

Potential impact of behavioural and social interventions on an epidemic of Covid-19 in the UK

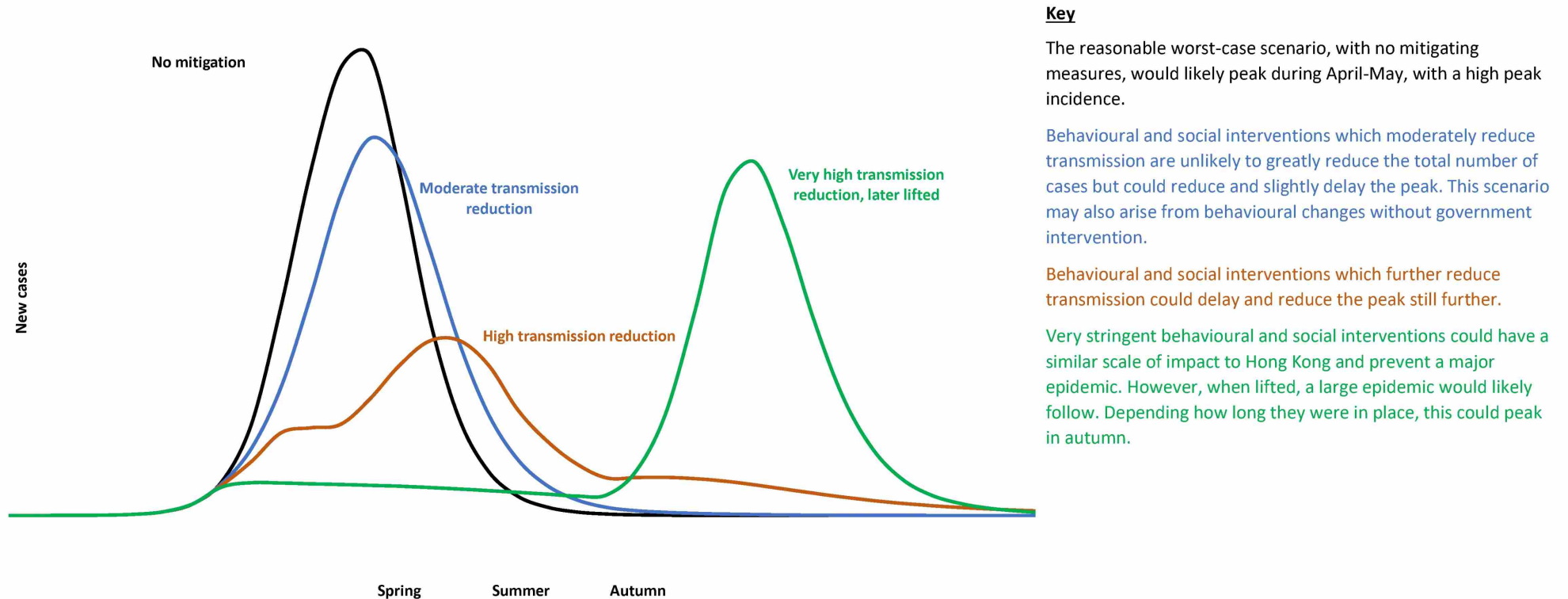
Purpose:

1. This outlines the available scientific evidence base around the behavioural and social interventions (previously referred to as non-pharmaceutical interventions) that could be applied as part of the HMG response to a UK epidemic of Covid-19, including the expected impacts on the spread of the virus and public behaviours. The note does not cover economic, operational or policy considerations.
2. SAGE has not provided a recommendation of which interventions, or package of interventions, that Government may choose to apply. Any decision must consider the impacts these interventions may have on society, on individuals, the workforce and businesses, and the operation of Government and public services.

Background:

3. In the event of a severe epidemic, the NHS will be unable to meet all demands placed on it. In the reasonable worst-case scenario, demand on beds is likely to overtake supply well before the peak is reached.
4. There are a range of behavioural and social interventions which are evidenced as having been effective in responding to historic epidemics. These interventions are also well understood by the public and have been enacted in other countries.
5. Applying these interventions could be helpful in containing an epidemic to some degree or changing the shape of the epicurve, see figure 1, making the response of the NHS and other sectors more sustainable. The objectives of these interventions could be to:
 1. Contain the outbreak so that it does not become an epidemic (note – this may not be fully achievable);
 2. Delaying the peak so it occurs when the NHS is out of Winter pressures; and
 3. Reducing the size of and/or extending the peak so that the response by the NHS and other sectors can be maintained more sustainably.
6. Any intervention would need to be Government policy for a significant duration in order to see the benefit, as removing and/or relaxing the intervention before this could result in further peaks and potentially extend transmission of the virus into Winter 2020.
7. SAGE will consider the points below in further detail on 5 March:
 - o Optimal combination of interventions to achieve the objectives above,
 - o Optimal point to enact these interventions,
 - o Duration that these interventions should be in place to achieve the objectives above.

Illustrative impact of behavioural and social interventions lasting several months on a reasonable worst-case epidemic (Figure 1)



Please note: The scale and timings of the epidemic curves in this diagram are illustrative only, but their patterns are robust.