Minutes of SPI-M meeting: 17 March 2023

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Meeting details

The meeting was held on 17 March from 13:30 to 14:30 on Microsoft Teams.

The co-chairs were Matt Keeling (acting academic chair) and Thomas Waite (government chair).

Attendees

From the Scientific Pandemic Infections group on Modelling (SPI-M):

- Marc Baguelin

- Paul Birrell

- Ellen Brooks Pollock

- Louise Dyson

- John Edmunds

- Jessica Enright

- Neil Ferguson

- Tom Finnie

- Christophe Fraser

- Julia Gog

- Ian Hall

- Thomas House

- Rowland Kao

- Adam Kucharski

- Nick Watkins

Observers:

- Hayley Butcher (Department of Health and Social Care (DHSC))

- Lucy Chappell (DHSC)

- Sarah Deeny (UK Health Security Agency (UKHSA))

- Natasha Grant (Civil Contingencies Committee (COBR))

- Harry Mayhew (UKHSA)

- Nick Taylor (Office of National Statistics (ONS))

There were an additional 15 observers whose names have been redacted as well as 6 members of the secretariat.

Presenters:

- Morwenna Carrington (DHSC)

- Meera Chand (UKHSA)

- Fergus Cumming (UKHSA)

Participant apologies:

- Daniela De Angelis

- Declan Bradley

- Andre Charlett

- Michael Gravenor

- Graham Medley

- Steven Riley

- Chris Robertson

- Christopher Williams

Introduction

Matt Keeling was acting academic chair for the meeting, as Graham Medley was unavailable.

Background and policy context

DHSC Policy gave the background policy context to update the group on the advice required related to epidemiological modelling for avian influenza planning.

UKHSA's technical risk assessment for avian influenza puts the UK at risk level 3. This reflects evidence of viral genomic changes that provide an advantage for mammalian infection and represents a significant change compared to previous influenza seasons.

The avian influenza scenarios being developed by UKHSA will initially be used to inform any contingency planning which is undertaken by DHSC and UKHSA.

Avian influenza scenarios

UKHSA outlined the 3 scenarios being developed to inform contingency planning with a specific focus on the H5N1 strain of avian influenza.

Mild, severe and extremely severe scenarios were presented. It is not possible to know the key characteristics of a H5N1 strain which can transmit in humans, so these scenarios are not predictive.

Participants discussed the approach to developing the scenarios. The issues discussed included: the development of modelling and scenarios more specific to H5N1, whether the modelling should focus on growth rates as its input, the impact of different testing scenarios on time to detection and what community and hospital testing may be required for identifying which scenario was most representative of a future outbreak.

UKHSA are keen to engage with SPI-M on the modelling inputs and approach as the scenarios are developed.

Discussion on the parameters used in the scenarios

Participants discussed whether the parameters outlined in the scenarios were appropriate. The parameters discussed were the basic reproduction number (R0), serial interval, severity by age, the proportion of infections which are symptomatic, and length of stay in hospital.

Participants highlighted the role of public behaviour and the fact that it might change to reduce transmission, limiting the potential worst-case scenario.

Participants discussed whether the infection hospitalisation and fatality rates (IFRs) in the most severe scenario were too severe. The IFR among elderly groups in the most severe scenario was compared with the case fatality rate during the first COVID wave. It was also agreed that there needed to be some planning for mass absence from work.

6 Risk levels for the impact of avian influenza on human health

UKHSA provided an update on the risk levels being developed for monitoring avian influenza and led the discussion on how to identify movement between levels.

There was particular focus on how to identify a shift from the current level 3 (limited mammalian transmission) to level 4 (limited human transmission).

Participants discussed whether genomics data could be used to identify movement between risk levels. UKHSA clarified that this is one of the indicators which will be considered as part of the reviews of the risk level.

AOB

DHSC and UKHSA are building a programme of work on avian influenza. The committee will be consulted as this programme develops and further advice is required.

UKHSA would benefit from a smaller working group to consult as the modelling is developed.

Action: secretariat to follow up by email asking for volunteers to take part in a small working group.