

The horizontal axis in Figure S1 tracks the change in number of tests from 2016–2017, while the vertical axis measures the percentage point change in positivity from 2016–2017. For example, point A on Figure 2 reflects the increase in positivity needed (1.8 percentage points) for there to be no change in the number of tests, at a high starting positivity. Alternatively, at point B over 830,000 additional tests would be required if positivity were low and stable over time.

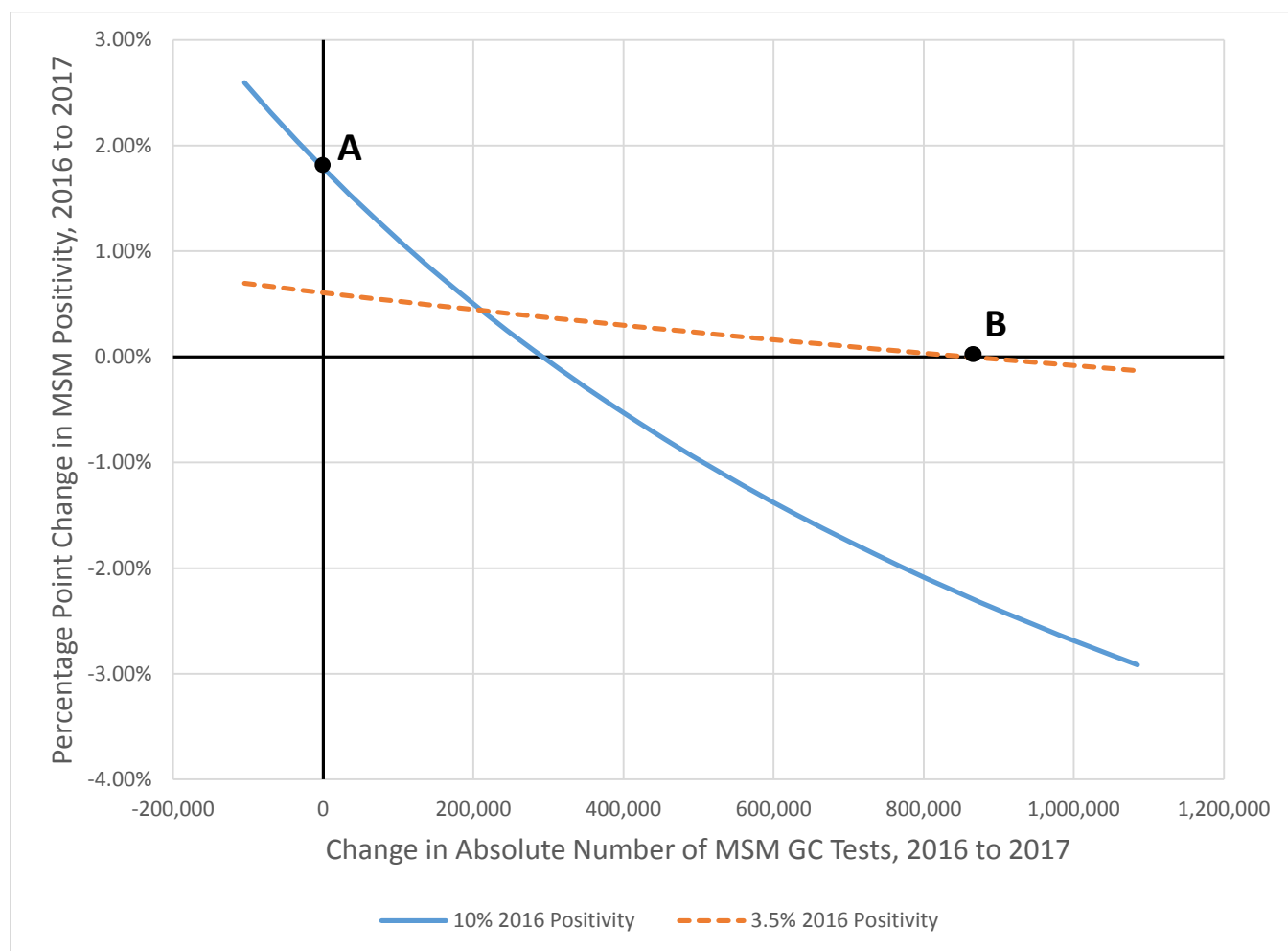


Figure S1. The relationship between changes in MSM positivity and changes in the number of tests among MSM, 2016 to 2017. The vertical axis in Figure 2 tracks changes in MSM positivity, and the horizontal axis tracks changes in the number of MSM tests. Each line represents how the two factors can be changing simultaneously, at different starting levels of MSM positivity.

Each line in Figure S1 reflects the following relationship, under varying assumptions about 2016 positivity:

$$\text{Change in Positivity} = \frac{\text{Cases}_{2017} * \text{Positivity}_{2016}}{(\# \text{tests}_{2017} - \# \text{tests}_{2016}) * \text{Positivity}_{2016} + \text{Cases}_{2016}} - \text{Positivity}_{2016}$$