

Supplementary Materials for

**The rapid replacement of the Delta variant by Omicron (B.1.1.529) in England**

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**The PDF file includes:**

Figs. S1 to S11  
Table S1

**Other Supplementary Material for this manuscript includes the following:**

MDAR Reproducibility Checklist

**Supplementary Material for:**

**THE RAPID REPLACEMENT OF THE DELTA VARIANT BY OMICRON (B.1.1.529) IN ENGLAND**

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## Supplementary Figures

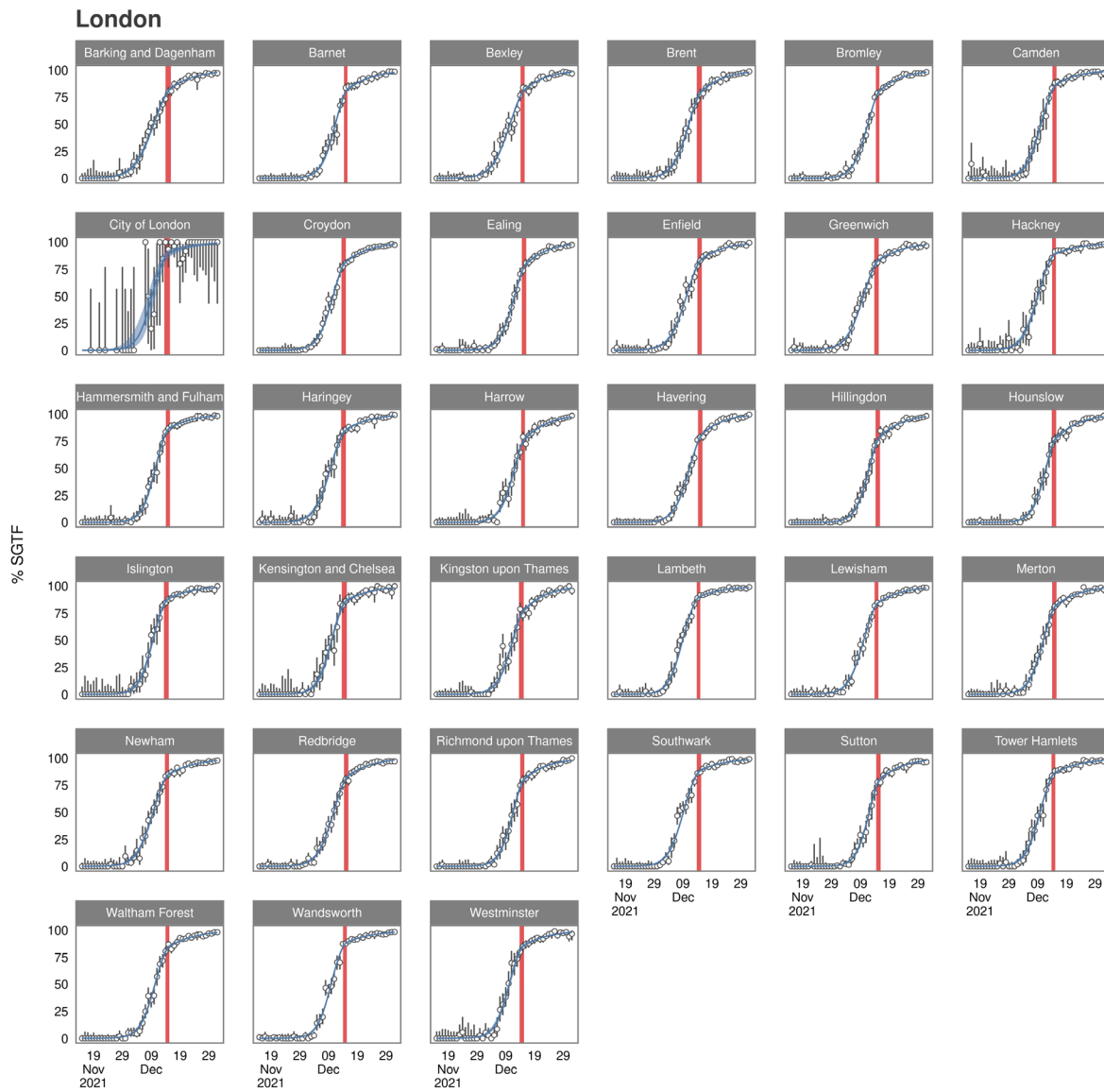


Figure S1: Model fit for London LTAs.

