Supplementary

Table S1 Multivariate analysis of patient and facility factors associated with reconstruction—all patients

Variables	All patients	
	OR (95% CI)	P value
Year of diagnosis		
2009–2012 *vs.* <2009	1.89 (1.86–1.91)	<0.0001
>2012 *vs.* <2009	2.87 (2.83–2.91)	<0.0001
Age, years		
55–64 *vs.* 40–54	0.51 (0.50–0.52)	<0.0001
65–80 *vs.* 40–54	0.23 (0.23–0.23)	<0.0001
Race		
Black *vs.* White	0.72 (0.70–0.73)	<0.0001
Hispanic *vs.* White	0.94 (0.92–0.97)	<0.0001
Asian/Pacific Islander *vs.* White	0.52 (0.51–0.53)	<0.0001
Other/Unknown *vs.* White	0.82 (0.78–0.85)	<0.0001
Insurance		
Medicare *vs.* private	0.56 (0.55–0.57)	<0.0001
Medicaid *vs.* private	0.43 (0.42–0.44)	<0.0001
Other government *vs.* private	0.88 (0.83–0.92)	<0.0001
Unknown *vs.* private	0.51 (0.48–0.53)	<0.0001
Uninsured *vs.* private	0.30 (0.29–0.31)	<0.0001
Income		
$38,000–$62,999 *vs.* <$38,000	1.29 (1.27–1.32)	<0.0001
≥$63,000 *vs.* <$38,000	2.02 (1.98–2.06)	<0.0001
Unknown *vs.* <$38,000	1.64 (1.60–1.67)	<0.0001
Facility area		
Urban *vs.* metro	0.79 (0.78–0.81)	<0.0001
Rural *vs.* metro	0.71 (0.68–0.75)	<0.0001
Unknown *vs.* metro	1.08 (1.04–1.11)	<0.0001
Annual Facility Volume		
Low [0–100] *vs.* high [>250]	0.42 (0.41–0.43)	<0.0001
Mid [101–250] *vs.* high [>250]	0.64 (0.64–0.65)	<0.0001
Academic/research facility type, yes *vs.* no	1.03 (1.02–1.05)	<0.0001
Facility location		
New England *vs.* Middle Atlantic	0.87 (0.84–0.89)	<0.0001
South Atlantic *vs.* Middle Atlantic	0.83 (0.82–0.85)	<0.0001
East North Central *vs.* Middle Atlantic	0.80 (0.78–0.81)	<0.0001
East South Central *vs.* Middle Atlantic	0.66 (0.64–0.68)	<0.0001
West North Central *vs.* Middle Atlantic	0.86 (0.84–0.88)	<0.0001
West South Central *vs.* Middle Atlantic	0.65 (0.64–0.67)	<0.0001
Mountain *vs.* Middle Atlantic	0.86 (0.84–0.89)	<0.0001
Pacific *vs.* Middle Atlantic	0.66 (0.65–0.68)	<0.0001
NAPBC accredited facility, yes *vs.* no	1.32 (1.30–1.34)	<0.0001

NAPBC, National Accreditation Program for Breast Centers.

Table S2 Multivariate analysis of patient and facility factors associated with reconstruction, by race

