

household quarantining (14 days) and social distancing of vulnerable groups (higher risk group with tighter control) and over 70s (larger lower risk group) Figure 2.

General conclusions on the impact of behavioural and social interventions during the reasonable worst-case scenario

12. Any of the measures listed in Annex I below could, on their own, potentially flatten and extend the peak of the epidemic by some degree. This would prolong the outbreak, but the lower maximum case numbers would reduce pressures on the NHS and other sectors. However, it should be noted that even without Government intervention, public behavioural change will have some (potentially very significant) effect.
13. A combination of these measures is expected to have a greater impact: implementing a subset of measures would be ideal. Whilst this would have a more moderate impact it would be much less likely to result in a second wave. In comparison, combining stringent social distancing measures, school closures and quarantining cases, as a long-term policy, may have a similar impact to that seen in Hong Kong or Singapore, but this could result in a large second epidemic wave once the measures were lifted.
14. The timing of the interventions would be critical. It will not be possible to time their starting date optimally or identify the areas which will be most impacted first. A clearer understanding of when to turn on interventions is emerging from SAGE and is linked to cases identified in ICU surveillance. Ongoing monitoring will be essential to enable analysis of whether to ramp up interventions or lift them.
15. As the epidemic develops, the peak number of cases in each county may occur at different times. Modelling suggest this will be spread over around a 4 week period. As such national interventions, if enacted, would be in place earlier in the epidemiological curve in some areas than others.
16. These interventions assume compliance levels of 50% or more over long periods of time. This may be unachievable in the UK population and uptake of these measures is likely to vary across groups, possibly leading to variation in outbreak intensities across different communities. Overall policy effectiveness of home isolation and whole household isolation shows a linear dependence on the assumed compliance with case isolation. A reduction in compliance of 20% in home isolation and whole household isolation measures, when combined with social distancing for vulnerable groups would only lead to a modest reduction in the effect (around 5% in the peak bed demand and total deaths).