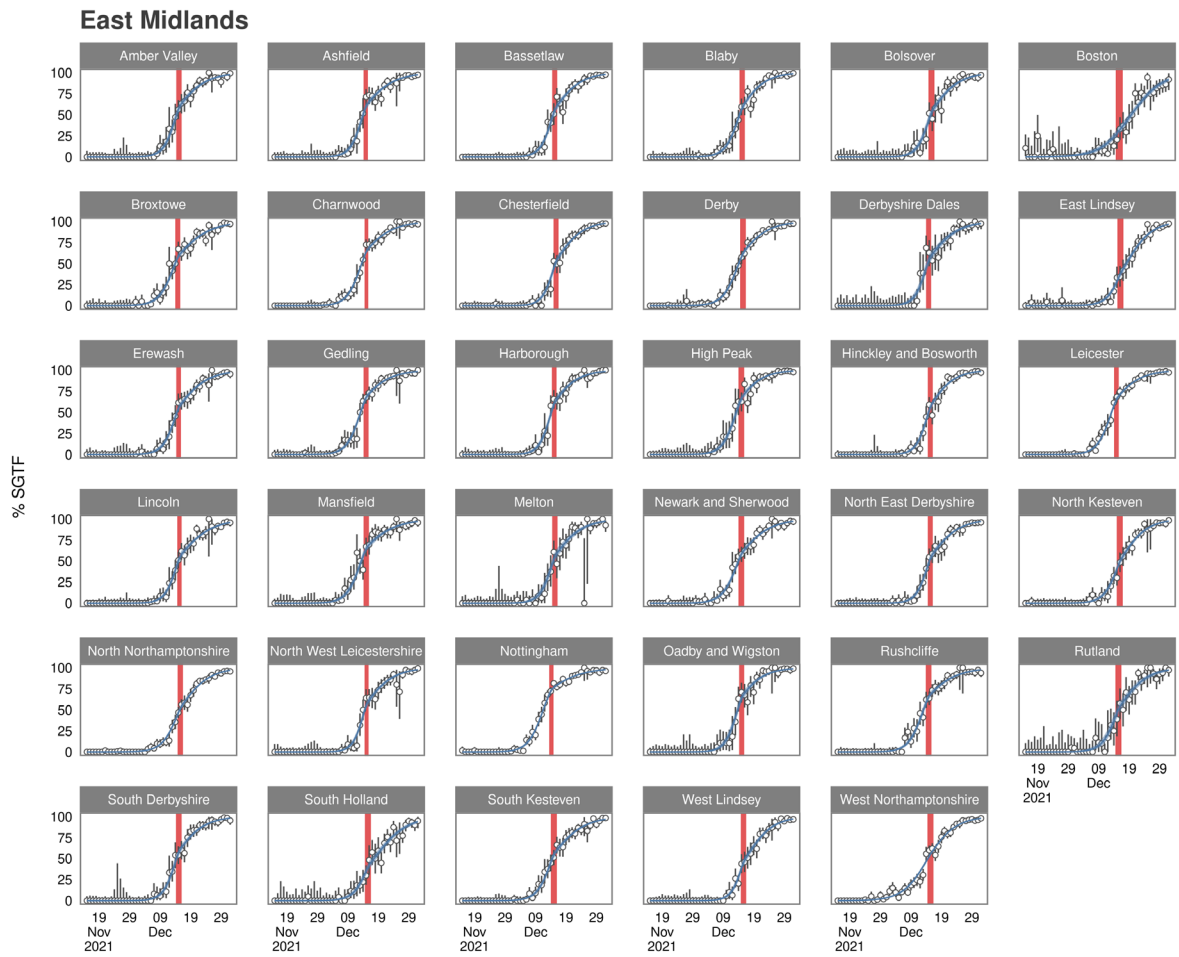
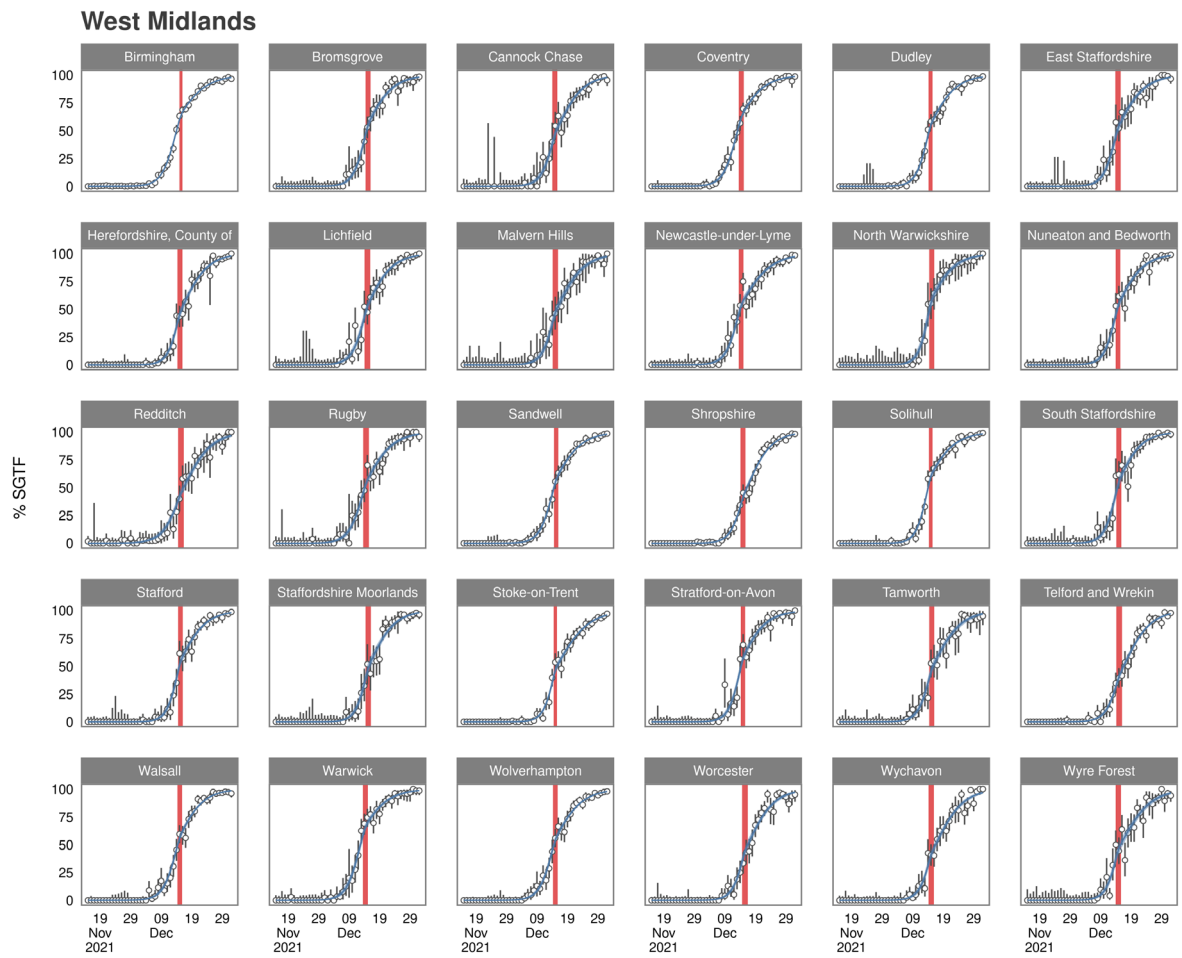
