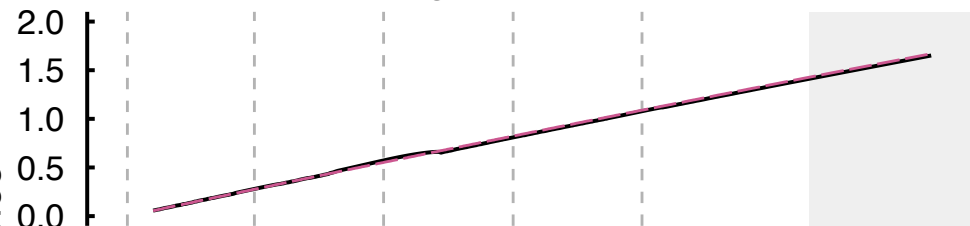
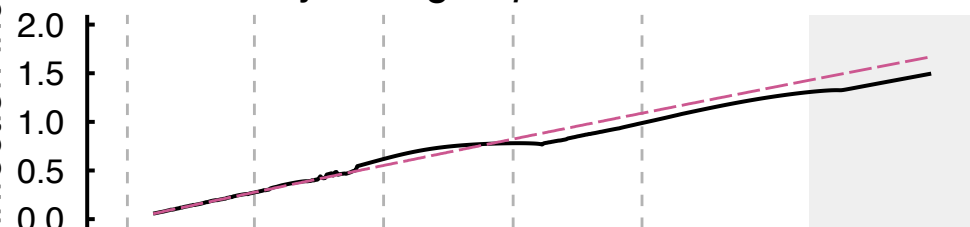


## Annual infection incidence

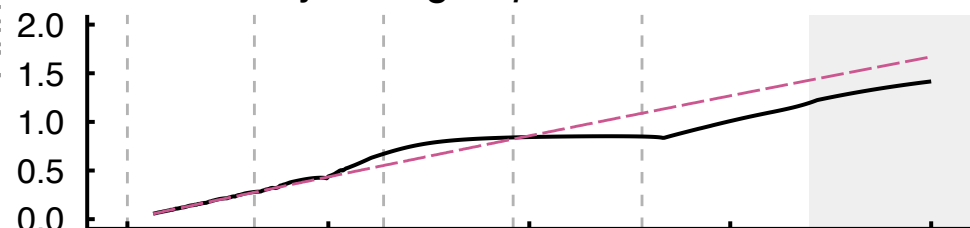
Seasonality strength  $\eta = 0.1$



Seasonality strength  $\eta = 0.3$



Seasonality strength  $\eta = 0.5$



0.000 0.025 0.050 0.075 0.100

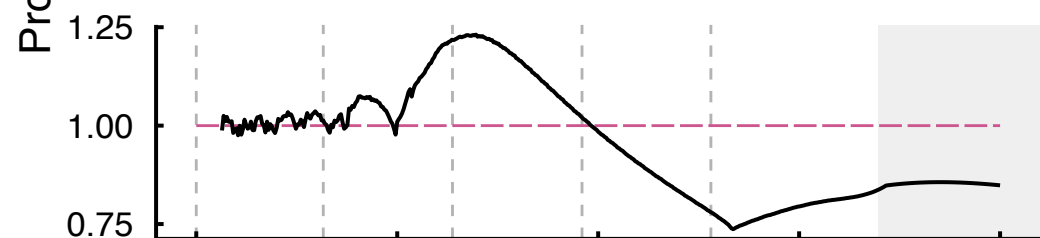
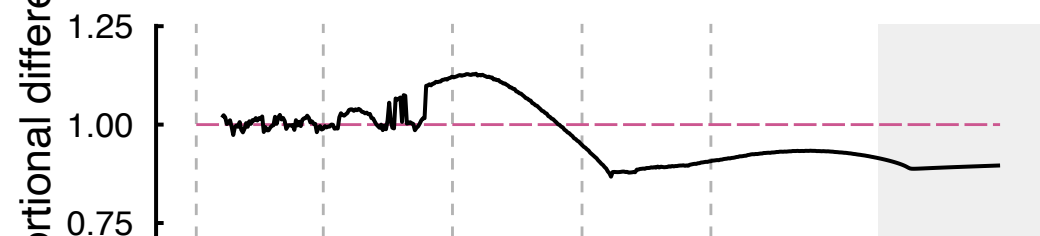
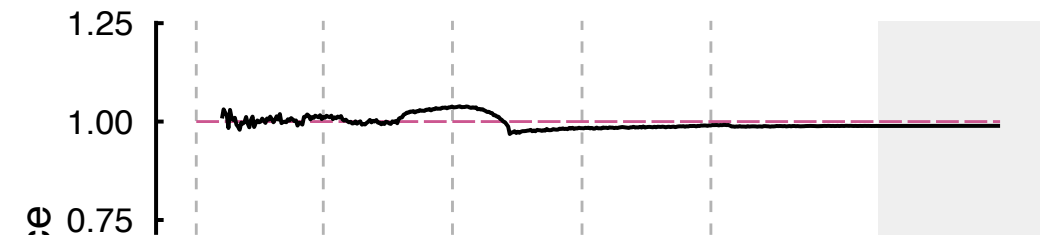
Mean antibody decay rate  $r$



0 0.5 1 1.5 2

Natural frequency without seasonality (years<sup>-1</sup>)

## Proportional difference in annual infection incidence



0.000 0.025 0.050 0.075 0.100

Mean antibody decay rate  $r$



0 0.5 1 1.5 2

Natural frequency without seasonality (years<sup>-1</sup>)