Variables	White		Black		Hispanic		Asian/Pacific Islander	
	OR (95% CI)	P value	OR (95% CI)	P value	OR (95% CI)	P value	OR (95% CI)	P value
Year of diagnosis								
2009–2012 *vs.* <2009	1.89 (1.86–1.92)	<0.0001	1.76 (1.68–1.85)	<0.0001	2.04 (1.91–2.18)	<0.0001	1.97 (1.81–2.13)	<0.0001
>2012 *vs.* <2009	2.87 (2.82–2.91)	<0.0001	2.85 (2.72–2.99)	<0.0001	3.11 (2.91–3.31)	<0.0001	2.90 (2.68–3.14)	<0.0001
Age, years								
55–64 *vs.* 40–54	0.51 (0.51–0.52)	<0.0001	0.52 (0.50–0.54)	<0.0001	0.54 (0.51–0.57)	<0.0001	0.39 (0.37–0.41)	<0.0001
65–80 *vs.* 40–54	0.23 (0.23–0.24)	<0.0001	0.23 (0.22–0.25)	<0.0001	0.22 (0.20–0.23)	<0.0001	0.15 (0.14–0.17)	<0.0001
Insurance								
Medicare *vs.* private	0.56 (0.55–0.57)	<0.0001	0.50 (0.48–0.53)	<0.0001	0.57 (0.52–0.62)	<0.0001	0.68 (0.60–0.77)	<0.0001
Medicaid *vs.* private	0.42 (0.41–0.43)	<0.0001	0.42 (0.40–0.45)	<0.0001	0.47 (0.44–0.50)	<0.0001	0.44 (0.40–0.49)	<0.0001
Other Government *vs.* private	0.84 (0.80–0.89)	<0.0001	1.13 (0.99–1.29)	0.0728	0.64 (0.51–0.81)	0.0002	1.28 (1.02–1.62)	0.0339
Unknown *vs.* private	0.52 (0.50–0.55)	<0.0001	0.51 (0.45–0.59)	<0.0001	0.48 (0.40–0.56)	<0.0001	0.48 (0.37–0.61)	<0.0001
Uninsured *vs.* private	0.33 (0.31–0.35)	<0.0001	0.27 (0.24–0.30)	<0.0001	0.29 (0.26–0.32)	<0.0001	0.26 (0.21–0.31)	<0.0001
Income								
$38,000–$62,999 *vs.* <$38,000	1.30 (1.27–1.33)	<0.0001	1.29 (1.24–1.34)	<0.0001	1.22 (1.15–1.30)	<0.0001	1.19 (1.04–1.37)	0.0111
≥$63,000 *vs.* <$38,000	2.08 (2.03–2.13)	<0.0001	1.88 (1.78–1.97)	<0.0001	1.81 (1.69–1.94)	<0.0001	1.61 (1.40–1.84)	<0.0001
Unknown *vs.* <$38,000	1.66 (1.61–1.70)	<0.0001	1.67 (1.57–1.77)	<0.0001	1.32 (1.20–1.45)	<0.0001	1.44 (1.23–1.69)	<0.0001
Facility area								
Urban *vs.* metro	0.82 (0.81–0.84)	<0.0001	0.48 (0.44–0.52)	<0.0001	0.79 (0.69–0.90)	0.0004	0.93 (0.77–1.14)	0.5034
Rural *vs.* metro	0.74 (0.70–0.78)	<0.0001	0.44 (0.35–0.55)	<0.0001	0.98 (0.58–1.65)	0.9353	4.88 (1.90–12.56)	0.0010
Unknown *vs.* metro	1.07 (1.03–1.11)	0.0002	1.07 (0.95–1.20)	0.2519	1.30 (1.07–1.57)	0.0079	1.31 (1.10–1.57)	0.0024
Annual facility volume								
Low [0–100] *vs.* high [>250]	0.42 (0.41–0.43)	<0.0001	0.45 (0.42–0.47)	<0.0001	0.40 (0.37–0.43)	<0.0001	0.48 (0.43–0.54)	<0.0001
Mid [101–250] *vs.* high [>250]	0.65 (0.64–0.66)	<0.0001	0.64 (0.62–0.67)	<0.0001	0.57 (0.54–0.60)	<0.0001	0.70 (0.66–0.75)	<0.0001
Academic/research facility type, yes *vs.* no	1.06 (1.05–1.08)	<0.0001	1.04 (1.01–1.08)	0.0225	0.83 (0.79–0.88)	<0.0001	0.90 (0.85–0.96)	0.0010
Facility location								
New England *vs.* Middle Atlantic	0.83 (0.81–0.85)	<0.0001	0.66 (0.62–0.70)	<0.0001	0.62 (0.56–0.69)	<0.0001	0.83 (0.75–0.93)	0.0009
South Atlantic *vs.* Middle Atlantic	0.72 (0.70–0.74)	<0.0001	0.46 (0.43–0.50)	<0.0001	0.58 (0.45–0.76)	<0.0001	0.70 (0.55–0.90)	0.0047
East North Central *vs.* Middle Atlantic	0.90 (0.88–0.92)	<0.0001	0.76 (0.69–0.84)	<0.0001	0.57 (0.47–0.69)	<0.0001	0.93 (0.78–1.11)	0.4179
East South Central *vs.* Middle Atlantic	0.71 (0.69–0.72)	<0.0001	0.59 (0.55–0.63)	<0.0001	0.39 (0.36–0.43)	<0.0001	0.76 (0.66–0.86)	<0.0001
West North Central *vs.* Middle Atlantic	0.93 (0.90–0.96)	<0.0001	0.88 (0.74–1.04)	0.1313	0.45 (0.40–0.50)	<0.0001	0.96 (0.82–1.14)	0.6743
West South Central *vs.* Middle Atlantic	0.71 (0.69–0.73)	<0.0001	0.68 (0.62–0.74)	<0.0001	0.44 (0.41–0.48)	<0.0001	0.73 (0.67–0.79)	<0.0001
Mountain *vs.* Middle Atlantic	1.34 (1.32–1.36)	<0.0001	1.29 (1.24–1.34)	<0.0001	1.26 (1.19–1.34)	<0.0001	1.20 (1.13–1.28)	<0.0001
Pacific *vs.* Middle Atlantic	1.89 (1.86–1.92)	<0.0001	1.76 (1.68–1.85)	<0.0001	2.04 (1.91–2.18)	<0.0001	1.97 (1.81–2.13)	<0.0001
NAPBC accredited facility, yes *vs.* no	2.87 (2.82–2.91)	<0.0001	2.85 (2.72–2.99)	<0.0001	3.11 (2.91–3.31)	<0.0001	2.90 (2.68–3.14)	<0.0001

