

Key findings

- *Data on social determinants of health (socio-economic, demographic, and health care indicators) describe challenges to population health and local health care system performance improvement.*
- *Comparing these data on social determinants of health to findings in earlier briefs on health system performance in the same 13 low-income study areas reveals that communities with more social challenges to health also have higher rates of avoidable hospitalizations and emergency department (ED) visits.*
- *Among the 13 study areas, Camden, Atlantic City, and Newark face the most social challenges to health overall, while Jersey City, Asbury Park, and New Brunswick face fewer social challenges compared to the others.*

This data brief highlights key findings from a project that examined specific patterns of social indicators of health for 13 New Jersey low-income communities.¹ It is intended to supplement an earlier report by Chakravarty et al. (2013) which examined patterns of hospital utilization among residents of the same 13 communities in an effort to identify opportunities to improve care and reduce costs for health care services. The 13 study areas are selected from communities with at least 5,000 Medicaid beneficiaries. Social determinants of health include demographic, social, economic, and environmental factors that have been shown to contribute to individual and population health; e.g., those who are employed, have higher incomes, live in safe neighborhoods, and have access to health care tend to be healthier and have better health outcomes than those who are unemployed or low-income, live in unsafe neighborhoods, and are uninsured resulting in poor access to health care (HealthyPeople.gov 2013). These are often

¹ The 13 communities consist of one or more municipalities. For brevity, this brief refers to each area by its main municipality. See Appendix Table 7 for a complete listing of included areas. Chakravarty et al. (2013) provide more information about the selection of the study areas.

Table 1 | **Social Challenges Facing 13 New Jersey Low-Income Areas**
(Ranks: 13 = most challenges, 1 = least challenges)

Areas	Overall Rank*	Socio-economic Challenges**	Demographic Challenges**	Health Care Challenges**
Camden	13	13	10	11.5
Atlantic City	12	11.5	12	8.5
Newark	11	11.5	4	13
Paterson	10	9.5	13	6
Perth Amboy	9	8	8.5	11.5
Elizabeth	8	7	11	10
Plainfield	7	4	6	8.5
Trenton	6	9.5	2	7
Union	5	6	8.5	5
Vineland	4	3	7	3
Jersey City	3	5	3	4
Asbury Park	2	2	5	1
New Brunswick	1	1	1	2

Rankings: Regions are arranged in order of most (darkest blue) to least (lightest blue) overall challenge rank based on the average of individual indicator rankings. See appendix for social indicator definitions and data sources; *mean rank of three dimension mean ranks; ** mean rank of indicators in each dimension. Ranks with decimals (e.g., 8.5) indicate ties.

Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

considered challenges for improving health services delivery as many are immutable. The social indicators chosen for this brief are grouped into three dimensions: (1) Socio-economic Challenges; (2) Demographic Challenges; and (3) Health Care Challenges (see Box 1 for indicators within each dimension). Within each dimension, each indicator is ranked to illustrate how the different New Jersey low-income communities compare to each other. Average ranks across metrics are used to derive rankings for each of the three dimensions and the average of the dimension ranks are used to calculate an overall ranking. In the charts that follow, the ranks are arranged in order of most (dark blue) to least (light blue) challenged. All findings are based on analysis of the most recently-available New Jersey data for each metric. Additionally, these overall findings are compared to the overall findings for health system performance for the same 13 study areas (Chakravarty et al. 2013). Detailed tables for all social indicator measures and data methods/sources/years are located in the Appendix.

while the New Brunswick, Asbury Park, and Jersey City areas show the lowest levels of challenges. Some areas, including Paterson, Perth Amboy, and Elizabeth, rank in the middle overall but are highly challenged in demographic or health care indicators.