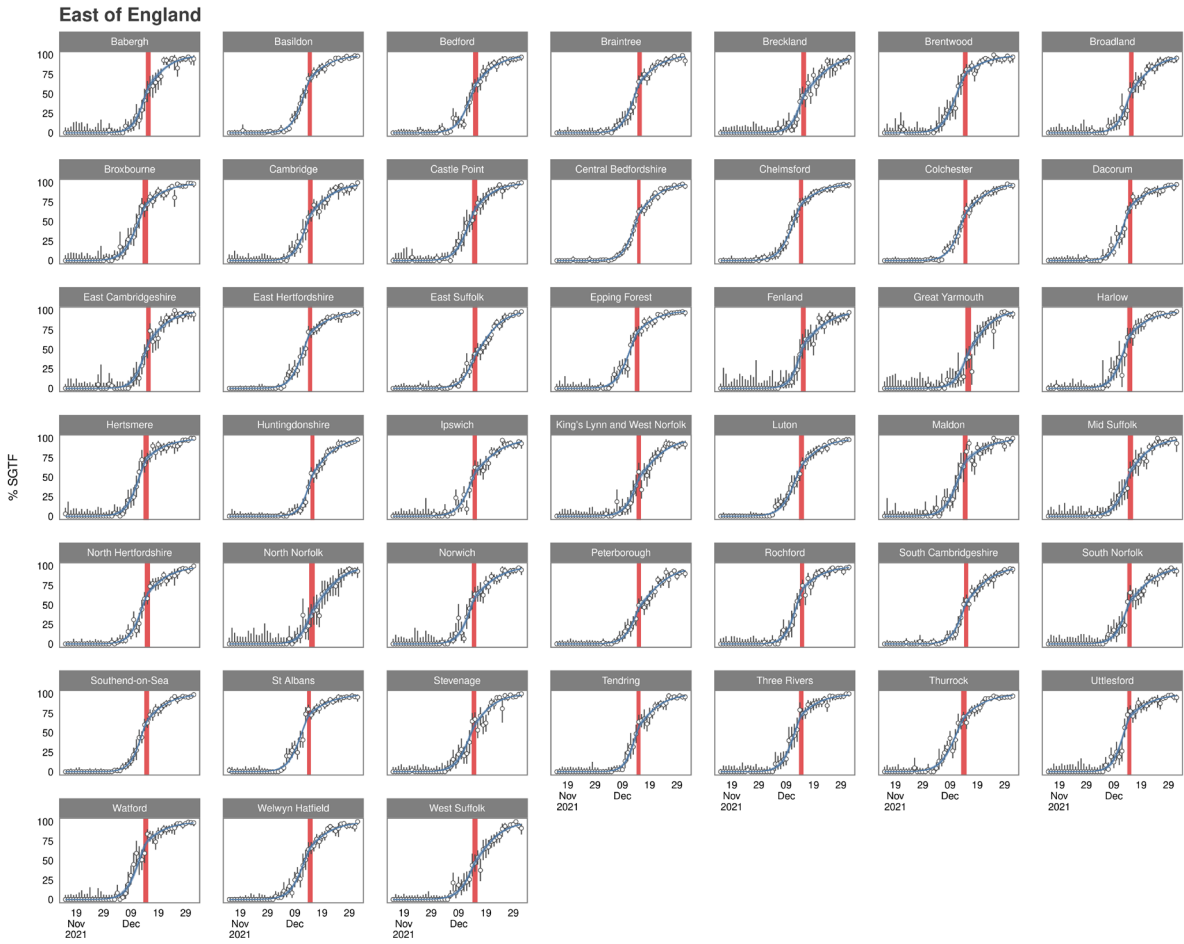