NAPBC, National Accreditation Program for Breast Centers.

Table S3 Multivariable logistic regression analysis for undergoing reconstruction at CoC sites with and without NAPBC accreditation, 2016–2017[†]

Variables	Years 2016–2017 CoC-NAPBC		Years 2016–2017 CoC-noNAPBC	
	OR (95% CI)	P value	OR (95% CI)	P value
Facility area				
Urban *vs.* metro	0.78 (0.73–0.84)	<0.0001	0.73 (0.69–0.78)	<0.0001
Rural *vs.* metro	0.86 (0.73–1.02)	0.0840	0.67 (0.57–0.79)	<0.0001
Unknown *vs.* metro	1.20 (1.04–1.38)	0.0117	1.20 (1.07–1.35)	0.0018
Annual facility volume				
Low [0–100] *vs.* high [>250]	0.51 (0.47–0.55)	<0.0001	0.41 (0.39–0.43)	<0.0001
Mid [101–250] *vs.* high [>250]	0.69 (0.66–0.73)	<0.0001	0.60 (0.57–0.62)	<0.0001
Academic/research facility type, yes *vs.* no	0.89 (0.84–0.93)	<0.0001	1.04 (1.00–1.09)	0.0429
Facility location	0.76 (0.71–0.81)	<0.0001	0.87 (0.81–0.93)	<0.0001
New England *vs.* Middle Atlantic	0.70 (0.62–0.78)	<0.0001	0.69 (0.64–0.75)	<0.0001
South Atlantic *vs.* Middle Atlantic	0.71 (0.64–0.78)	<0.0001	0.90 (0.84–0.98)	0.0101
East North Central *vs.* Middle Atlantic	0.73 (0.66–0.80)	<0.0001	0.65 (0.60–0.70)	<0.0001
East South Central *vs.* Middle Atlantic	0.51 (0.46–0.57)	<0.0001	1.17 (1.07–1.29)	0.001
West North Central *vs.* Middle Atlantic	0.62 (0.57–0.67)	<0.0001	0.69 (0.64–0.73)	<0.0001
West South Central *vs.* Middle Atlantic	0.78 (0.73–0.84)	<0.0001	0.73 (0.69–0.78)	<0.0001
Mountain *vs.* Middle Atlantic	0.86 (0.73–1.02)	0.0840	0.67 (0.57–0.79)	<0.0001
Pacific *vs.* Middle Atlantic	1.20 (1.04–1.38)	0.0117	1.20 (1.07–1.35)	0.0018

[†], adjusting for patient age, race, insurance status, facility area, facility volume, facility type and facility location. CoC, Commission on Cancer; NAPBC, National Accreditation Program for Breast Centers.