

BUBBLES DURING LOCKDOWN RELAXATION

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1 Headline results

- We considered a household model, and worked out the growth rate using the Euler-Lotka equation and a path integral approach. Parameters are set to plausible COVID natural history, and in the absence of interventions a 3-day doubling time is assumed.
- We considered scenarios of baseline household compositions; $1+1$ households form bubbles that behave like size 2; $1+n$ households form bubbles that behave like size $(1+n)$; $2+2$ household form bubbles that behave like size $(2+2)$; $2+n$ households form bubbles that behave like size $(2+n)$; and half of size-1 & half of size-2 households combine with n .
- These are plotted against compliance with social distancing to see how a bubble strategy might change emergence from lockdown.
- Even at very high uptake, such bubbles have a measurable but not particularly large effect for two different assumptions about the relative weighting of within- and between-household transmission
- Methodological details and code available on request.

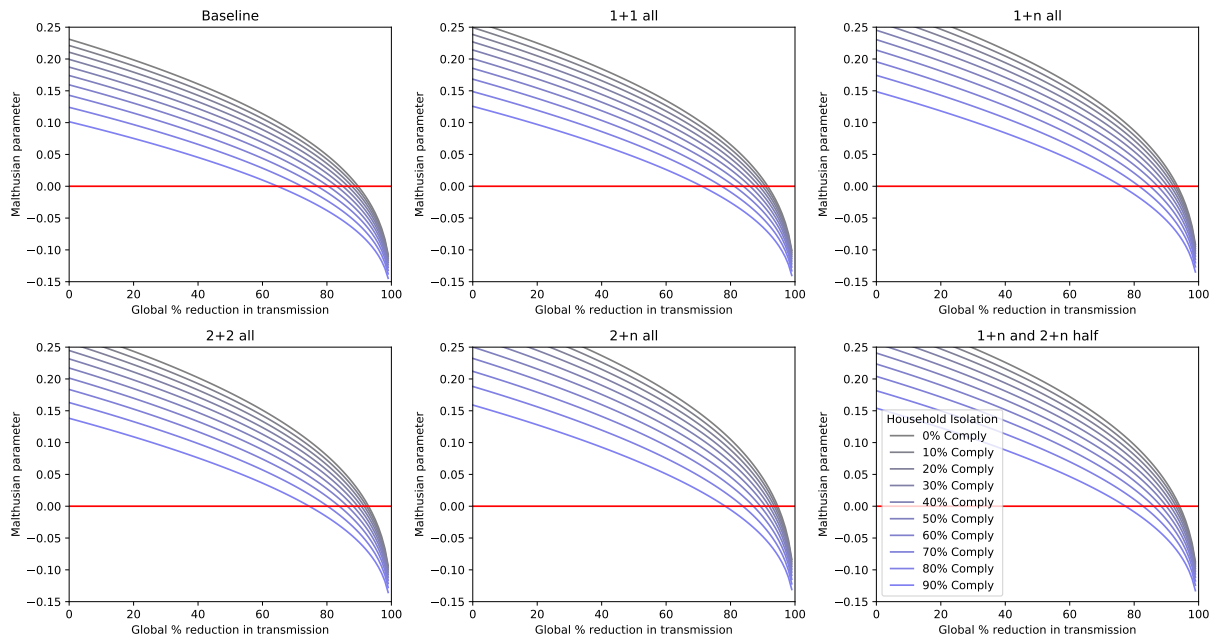


Figure 1: Low within-household transmission

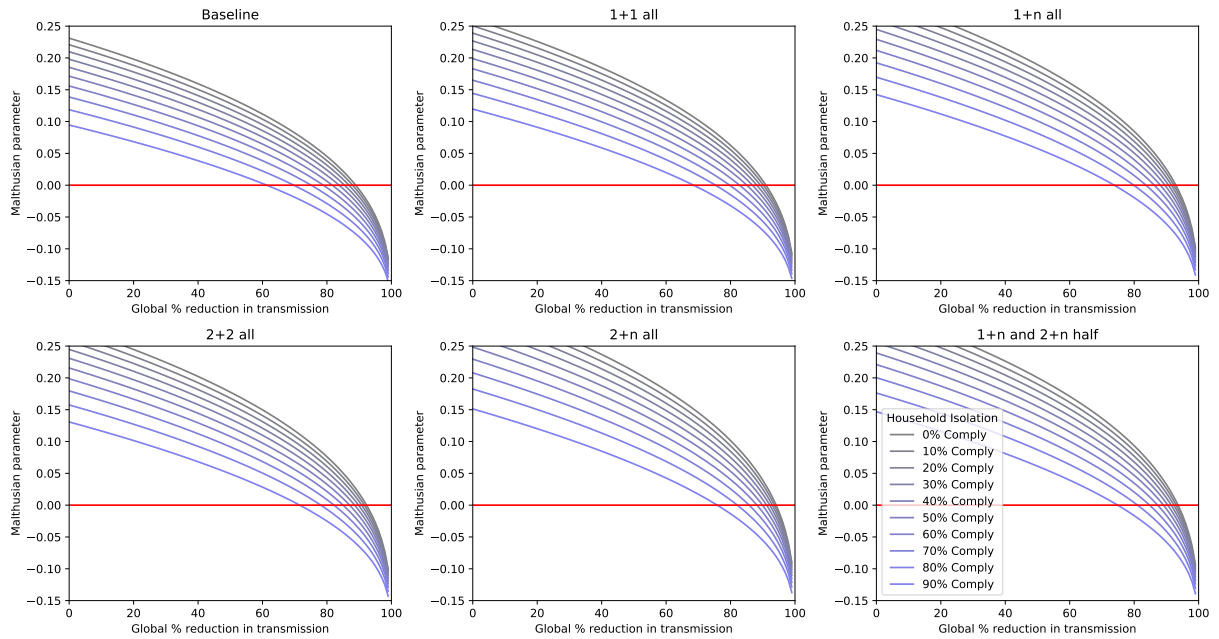


Figure 2: High within-household transmission