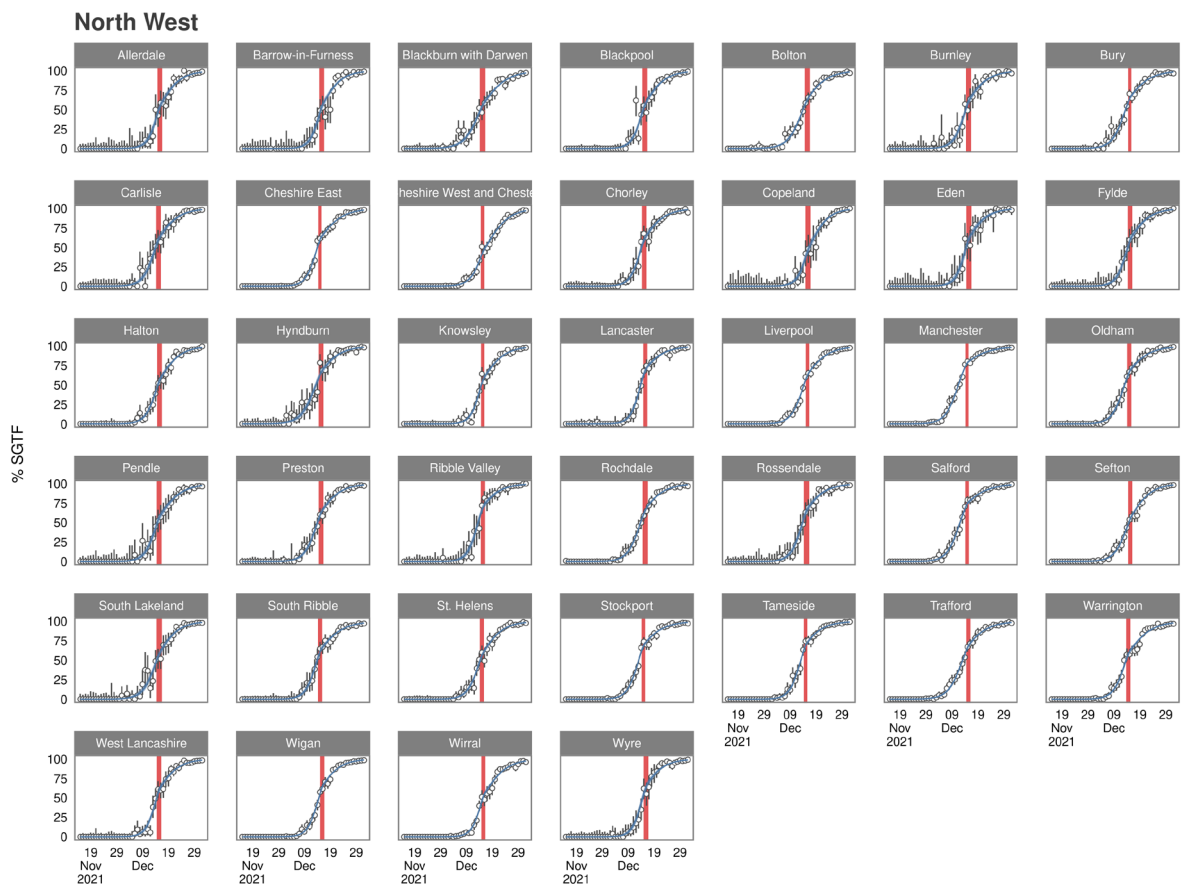
Figure S2: Model fit for LTLAs in the East Midlands.



