Online Supplement

Disparities in Accessibility of Primary Stroke Centers

Supplemental Table/Figures

I. Modified Rural-Urban Continuum Codes Defined

Code	Definition
0	Central counties of metropolitan areas of 1 million population or more
1	Fringe counties of metropolitan areas of 1 million population or more
2	Counties of metropolitan areas of 250,000 to 1 million population
3	Counties in metropolitan areas of fewer than 250,000 population
4	Adjacent to a metropolitan area, urban population of 20,000 or more
5	Not adjacent to a metropolitan area, urban population of 20,000 or more
6	Adjacent to a metropolitan area, urban population of 2,500-19,999
7	Not adjacent to a metropolitan area, urban population of 2,500-19,9000
8	Adjacent to a metropolitan area, rural or less than 2,500 urban population
9	Not-adjacent to a metropolitan area, rural or less than 2,500 urban population

II. Demographic Variables, including source, geographic unit, and year.

	Source	Geographic Unit	Year	Median	Interquartile Range
					All Block Groups in the USA
Income					
Per Capita Income	Neilson/Claritas	Block Group	2010	$23,139	$17,551 - $31,060
Per Capita Income	American Community Survey	Block Group	2005-2009	$23,208	$17,312 - $31,369
Median Household Income	American Community Survey	Block Group	2005-2009	$48,125	$34,632 - $66,904
Median Family Income	American Community Survey	Block Group	2005-2009	$57,404	$41,552 - $79,010
Poverty					
% Population Under 18 Living in Poverty	American Community Survey	Census Tract	2005-2009	15.2%	5.9% - 29.1%
% Population 18 to 64 Living in Poverty	American Community Survey	Census Tract	2005-2009	10.7%	5.8% - 18.2%
% Population 65 and Over Living in Poverty	American Community Survey	Census Tract	2005-2009	8.2%	3.8% - 14.8%
% Total Population Living in Poverty	American Community Survey	Census Tract	2005-2009	11.5%	6.1% - 19.6%
% of Households Receiving Public Assistance Income	American Community Survey	Block Group	2005-2009	0.5%	0.0% - 3.6%
% of Families with Income Below the Poverty Level	American Community Survey	Block Group	2005-2009	6.6%	0.0% - 16.5%
Insurance Status					
% Under 19 without Health Insurance	Area Resource File	County	2010	7.1%	5.4 - 11.0%
% Under 65 without Health Insurance	Area Resource File	County	2010	16.3%	12.7% - 20.2%
CMS Eligibles					
% Eligible for Medicare	Area Resource File	County	2008	14.9%	12.3% - 17.5%
% Eligible for Medicaid	Area Resource File	County	2008	19.0%	14.2% - 24.6%
Education - Dropouts					
% Population 25 or Over with Less than High School Degree	American Community Survey	Block Group	2005-2009	13.00%	6.2% - 23.4%
% Population 25 or Over with Some College Education	American Community Survey	Block Group	2005-2009	27.20%	20.3% - 34.0%
Education - Degrees					
% Population 25 or Over, High School Graduate	American Community Survey	Block Group	2005-2009	30.8%	21.2% - 39.9%
% Population 25 or Over, Bachelors Degree	American Community Survey	Block Group	2005-2009	13.5%	7.1% - 22.8%
% Population 25 or Over, Master's Degree	American Community Survey	Block Group	2005-2009	4.5%	1.6% - 9.4%
% Population 25 or Over, Professional Degree	American Community Survey	Block Group	2005-2009	0.3%	0.0% - 2.3%
% Population 25 or Over, Doctoral Degree	American Community Survey	Block Group	2005-2009	0.0%	0.0% - 1.3%
Employment					
% in Labor Force who are Employed	Neilson/Claritas	Block Group	2010	94.60%	90.8% - 97.1%
Race				2.7%	0.6% - 12.9%
% Black	Neilson/Claritas	Block Group	2010	16.0%	5.6% - 43.6%
% Non-White	Neilson/Claritas	Block Group	2010		
Ethnicity & Origin					
% Hispanic	Neilson/Claritas	Block Group	2010	4.4%	1.6% - 15.4%
% Foreign-Born	Neilson/Claritas	Block Group	2010	5.9%	2.0% - 15.4%
Healthcare Utilization					
Total Hospital Admissions per 1,000 Population	Area Resource File	County	2010	118.9	83.0 - 166.2
Total Hospital Beds per 1,000 Population	Area Resource File	County	2010	2.9	2.0 - 4.1
Total Hospital Inpatient Days Per 1,000 Population	Area Resource File	County	2010	739.2	439.2 - 1054.0
Total Hospital ED Visits per 1,000 Population	Area Resource File	County	2010	398.3	278.7 - 524.3
Healthcare Resources - Doctors					
Non-Federal MDs in Neurology Devoted to Total Patient Care per 100,000 Population	Area Resource File	County	2010	3.9	1.6 - 6.2
Non-Federal MDs in Emergency Medicine Devoted to Total Patient Care per 100,000 Population	Area Resource File	County	2010	9.7	5.0 - 13.9
					1.1-2.6
					0.0 - 0.0
Per Capita STG Hospitals With ED	Area Resource File	County	2008	0.8	0.6-1.5

