S3 Text. Prior distributions

**Modelling initial decrease in mobility**
All effect sizes were given Normal priors centred at zero with standard deviations of 1. Baseline trip rates were parameterised on the log scale with Normal priors centred at -3 with standard deviations of 0.5. Note that baseline trip rates were treated as random parameters and integrated out (via a Laplace approximation) at each step of the optimisation. The weekly city-wide rates of decrease in mobility, $c_k$, were also parameterised on the log scale with an AR(1) prior, with $\phi = 1$, $c = 0$, $\epsilon = 0.1$.

**Modelling mobility over summer**
All effect sizes were given Normal priors centred at zero with standard deviations of 1.