

Supplemental Table 1. Multiple imputation of demographics for incident *S. aureus* skin and soft tissue (n=7,800) and invasive (n=2,038) infections

	All Case Analysis		Multiple Imputation 1		Multiple Imputation 2		Multiple Imputation 3		Multiple Imputation 4		Multiple Imputation 5	
	SSTI	Invasive	SSTI	Invasive	SSTI	Invasive	SSTI	Invasive	SSTI	Invasive	SSTI	Invasive
Race												
American Indian/Alaska Native	21	4										
Asian	158	32										
Black	3,446	1,012	3,864	1,045	3,838	1,057	3,825	1,049	3,882	1,054	3,862	1,054
Native Hawaiian/Pacific-Islander	13	8										
White	3,162	845	3,715	943	3,744	936	3,759	943	3,702	937	3,727	937
Unknown	1,000	137										
Other	-	-	221	50	218	45	216	46	216	47	211	47
Ethnicity												
Hispanic	488	124	577	130	573	128	562	130	567	127	565	129
Non-Hispanic	5,966	1,846	7,223	1,908	7,227	1,910	7,238	1,908	7,233	1,911	7,235	1,909
Unknown	1,346	68										
Sex												
Male	4,257	821	4,259	821	4,258	821	4,258	821	4,259	821	4,259	821
Female	3,541	1,217	3,541	1,217	3,542	1,217	3,542	1,217	3,541	1,217	3,541	1,217
Unknown	2	0										
Age Category												
0-2	344	78	344	78	344	78	344	78	344	78	344	78
>2-5	216	11	216	11	216	11	216	11	216	11	216	11
>5-13	468	34	468	34	468	34	468	34	468	34	468	34
>13-18	403	15	403	15	403	15	403	15	403	15	403	15
19-25	425	52	425	52	425	52	425	52	425	52	425	52
>25-45	1,941	362	1,942	362	1,942	362	1,942	362	1,942	362	1,941	362
>45-65	2,493	833	2,493	833	2,493	833	2,494	833	2,494	833	2,494	833
>65	1,508	653	1,509	653	1,509	653	1,508	653	1,508	653	1,509	653
Unknown	2	0										

Supplemental Table 2. Demographics of pediatric and adult *S. aureus* incidents by methicillin sensitivity based on multiple imputation