III. Major City Multivariable Model Results

	Coefficient	95% CI		P-Value
Income	1.315	(1.096 -	1.579)	0.003
Poverty	0.709	(0.595 -	0.845)	<0.001
Uninsured	957.525	(391.664 -	2340.918)	<0.001
Medicare and/or Medicaid Eligible	0.042	(0.027 -	0.065)	<0.001
Education: Degrees	2.291	(1.706 -	3.077)	<0.001
Education: Dropouts	0.836	(0.769 -	0.908)	<0.001
Black and non-White	2.569	(2.059 -	3.205)	<0.001
Hispanic and Foreign Born	4.855	(3.360 -	7.016)	<0.001
Healthcare Utilization	19.156	(12.643 -	29.022)	<0.001
Resources: Hospitals	0.000	(0.000 -	0.000)	<0.001
Resources: Physicians	4.282	(3.770 -	4.865)	<0.001
Percent Employed	1.015	(1.006 -	1.024)	0.001
Stroke Belt Location	0.001	(0.000 -	0.003)	<0.001
Rural-Urban Continuum Code	0.001	(0.000 -	0.002)	<0.001

IV. Minor City Multivariable Model Results

	Coefficient	95% CI		P-Value
Income	0.983	(0.807 -	1.199)	0.867
Poverty	1.141	(0.998 -	1.303)	0.053
Uninsured	0.811	(0.672 -	0.978)	0.028
Medicare and/or Medicaid Eligible	0.405	(0.356 -	0.459)	<0.001
Education: Degrees	2.095	(1.706 -	2.573)	<0.001
Education: Dropouts	0.813	(0.743 -	0.888)	<0.001
Black and non-White	2.086	(1.630 -	2.670)	<0.001
Hispanic and Foreign Born	1.788	(1.286 -	2.485)	0.001
Healthcare Utilization	2.552	(2.234 -	2.915)	<0.001
Resources: Hospitals	0.474	(0.376 -	0.596)	<0.001
Resources: Physicians	4.106	(3.305 -	5.101)	<0.001
Percent Employed	1.014	(1.000 -	1.027)	0.048
Stroke Belt Location	0.567	(0.420 -	0.766)	<0.001
Rural-Urban Continuum Code	0.119	(0.089 -	0.160)	<0.001

V. Suburbs Multivariable Model Results

	Coefficient	95% CI	P-Value
Income	0.553	(0.413 - 0.740)	<0.001
Poverty	0.839	(0.699 - 1.007)	0.059
Uninsured	0.637	(0.514 - 0.789)	<0.001
Medicare and/or Medicaid Eligible	0.655	(0.594 - 0.724)	<0.001
Education: Degrees	2.352	(1.715 - 3.227)	<0.001
Education: Dropouts	0.752	(0.663 - 0.853)	<0.001
Black and non-White	1.770	(1.411 - 2.219)	<0.001
Hispanic and Foreign Born	1.425	(0.926 - 2.194)	0.108
Healthcare Utilization	2.246	(2.015 - 2.503)	<0.001
Resources: Hospitals	0.326	(0.272 - 0.390)	<0.001
Resources: Physicians	1.604	(1.456 - 1.766)	<0.001
Percent Employed	1.021	(1.001 - 1.040)	0.04
Stroke Belt Location	2.678	(2.170 - 3.307)	<0.001
Rural-Urban Continuum Code	0.740	(0.688 - 0.796)	<0.001