

**Precautionary Meeting of the Scientific Advisory Group for Emergencies  
Zika Virus**

**Summary Minute of 5<sup>th</sup> Meeting**

**2 August 2016**

**1 Victoria Street Conference Centre, London, SW1H 0ET**

**List of attendees**

**Chairs**

Sir Mark Walport	Government Chief Scientific Adviser
Chris Whitty	Chief Scientific Adviser, DH

**Attending**

Emma Aarons	Public Health England
Oliver Brady	London School of Hygiene and Tropical Medicine
Paul Cosford	Public Health England
Tom Evans	University of Glasgow and Chair of ACDP
Jenny Harries	Public Health England
Dilys Morgan	Public Health England
Helen Roberts	Animal and Plant Health Agency
Gavin Sreaton	Imperial College London

**Dialling in**

Neil Ferguson	Imperial College London
Cathy Roth	Department for International Development
Charlotte Watts	Chief Scientific Adviser, DFID
Hugh Willison	University of Glasgow

**Secretariat**

Colin Armstrong	Government Office for Science
Laurel Morris	Government Office for Science
Jack Wardle	Government Office for Science

**Observers**

Patrick Bragoli	Foreign and Commonwealth Office
Mike Edbury	Government Office for Science
Basheer Khan	Department of Health
Alexandra Lee	Department of Health
Alex McLaughlin	Department of Health
Jasdeep Sandhu	Department for International Development
Victoria Stephens	Department of Health
Stuart Wainwright	Cabinet Office

## **ACTIONS**

1. **Secretariat** to revise risk statements and circulate to Pre-SAGE members to confirm that they were content with the wording.
2. **Pre-SAGE members** to continue to make Secretariat aware of any major scientific developments.
3. **Secretariat** to update science advice document with suggested changes, following up where appropriate with individuals who suggested new text.

## **AGENDA ITEM 1: WELCOME**

The chairs welcomed participants to the fifth pre-SAGE meeting, which had been convened due to the heightened public interest prior to the Olympics. The Chairs welcomed Cathy Roth, Gavin Screaton and Neil Ferguson to the meeting. Attendees were informed that they should continue to speak to the media in their capacity as experts but content from pre-SAGE meetings was to be treated as confidential.

## **AGENDA ITEM 2: UPDATE ON LATEST SITUATION**

As of 1 August 2016, a total of 53 countries, territories and areas had reported active Zika transmission in the last three months. A total of 14 cases had been confirmed in the Miami-Dade county of Florida with the majority of these cases being women. In the UK, a total of 53 cases had been diagnosed in returning travellers since 2015. Thirteen of these cases had returned from Jamaica.

## **AGENDA ITEM 3: SEXUAL TRANSMISSION OF ZIKA VIRUS**

As of 26 July 2016, 33 probable cases of sexual transmission of Zika virus had been reported globally. The vast majority of cases had been transmitted to women from men who experienced typical Zika symptoms at or before the estimated time of sexual transmission. There had been one report of sexual transmission by an asymptomatic individual to their sexual partner (male-to-female transmission). In addition, there had been one report each of male-to-male transmission and female-to-male transmission, although these were thought to be rare events.

The longest interval after symptom onset that sexual transmission was reported was 34-41 days. Unpublished studies have, however, found Zika virus RNA in semen for up to 92 days post symptom onset. The US have started a number of large studies to get better data on persistence of Zika virus in semen and the risk of sexual transmission. It was recommended that the data from these studies be shared with pre-SAGE members when available.

It was noted that public communication on the risk of sexual transmission should be monitored. A number of recent announcements had been misinterpreted in the media.

## **AGENDA ITEM 4: FUTURE DYNAMICS OF THE EPIDEMIC**

The group reviewed recent research on the future of the epidemic in Latin America. Modelling by Imperial College London and Johns Hopkins Bloomberg School of Public Health suggested that the epidemic in Latin America would be largely over within three years albeit with sporadic smaller localised outbreaks. The levels of immunity built up in exposed populations would result in a delay of more than a decade before further large epidemics were possible. These future epidemics would mainly affect younger generations who had not been previously been exposed to the virus.

There remained some uncertainty on how Zika virus interacted with dengue virus, which could have implications for modelling. While it remained possible that immunity to dengue might provide protection against Zika virus there was some evidence it could drive greater replication of the virus. This could have implications for the possible roll out of both dengue and Zika vaccines.

Additional serology data would also allow more precise estimates to be made on the duration of the current epidemic, levels of herd immunity and the timing, duration and size of future outbreaks. It was suggested that such data would be available by the end of the year.

In terms of microcephaly, there was initial evidence of a spatial mismatch with a huge numbers of cases in the north east Brazil and limited cases elsewhere. This suggested that Zika infection in addition to other confounders could result in microcephaly.

In terms of spread to the rest of the world, it was likely that there had been many introductions of the virus into South East Asia in people returning from the Americas over the past few months. It was unknown why a widespread outbreak had not been experienced in this region. Factors such as the virus being endemic or poor surveillance might explain this.

There was good evidence that immunity developed in response to infection is highly protective against future infection. There was, however, limited evidence on the duration of protection. Animal data provided some reassurance that individuals previously infected with the African strain would be protected against the Asian strain.

#### **AGENDA ITEM 5: RISK COMMUNICATION**

Since the last pre-SAGE meeting, a light-touch Delphi approach utilising expert judgement had been undertaken to develop numerical assessments for a range of risks associated with Zika. The group reviewed these and agreed that the final assessments could be used in the public domain as and when needed.

**ACTION 1: Secretariat to revise risk statements and circulate to Pre-SAGE members to confirm that you they are content with the wording.**

#### **AGENDA ITEM 6: REVIEW OF THE SCIENCE ADVICE DOCUMENT**

The group agreed that small changes were needed to the advice on:

- Relationship and interaction between Zika and dengue
- Risk of sexual transmission
- Spraying of aircraft
- Availability of vaccines

**ACTION 2: Pre-SAGE members to continue to make Secretariat aware of any major scientific developments.**

**ACTION 3: Secretariat to update science advice document with suggested changes, following up where appropriate with individuals who suggested new text.**

#### **AGENDA ITEM 7: AOB**

The group noted that an information note on Guillain-Barré syndrome had been developed and sent to the British Olympic Association. A group of experts had been identified that would come together if a case of GBS was identified to discuss approaches for repatriation.

The Chairs stated that the next meeting would be held in autumn.