Message

From: Whitty, Chris [Chris.Whitty@dhsc.gov.uk]
Sent: 29/01/2020 10:20:09 PM
To: john.edmunds I&S
CC: Patrick Vallance [P.Vallance1@go-science.gov.uk]
Subject: RE: delay

Thanks a lot and look forward to seeing output.

Ccing Patrick as this has importance beyond health

Chris

From: John Edmunds Irrelevant & Sensitive
Sent: 29 January 2020 20:54
To: Whitty, Chris <Chris.Whitty@dhsc.gov.uk>
Subject: Re: delay

Chris,

We are going to have a go at looking at the potential impact of mass school closure over the next few days. We won't have results until next week, but I will let you know as soon as we have something. One thing that you have to consider, when looking at this, is that we close schools anyway (holidays). This can impact the epidemiology fundamentally, as we saw in 2009, and the way to maximise the impact of a deliberate policy is to build it around the scheduled holiday periods.

All the best,

John

From: "Whitty, Chris" <Chris.Whitty@dhsc.gov.uk>
Date: Wednesday, 29 January 2020 at 20:33
To: Neil Ferguson <Irrelevant & Sensitive>, John Edmunds <Irrelevant & Sensitive>
Cc: Patrick Vallance <P.Vallance1@go-science.gov.uk>, Sharon Peacock <Sharon.Peacock@phe.gov.uk>, "Van Tam, Jonathan" <Jonathan.VanTam@dhsc.gov.uk>
Subject: Re: delay

Thanks both very much.

I will need to think this through. All very useful points; the ones in school closure probably have the greatest practical impact.

Chris

From: John Edmunds <Irrelevant & Sensitive>
Sent: Wednesday, January 29, 2020 7:34 pm
To: neil.ferguson I&S Whitty, Chris
Cc: Patrick Vallance; Sharon Peacock; Van Tam, Jonathan
Subject: Re: delay

Chris,

I think that Neil has summarised this very nicely. I have nothing much to add. My comments are:

1. Given the apparent speed of spread, it seems unlikely that contact tracing and isolation is going to be effective at buying us much time. Our experience of pandemic flu also suggested that this was rather ineffective and very resource intensive for PHE. We are looking at this issue more formally, however, and I will try and get something to you as soon as possible.
2. With regards more general measures to slow transmission in the community, the only one with any good evidence of effectiveness is school closure. As Neil rightly points out, if there is a lack of immunity across all ages (which is in contrast to the 2009 pandemic when adults had evidence of protection), then we would expect school closure to be less effective in this epidemic than in the pandemic. At present we have virtually no information on the age distribution of cases. This means that we have no way of inferring the role that children might play in spreading the disease. Until we know something about this (ideally along age-serological data on infections), we will have no idea of the potential impact of school closure. It is something that we can start to do quite quickly, however, if we get such data.

One other, unrelated issue:

I notice that returning individuals will be asked to quarantine themselves for 14 days. This may be a bit over the top. There is a nice paper by Jacco Wallinga's group that suggests that the mean incubation period is about 5 days. The upper CI on the mean is 7 days, with an upper limit of the range of of estimates being 11 days. This is now on Medrxiv (https://www.medrxiv.org/content/10.1101/2020.01.27.20018986v1) and has been submitted to peer review. I also enclose a copy of it here. I anticipate that this will be formally published very soon.

I have unfortunately missed both SAGE and NERVTAG this week (long-standing commitment) and so you may have discussed these data at those meetings. If you have, then ignore the above. I am bringing it to your attention, in case it has not been covered.

Best wishes,

John

From: Neil Ferguson <Irrelevant & Sensitive>
Date: Wednesday, 29 January 2020 at 11:12
To: "Whitty, Chris" <Chris.Whitty@dhsc.gov.uk>, John Edmunds <Irrelevant & Sensitive>
Cc: Patrick Vallance <P.Vallance1@go-science.gov.uk>, Sharon Peacock <Sharon.Peacock@phe.gov.uk>, "Van Tam, Jonathan" <Jonathan.VanTam@dhsc.gov.uk>
Subject: Re: delay

So delaying arrival requires either stopping travel from China or very intensive screening and follow-up of travellers. We can provide some crude estimates of delays achievable but I think John has being doing more on this. Predictions will depend on the frequency of mild cases which might still transmit.

If you are more referring to delaying the peak if the epidemic via public health interventions, it is harder to produce predictions. There are two broad classes of such interventions: 1. case based such as isolation of cases and contact tracing; and 2) community level interventions - principally school closure.

Case based interventions are not easily scaleable beyond a certain point, obviously - the challenge China is facing now, and which West Africa faced in the Ebola epidemic. Community interventions are more scaleable but generally have high socioeconomic impacts.