

SUPPLEMENTAL MATERIALS

Table S1. Average difference between actual and predicted outcomes for three percentiles of the distribution of states by number of years of outcome data after first SSOC ^a policy was in effect

	Time span after first policy		
	Short-term	Mid-term	Long-term
	25 th percentile	50 th percentile	75 th percentile
Outcome 1: Proportion of certified PSCs ^b	4	7	9
Number of years (states) in the percentile	(n=22)	(n=12)	(n=7)
Mean difference between observed and actual outcome in percentage points [90% CI]	2.7 [0.4, 3.8] *	5.1 [2.7, 6.2] *	8 [5.2, 9.3] *
Model fit to history (probability of a residual more than 2.5% away from zero)	0.000 *	0.000 *	0.016 *
Outcome 2: Brain imaging within 45 minutes of emergency department arrival	3 years	4 years	5 years
Number of years (states) in the percentile	(n=14)	(n=11)	(n=6)
Mean difference between observed and actual outcome in percentage points [90% CI]	3.1 [-0.5, 6.2]	3.3 [-0.4, 6.3]	4.7 [0.4, 8.4]*
Model fit to history (probability of a residual more than 2.5% away from zero)	0.181	0.461	0.363
Outcome 3: In-hospital costs for stroke patients	3 years	7 years	9 years
	(n=22)	(n=12)	(n=7)

	Time span after first policy		
	Short-term 25 th percentile	Mid-term 50 th percentile	Long-term 75 th percentile
Number of years (states) in the percentile			
Mean difference between observed and actual outcome in dollars [90% CI]	-609.90 [-1,470.40, -109.60]	-1,251.70 [-1,251.70, -273.80]	-1,723.5 [1,723.5, -573.00]
Model fit to history (probability of a residual more than 2.5% away from zero)	0.055	0.226	0.401
Outcome 4: In-hospital stroke mortality rate Number of years (states) in the percentile	4 years (n=19)	6 years (n=16)	11 years (n=7)
Mean difference between observed and actual outcome in deaths per 100 in-patients [90% CI]	0.2 [0, 0.4]	0.1 [-.2, 0.3]	-0.5 [-.8, -0.2]
Model fit to history (probability of a residual more than 2.5% away from zero)	0.099	0.142	0.205
Outcome 5: Age-adjusted stroke mortality Number of years (states) in the percentile	5 years (n=32)	8 years (n=21)	11 years (n=10)

	Time span after first policy		
	Short-term 25 th percentile	Mid-term 50 th percentile	Long-term 75 th percentile
Mean difference between observed and actual outcome in deaths per 100,000 in-patients [90% CI]	-1 [-2.2, 0.1]	-1.4 [-2.8, 0.2]	-1.6 [-3.3, 0]
Model fit to history (probability of a residual more than 2.5% away from zero)	0.000	0.000	0.009

^a: Stroke System of Care; ^b: Primary Stroke Centers; *There is 90% probability that the effect is positive

Figure S1. Average estimated effect of SSOC (Stroke System of Care) policies on in-hospital stroke mortality for three percentiles of states. A, 25th percentile includes 19 states with 4 years of observed outcomes after policies were in effect. B, 50th percentile includes 16 states with 6 years of observed outcomes after policies were in effect. C, 75th percentile includes 7 states with 11 years of observed outcomes after policies were in effect. Year “0” on the x-axis is the year the first SSOC policy was in effect per state. Blue shaded area represents the 90% CI around the estimated effect. $\text{Pr}(|\text{res}| > 2.5\%)$ indicates the posterior probability of observing a discrepancy that is larger than $\pm 2.5\%$ between the predicted and observed values. These notations apply to all remaining figures.