	Pediatric				Adult				
	All (n=1,569)	MRSA (n=557)	MSSA (n=1,012)	P value	All (n=8,269)	MRSA (n=3,637)	MSSA (n=4,632)	P value	All P value
Individual Level, No. (%)									
County				0.05				<0.001	<0.001
Clayton	147 (9.4)	62 (11.1)	85 (8.4)		664 (8.0)	326 (9.0)	338 (7.3)		
Cobb	408 (26.0)	135 (24.2)	273 (27.0)		1,864 (22.5)	810 (22.3)	1,054 (22.8)		
DeKalb	332 (21.2)	113 (20.3)	219 (21.6)		1,440 (17.4)	603 (16.6)	837 (18.1)		
Douglas	63 (4.0)	31 (5.6)	32 (3.2)		520 (6.3)	267 (7.3)	253 (5.5)		
Fulton	266 (17.0)	101 (18.1)	165 (16.3)		1,752 (21.2)	794 (21.8)	958 (20.7)		
Gwinnett	291 (18.5)	91 (16.3)	200 (19.8)		1,510 (18.3)	642 (17.7)	868 (18.7)		
Newton	37 (2.4)	12 (2.2)	25 (2.5)		278 (3.4)	94 (2.6)	184 (4.0)		
Rockdale	25 (1.6)	12 (2.2)	13 (1.3)		241 (2.9)	101 (2.8)	140 (3.0)		
Race				<0.001				<0.001	<0.001
White	595 (37.9)	176 (31.6)	419 (41.4)		4,107 (49.7)	1,733 (47.6)	2,374 (51.3)		
Black	891 (56.8)	360 (64.6)	531 (52.5)		3,983 (48.2)	1,844 (50.7)	2,139 (46.2)		
Other	83 (5.3)	21 (3.8)	62 (6.1)		179 (2.2)	60 (1.6)	119 (2.6)		
Ethnicity				<0.001				0.003	<0.001
Non-Hispanic	1,319 (84.1)	495 (88.9)	824 (81.4)		7,827 (94.7)	3,473 (95.5)	4,354 (94.0)		
Hispanic	250 (15.9)	62 (11.1)	188 (18.6)		442 (5.3)	164 (4.5)	278 (6.0)		
Gender				0.18				0.24	0.002
Female	753 (48.0)	280 (50.3)	473 (46.6)		3,610 (43.7)	1,614 (44.4)	1,996 (43.1)		
Male	816 (52.0)	277 (49.7)	539 (53.3)		4,659 (56.3)	2,023 (55.6)	2,636 (56.9)		
Census Tract Level, Mean (SD)									
Income Inequality Index	0.41 (0.05)	0.41 (0.06)	0.41 (0.05)	0.68	0.41 (0.05)	0.42 (0.05)	0.41 (0.05)	0.32	0.35
Crowding, No. (%)				0.01				<0.001	0.19
Yes	1,319 (84.1)	486 (87.3)	833 (82.3)		6,840 (82.7)	3,076 (84.6)	3,764 (81.3)		
Racial Ethnic Concentration, No. (%)				<0.001				0.64	0.86
> 47.8%	793 (50.5)	322 (57.8)	471 (46.5)		4,200 (50.8)	1,858 (51.1)	2,342 (50.6)		
Proportion No High School Diploma	0.13 (0.10)	0.14 (0.09)	0.13 (0.10)	0.23	0.12 (0.09)	0.13 (0.09)	0.12 (0.09)	0.06	<0.001
Poverty Concentration, No. (%)				0.12				0.35	0.46
> 40%	60 (3.8)	27 (4.9)	33 (3.3)		285 (3.5)	133 (3.7)	152 (3.3)		
Proportion No Health Insurance	0.18 (0.10)	0.18 (0.10)	0.18 (0.10)	0.10	0.16 (0.09)	0.17 (0.09)	0.16 (0.09)	0.09	<0.001
Proportion Under 18 years-old	0.26 (0.05)	0.26 (0.05)	0.26 (0.05)	0.24	0.25 (0.06)	0.25 (0.06)	0.25 (0.06)	0.85	<0.001
Proportion Foreign-Born	0.17 (0.12)	0.15 (0.12)	0.17 (0.13)	0.02	0.15 (0.11)	0.15 (0.11)	0.15 (0.11)	0.82	<0.001

Supplemental Table 3. Multilevel model for SSTI MRSA compared to MSSA by pediatric and adult incidents

Variable	Pediatric		Adult	
	Adjusted OR (95% CI)	P value	Adjusted OR (95% CI)	P value
Age ^a				
Level 1	Referent		Referent	
Level 2	1.00 (0.69, 1.45)	0.99	1.24 (0.97, 1.60)	0.08
Level 3	0.53 (0.39, 0.73)	<0.001	0.96 (0.75, 1.23)	0.75
Level 4	0.63 (0.45, 0.87)	0.005	1.33 (1.03, 1.73)	0.03
Gender				
Female	Referent		Referent	
Male	0.93 (0.73, 1.17)	0.53	1.03 (0.92, 1.16)	0.61
Race				
White	Referent		Referent	
Black	1.09 (0.77, 1.54)	0.62	1.09 (0.95, 1.24)	0.22
Other	0.61 (0.30, 1.23)	0.16	0.63 (0.40, 0.98)	0.04
Ethnicity				
Non-Hispanic	Referent		Referent	
Hispanic	0.63 (0.43, 0.94)	0.02	0.75 (0.56, 0.99)	0.05
Crowding				
No	Referent		Referent	
Yes	1.44 (1.02, 2.04)	0.04	1.35 (1.14, 1.59)	<0.001
Racial Ethnic Concentration				
≤ 47.8%	Referent			
> 47.8%	1.19 (0.90, 1.58)	0.22		
Proportion No HS Diploma			2.98 (1.35, 6.56)	0.007
Proportion Foreign-Born	0.55 (0.18, 1.63)	0.28	0.63 (0.34, 1.18)	0.15

^a Pediatric: Level 1 = 0-2 years, Level 2 = >2-5 years, Level 3 = >5-13 years, Level 4 = >13-18 years (inclusive); Adult: Level 1 = 19-25 years (inclusive), Level 2 = >25-45 years, Level 3 = >45-65 years, Level 4 = 65+ years (non-inclusive)