

Message

**From:** Steven Riley [s.riley@ I&S]  
**Sent:** 29/03/2020 14:49:42  
**To:** WOOLHOUSE Mark [mark.woolhouse@ I&S]  
**Subject:** Re: SPI-M-O meeting - 30 March 2020 - Modelling input for interventions post 13 April

Thanks Mark - and thanks for being vocal in these discussions. Although the time we spend reviewing modelling output is valuable, I think its also important when we discuss the broader assumptions underlying the analyses.

On Sun, 29 Mar 2020 at 14:36, WOOLHOUSE Mark <Mark.Woolhouse@ I&S > wrote:

Steven,  
Good questions. I've been asking them for weeks!  
mw

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**From:** Steven Riley <s.riley@ I&S >  
**Sent:** 29 March 2020 14:30  
**To:** Graham Medley <Graham.Medley@ I&S >  
**Cc:** SPI-M <SPI-M@dhsc.gov.uk>; Andre.Charlett@phe.gov.uk <Andre.Charlett@phe.gov.uk>; angela.mclean113@mod.gov.uk <angela.mclean113@mod.gov.uk>; c.jewell@ I&S <c.jewell@ I&S >; Chris.robertson@ I&S <Chris.robertson@ I&S >; Daniela De Angelis <daniela.deangelis@ I&S >; Edwin.VanLeeuwen@phe.gov.uk <Edwin.VanLeeuwen@phe.gov.uk>; Ian Hall <ian.hall@ I&S >; lan.hall@phe.gov.uk <lan.hall@phe.gov.uk>; Jamie.LopezBernal2@phe.gov.uk <Jamie.LopezBernal2@phe.gov.uk>; John Edmunds <John.Edmunds@ I&S >; jonathan.read@ I&S <jonathan.read@ I&S >; Julia Gog <jrg20@ I&S >; m.baguelin@ I&S <m.baguelin@ I&S >; WOOLHOUSE Mark <Mark.Woolhouse@ I&S >; mattjkeeling@ I&S <mattjkeeling@ I&S >; neil.ferguson@ I&S <neil.ferguson@ I&S >; Nick.Gent@phe.gov.uk <Nick.Gent@phe.gov.uk>; Allen, Paul <Paul.Allen@dhsc.gov.uk>; paul.birrell@phe.gov.uk <paul.birrell@phe.gov.uk>; peter.white@phe.gov.uk <peter.white@phe.gov.uk>; Thomas.Finnie@phe.gov.uk <Thomas.Finnie@phe.gov.uk> NR  
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**Subject:** Re: SPI-M-O meeting - 30 March 2020 - Modelling input for interventions post 13 April

Thanks Graham and Mark,

some suggestions to both documents. Mainly around being careful not discount the possible objective of driving for lower levels of incidence.

Mark's points about the negative impacts of current interventions are well taken, but I do feel we need to balance those points against the negative impact of prolonged transmission near or above the maximum capacity of the NHS - both in terms of lives lost, indirect health outcomes and economic disruption. We should not naively assume that the UK is capable of rapidly reaching lower levels of infection, but neither can we be sure that we will not.

In particular, if the next policy objective is not to drive for very low incidence, we will need to give a consensus view on the duration of the epidemic. This might be best posed as a consensus view on what Rt would look like if we chose the least stringent of the suggested options.

There are no easy choices here. While understanding that the stated government objective is to save as many lives as possible, economic impact is also important. But has any other branch of government done a detailed assessment of what the economy would look like with a prolonged period of virus circulation at or near maximum NHS capacity? Is there a treasury team to whom we can send a plausible set of scenarios and ask directly how much better one scenario might be than another? We have a little bit of time and this question has arisen many times.

best

Steven

On Sat, 28 Mar 2020 at 14:36, Graham Medley <[Graham.Medley@I&S](mailto:Graham.Medley@I&S)> wrote:

This email from [Graham.Medley@I&S](mailto:Graham.Medley@I&S) originates from outside Imperial. Do not click on links and attachments unless you recognise the sender. If you trust the sender, add them to your [safe senders list](#) to disable email stamping for this address.

Dear SPI-M

Following from the email yesterday please find attached two draft documents.

“Social distancing options” is a general view on the question of relaxation of the current intervention. It is currently personal, so please fire away. Ideally we get something along these lines agreed on Monday. It is an important opportunity to set the scene for the subsequent work. I think that its also important to highlight that this next decision sets the tone for the longer time frame. This is for all SPI-M members and their teams. Productive discussion by email before Monday is encouraged.

“BSI and relaxed interventions” is a general outline for how we might use available contact/behaviour data to inform the impact of changes on transmission. This is more problematic, and I am far less confident that this is the right tack to take. This is mainly for the BSI sub-group but sent to everybody for thought. On Monday the aim will be to decide the way forward with this, ideally to get some results during Tuesday.

The final task of producing model projections based on potential changes will also be up for discussion. At a very minimum we should be thinking about producing model output that runs up to April 13th on current measures, and then projects forwards several months based on different relaxation measures, bracketed by the extremes of the current measures continuing and complete relaxation. I also think that we should try to produce some general rules, e.g. one extra week of  $R=0.6$  buys two extra weeks of no intervention, if possible.

Best wishes

Graham

**Graham Medley**

*Professor of Infectious Disease Modelling*

*Director of CMMID*

Dept of Global Health and Development



On 27 Mar 2020, at 19:31, SPI-M <[SPI-M@dhsc.gov.uk](mailto:SPI-M@dhsc.gov.uk)> wrote:

Dear SPI-M,

We have been asked to providing modelling input into the policy decisions that will be made leading up to 13 April, i.e. when the current restriction period is over. The options that are being considered range from retaining the current measures, to returning to the more relaxed pre-23 March measures including opening schools, work / leisure facilities etc. (but retaining guidance for vulnerable people and encouraging social distancing). The table in the attached word document gives some insight into the range of options.

We are proposing a three pronged response:

- First, we respond with a general overview of what the transmission dynamics tell us generally about the potential pathways forwards from this point. **Graham** will draft and circulate over the weekend, so that we can discuss and finalise on Monday.
- Second, we ask the BSI sub-group to consider how these different mixes of relaxations might change mixing and therefore R - it is a big policy decision to allow R to return to >1 compared to keeping it <1. Again, **Graham** will draft an outline of what we might do and circulate.
- Third, we ask the projections sub-group to prepare some illustrative projections over the coming N months based on the conclusions about how R will be influenced. We can discuss how this will work on Monday.

Unfortunately, this has been all requested for Tuesday evening. SPI-M and SAGE secretariat are pushing back on this deadline, but I hope we can deliver the first and second. The third will require more time I expect.

Best wishes,

**NR**

<image001.jpg>

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Department of Health and Social Care  
**Name Redacted** [@dhsc.gov.uk](mailto:Name Redacted@dhsc.gov.uk)  
Tel: **I&S**

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