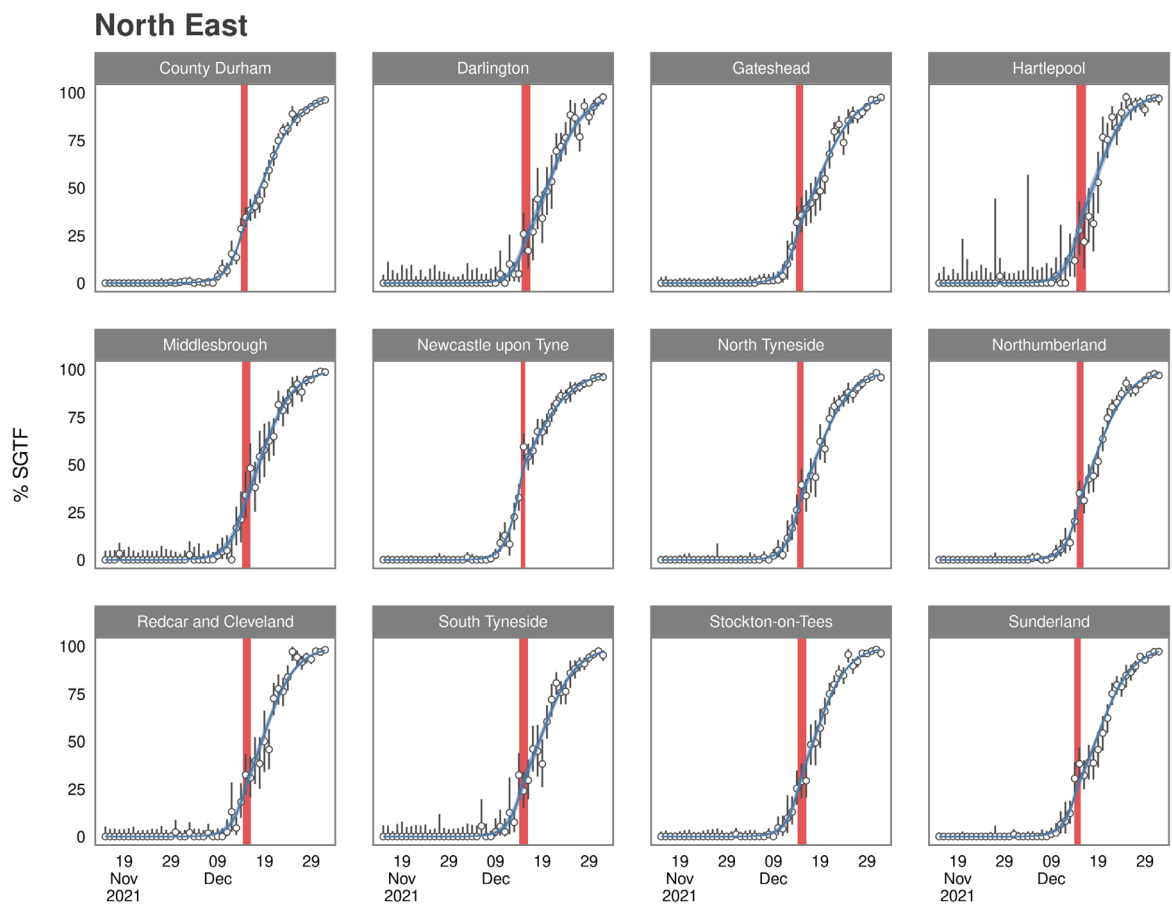
**Figure S3: Model fit for LTLAs in the West Midlands.**