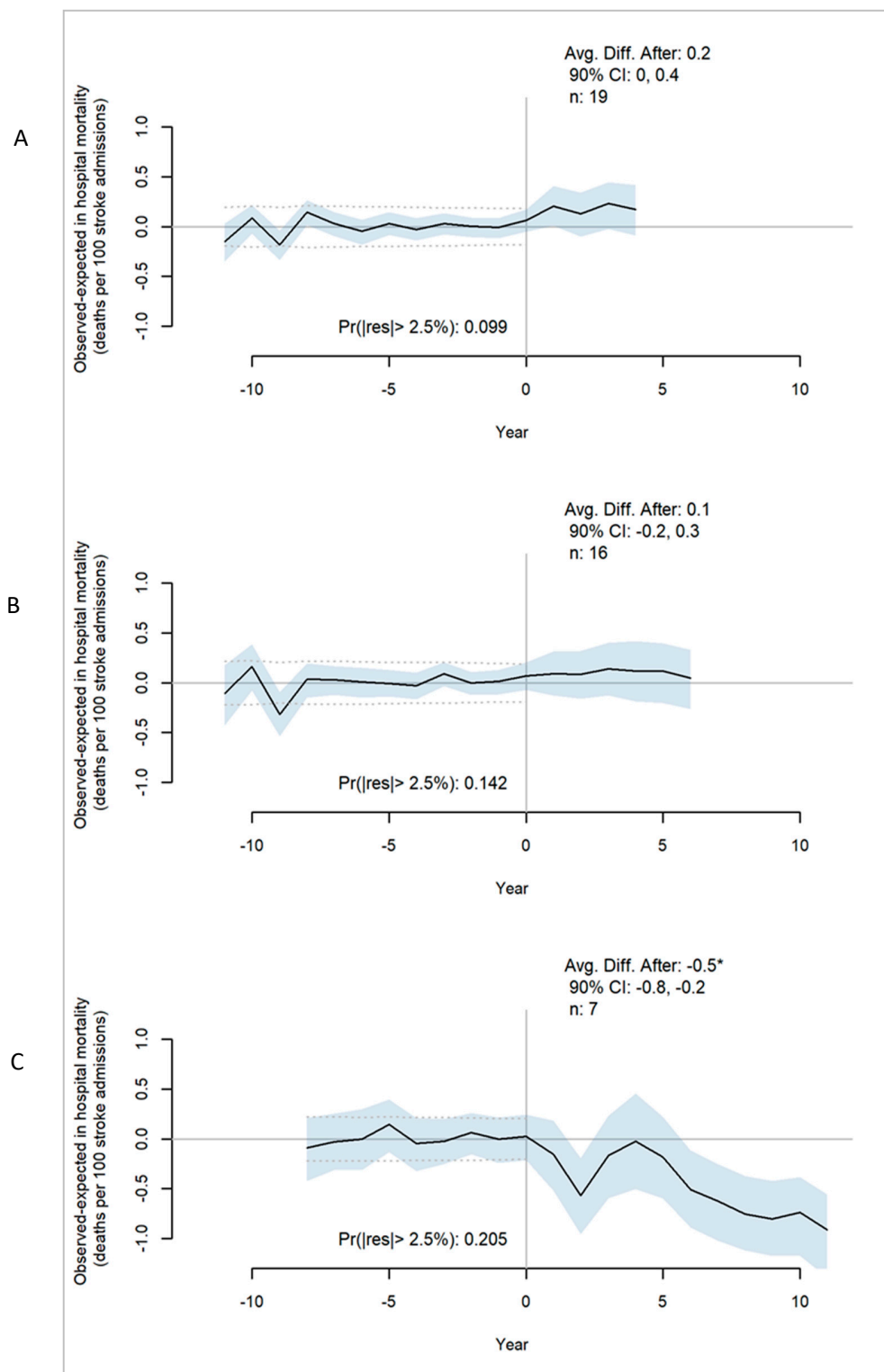


Figure S2. Average estimated effect of SSOC (Stroke System of Care) policies on absolute difference in stroke mortality between white and non-white populations for three percentiles of states. A, 25th percentile includes 30 states with 5 years of observed outcomes after policies were in effect. B, 50th percentile includes 20 states with 8 years of observed outcomes after policies were in effect. C, 75th percentile includes 10 states with 12 years of observed outcomes after policies were in effect.

