1. Before consideration of measures to reduce spread is undertaken, it is essential to understand the ability of surveillance methods to pick up evidence of an epidemic (and how those methods might be improved), understand when evidence will become available, and – from that surveillance – the likely trajectory of an epidemic.

2. It is also essential to understand the objectives behind seeking to manage the epidemiological curve, informed by key challenges the NHS is seeking to mitigate.

Situation update

3. There is evidence of local transmission unlinked to individuals who have travelled from China in Japan, Republic of Korea and Iran.

4. There is evidence from China and Hong Kong that social distancing measures have had some impact in limiting the outbreak.

Understanding COVID-19

5. SAGE agreed there was no reason to revise the agreed numbers for key variables.

6. Duration of illness: SAGE table should read “great variance” regarding the median, rather than “great uncertainty”.

Actions:

- NHS England to provide SPI-M with a list of precise and essential criteria upon which NHS planning depends (for example is an estimate of the percentage of patients needing respiratory support, and for how long, the most important thing to know for planning?), in order for SPI-M to model these in different outbreak scenarios

Measures to limit spread

7. Before consideration of measures to reduce spread is undertaken, it is essential to understand the ability of surveillance methods to pick up evidence of an epidemic (and how those methods might be improved), understand when evidence will become available, and – from that surveillance – the likely trajectory of an epidemic.

8. It is also essential to understand the objectives behind seeking to manage the epidemiological curve (for example flattening the peak, spreading the duration, avoiding winter), informed by key challenges the NHS is seeking to mitigate.

9. Once there is clarity on those issues, SAGE should review all potential methods to limit spread (schools, travel, large gatherings, home working), including their likely relative effectiveness.

Actions

- NHS England to clarify for SAGE the profile of the epidemic that would allow the best NHS response

16. SAGE discussed a SPI-M paper on modelling of school closures, assuming children have a transmission role for COVID-19 similar to that of influenza.

17. It is possible that school closures could have a modest impact on delaying the peak of an epidemic, but timing of intervention will be key and this will require the ability to detect and monitor any outbreak with good surveillance.

18. Sequential serological evidence represents the best means to predict epidemiological peak.

19. A systematic review of the literature on school closures found greater parental compliance with shorter durations (2 weeks; there is no apparent evidence of school closures lasting more than 4 weeks).

20. Social mixing is inevitable with longer closures, but could be mitigated by effective public messaging (including a clear explanation of the purpose of closures).

Actions

- SPI-M to consider the impact of selective school closures in different outbreak scenarios, framed by NHS needs
- PHE to update SAGE at future meetings on progress on serology test development

Review of reasonable worst-case (RWC) scenario and planning

21. There is currently no new data prompting review of the RWC planning assumptions.

List of actions

- NHS England to provide SPI-M with a list of precise and essential criteria upon which NHS planning depends (for example is an estimate of the percentage of patients needing respiratory support, and for how long, the most important thing to know for planning?), in order for SPI-M to model these in different outbreak scenarios
- NHS England to clarify for SAGE the profile of the epidemic that would allow the best NHS response
- SAGE to review all possible interventions to limit the spread of the disease at a dedicated future meeting, including an assessment of the effectiveness of these inventions, based on advice from SPI-M and SPI-B
- SPI-B to consider the likely public response to interventions to limit the spread of the disease, and the impact of public response on the effectiveness of such interventions; SPI-B also to consider what conditions could lead to civil disturbance
- PHE to share detailed proposals for surveillance (numbers, locations, methods) from clinical settings with SPI-M
- SPI-M to provide a consensus view (with confidence intervals) on the impact of PHE surveillance proposals, and to identify potential improvements; this should include consideration of:
    - at what stage an outbreak will be detected (including appropriate geographical coverage)