**Figure S4: Model fit for LTAs in the East of England.**

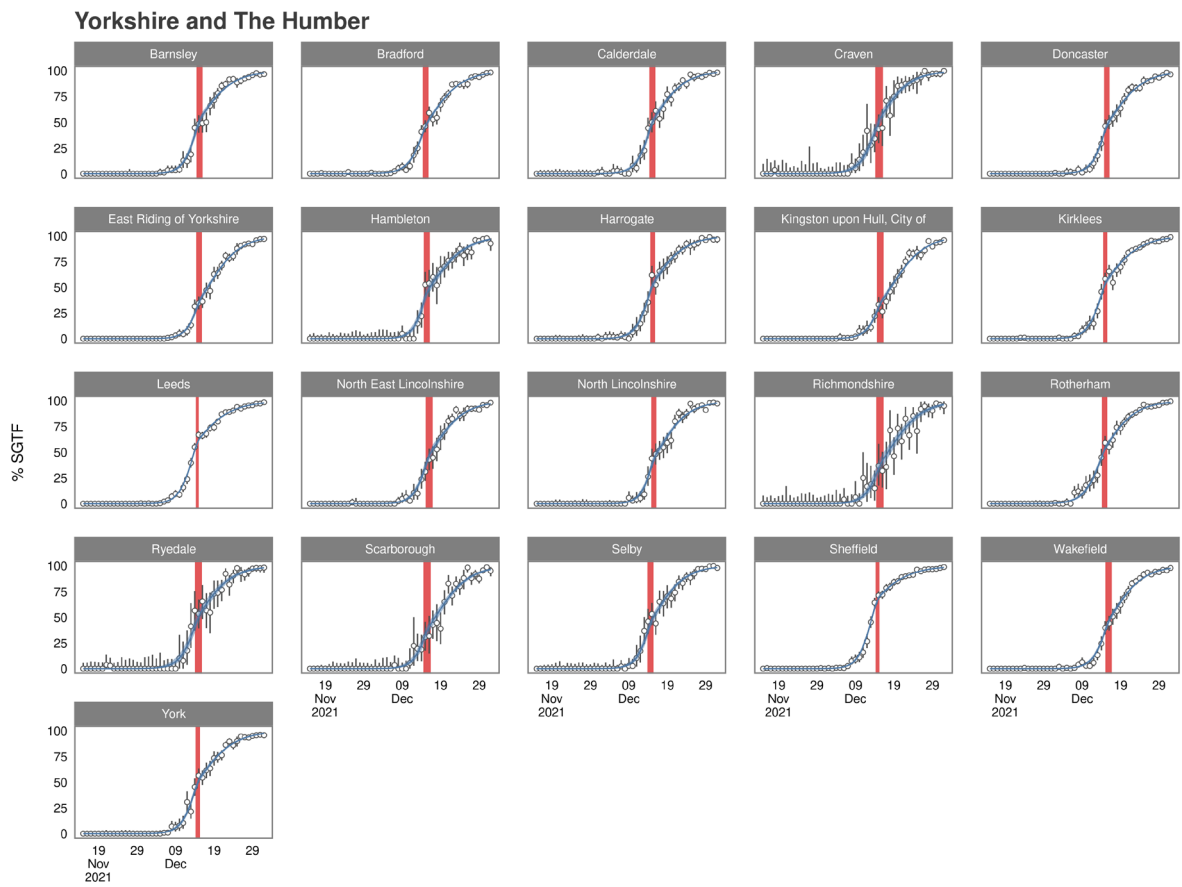


**Figure S5: Model fit for LTLAs in the North West.**

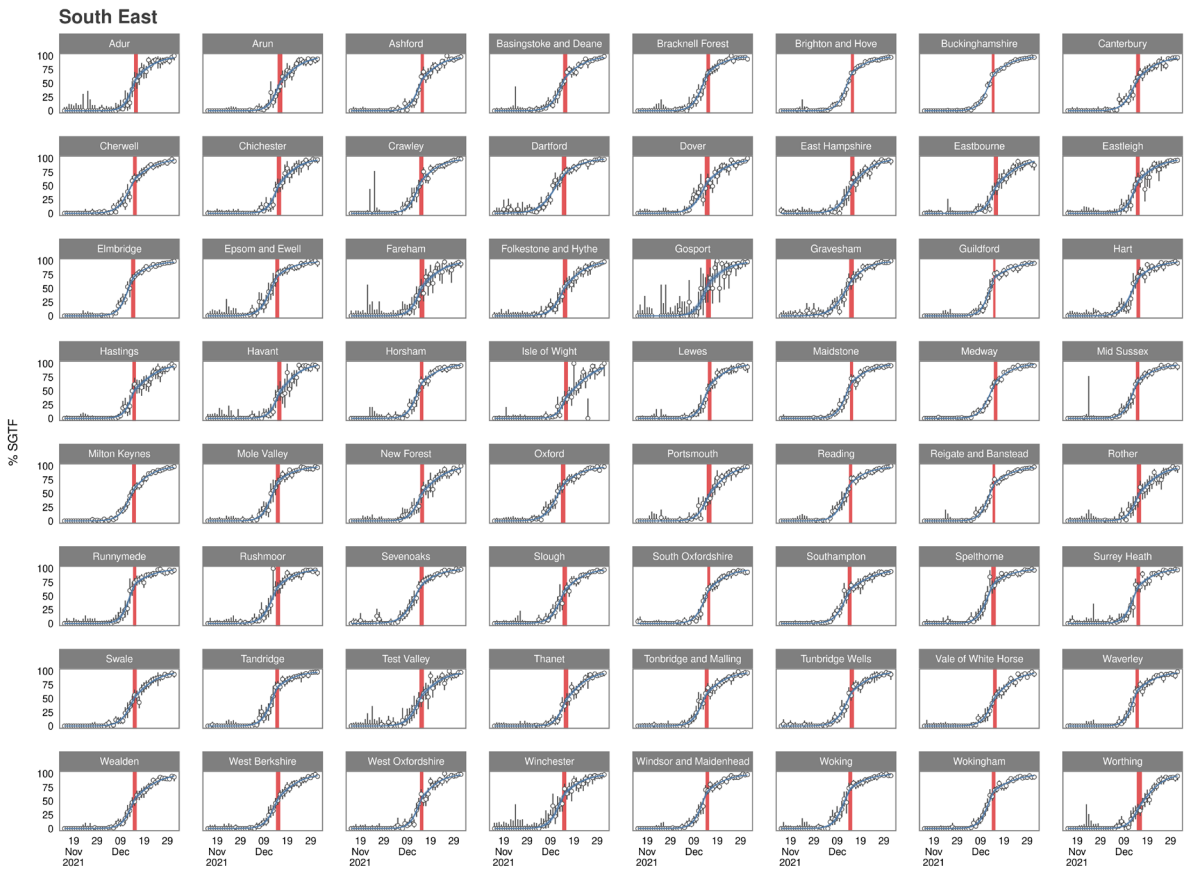