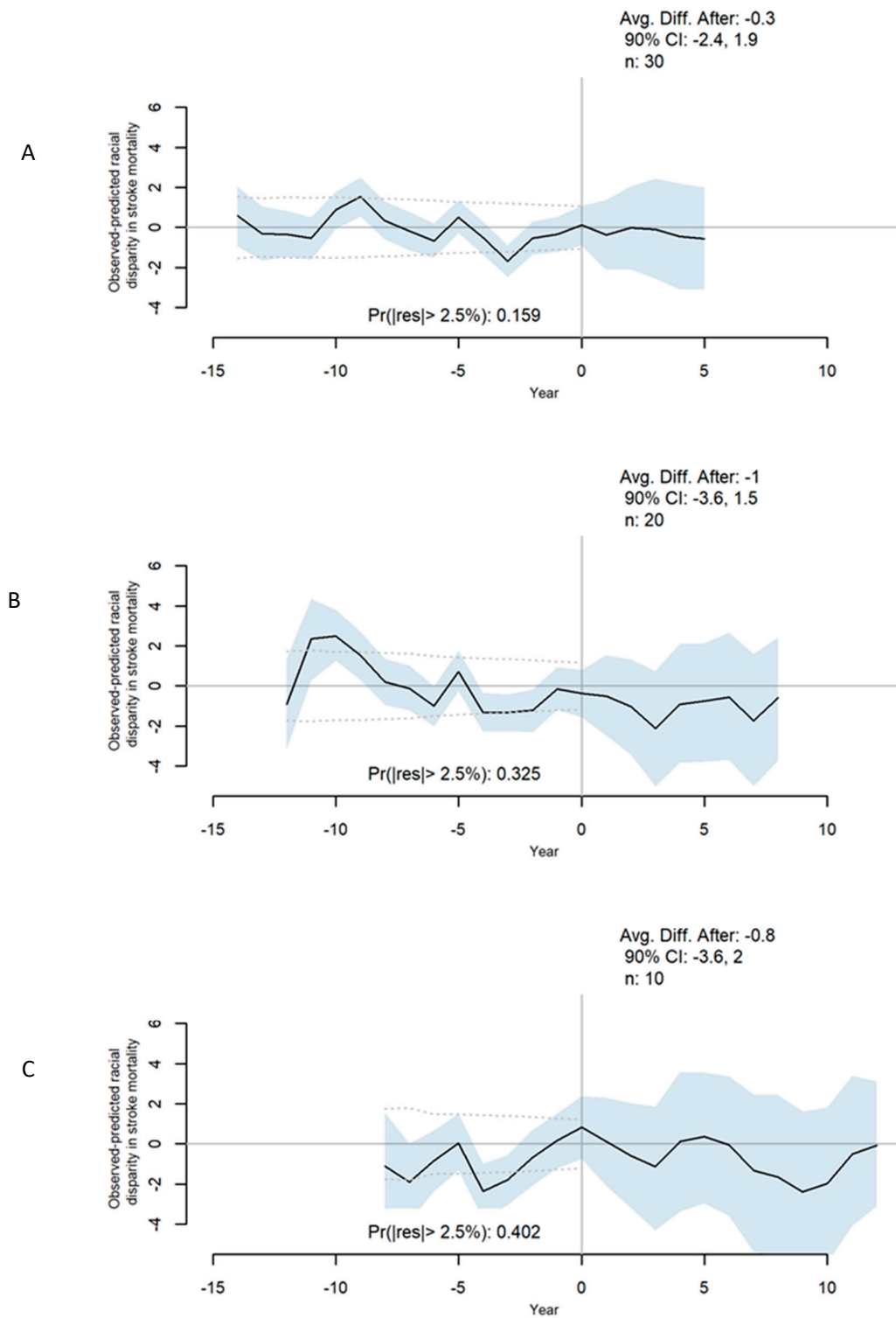


Figure S3. Average estimated effect of SSOC (Stroke System of Care) policies on absolute difference in stroke mortality between rural and non-rural populations for three percentiles of states. A, 25th percentile includes 29 states with 5 years of observed outcomes after policies were in effect. B, 50th percentile includes 18 states with 8 years of observed outcomes after policies were in effect. C, 75th percentile includes 13 states with 10 years of observed outcomes after policies were in effect.