**Figure S6: Model fit for LTLAs in the North East.**

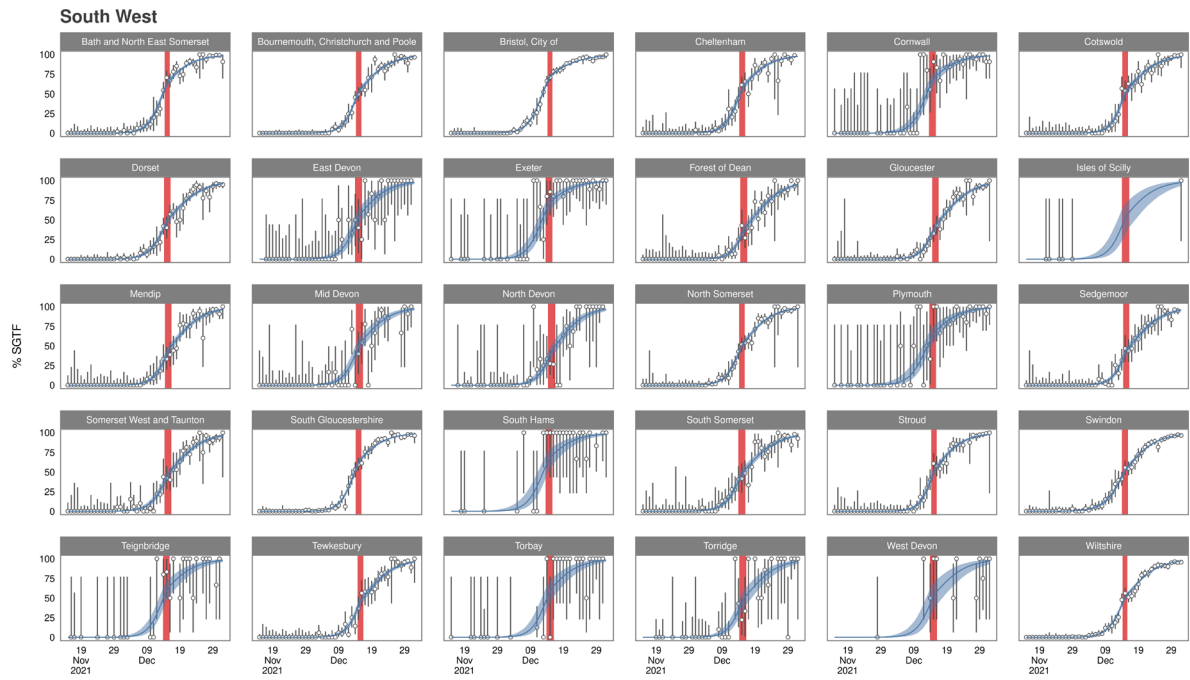




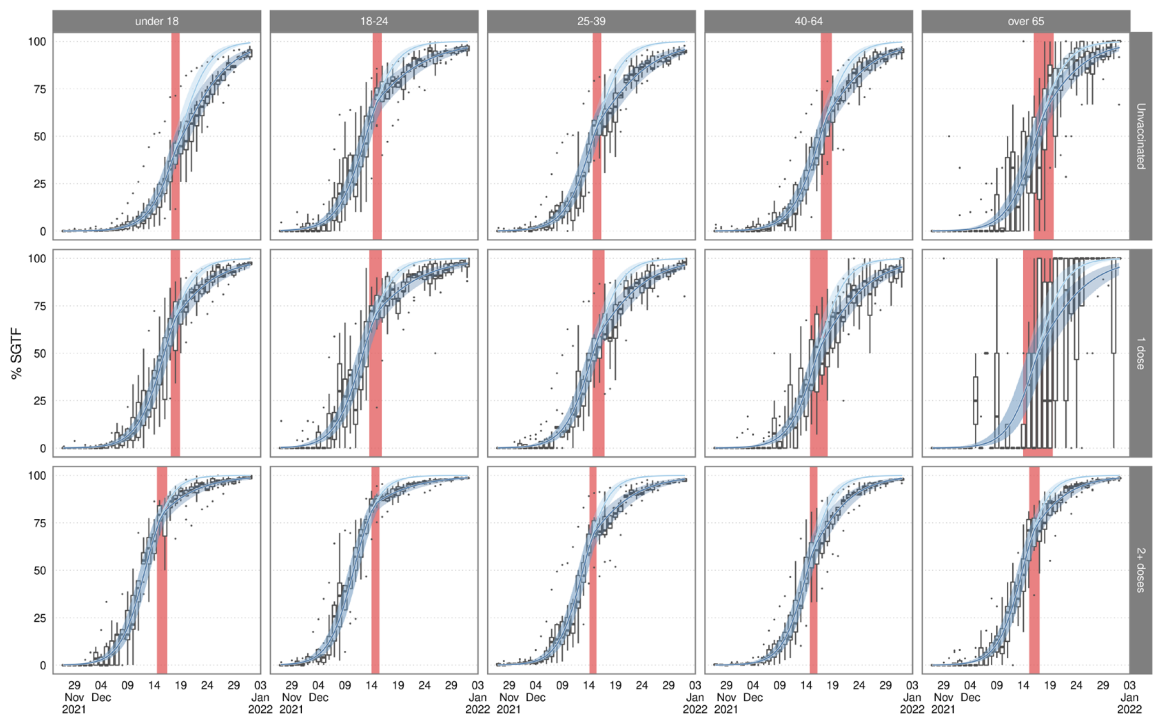
**Figure S7: Model fit for LTLAs in Yorkshire and the Humber.**



**Figure S8: Model fit for LTAs in South East.**



**Figure S9: Model fit for LTLAs in South West.**



**Figure S10: Model fit for the vaccine-stratified model, by age group.** Boxplots show the regional proportions within each vaccine/age group.

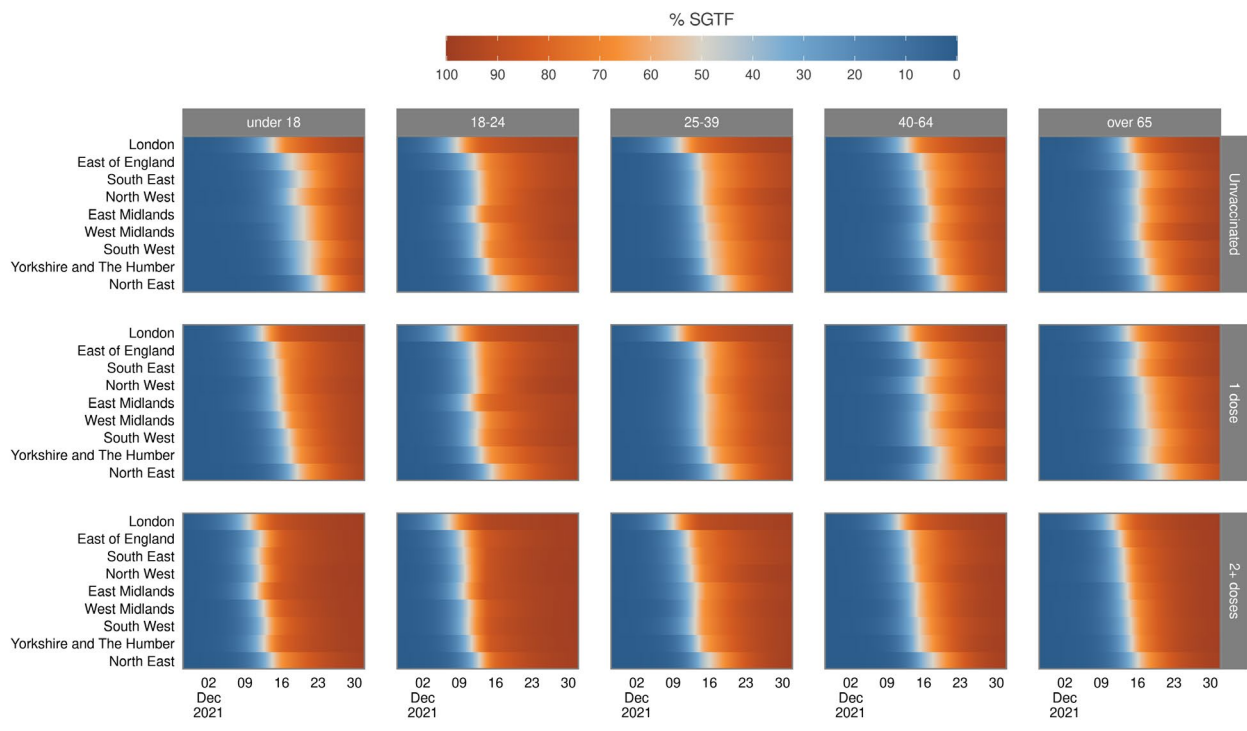


Figure S11: Surfaces showing the % of SGTF tests in each region.

## Supplementary Table

<i>PARAMETER</i>	<i>PRIOR</i>	<i>LIMITS</i>
$\sigma_{\alpha^R}, \sigma_{\beta_{T<\tau}^R}, \sigma_{\beta_{T\geq\tau}^R}, \sigma_{\alpha^L}, \sigma_{\beta_{T<\tau}^L}, \sigma_{\beta_{T\geq\tau}^L}$	normal(0.1, 0.5)	0, $\infty$
$\sigma_{\tau^R}, \sigma_{\tau^L}$	normal(1.0, 1.0)	0, $\infty$
$\alpha$	normal(0, 0.5)	$-\infty, \infty$
$\beta_{T<\tau}$	normal(0.45, 0.5)	$-\infty, \infty$
$\beta_{T\geq\tau}$	normal(0.2, 0.5)	$-\infty, \infty$
$\tau$	normal(30, 5)	0, $\infty$

**Table S1.** Priors used for both models.