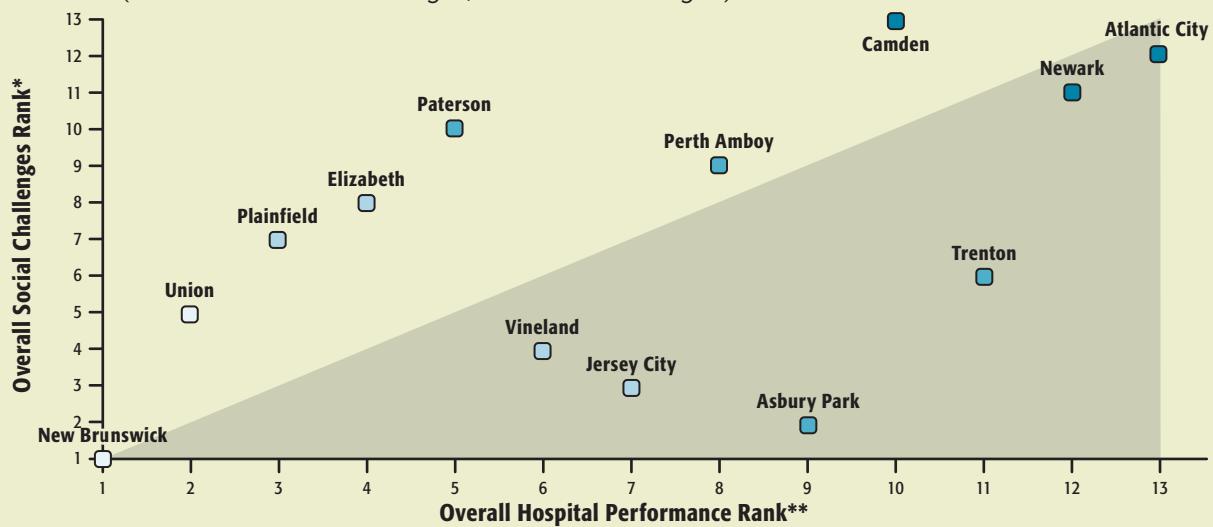
Figure 1 compares the overall rankings for the social indicators (vertical axis) to the overall rankings for health system performance (horizontal axis) from the prior data brief by Chakravarty et al. (2013).² Across the 13 communities, social indicator ranks are positively related to ranks of health system performance (Spearman rank correlation = 0.53, $p < .05$, one-tailed). That is, those communities with more social challenges to health also tend to have higher rates of avoidable hospitalizations and avoidable ED visits.

While the analysis in this brief cannot be used to determine whether or how high rates of social challenges may have contributed to worse health system performance, it is reasonable to expect that communities facing more social challenges may have a more difficult time achieving high system performance. It is therefore noteworthy that some communities with high rates of social challenges “outperform” other communities facing fewer challenges. In Figure 1, those communities above the diagonal line

Table 1 lists the ranks for each of the three social dimensions of challenges and the overall rank (based on the mean of the three dimension ranks). The 13 study areas are sorted according to their overall rank, with the areas facing the most challenges having the highest ranks. The Camden, Atlantic City, and Newark areas rank the highest among social indicators (most challenged),

² Health system performance is characterized by Chakravarty et al. (2013) using the following measures: (1) avoidable, ambulatory care sensitive inpatient hospitalizations, (2) avoidable/preventable treat-and-release emergency department [ED] visits, (3) hospital inpatient high-users, (4) ED high users, and (5) 30-day all-cause hospital readmissions.

Figure 1 | **Social Challenges vs. Hospital Performance across 13 New Jersey Low-Income Areas**
(Ranks: 13 = most challenges, 1 = least challenges)



Rankings: Regions are ranked based on the average of individual indicator rankings. Most challenges = 13, least challenges = 1. See appendix for social indicator definitions and data sources; see Chakravarty et al. (2013) for hospital performance measures. *Mean rank of three dimension mean ranks; ** mean rank of hospital performance indicators.

Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

rank better on health system performance than on social challenges, and, can be viewed as doing better than expected given the challenges they face. For example, the Paterson area ranks 10th in social challenges but achieved a rank of 5th in system performance. Conversely, some communities, shown below the diagonal line may be seen as ranking worse on system performance relative to social challenges. The Asbury Park area, for instance, ranks second lowest on social challenges but near the top of indicators of poor system performance (ranking 9th).

Ranked Correlations of Indicators with Overall Rank

Correlations close to one (in absolute value) indicate a very strong relationship to the overall rank, while those close to zero indicate a weak relationship. For positive correlations, the indicator is in the same direction as the overall rank whereas for negative correlations, the indicator is in the reverse direction.

Box 1 | Ranked Correlations of Indicators with Overall Rank: *Drivers of Social Challenges Overall Ranking*

Social Indicators	Social Indicator Dimension	Correlation with Overall Rank	Absolute Value of Correlation
Median Household Income	SES	(-0.91)	0.91
% Unemployed (Age 16+)	SES	0.85	0.85
Child Dependency Ratio (Children/Working Age Adults)	DEMO	0.83	0.83
% Female-Only Householders with Children < Age 18	DEMO	0.82	0.82
% Late or No Prenatal Care	HC	0.81	0.81
% Below Poverty	SES	0.78	0.78
% Deaths < Age 65 (including homicides)	HC	0.74	0.74
% Vacant Housing Units	SES	0.62	0.62
% NJ ASK Grade 3 Partially Proficient (Literacy)	SES	0.50	0.50
% Uninsured	HC	0.48	0.48
Aged Dependency Ratio (Older Adults/Working Age Adults)	DEMO	(-0.42)	0.42
Total Dependency Ratio (Children + Older Adults/Working Age Adults)	DEMO	0.34	0.34
% Spanish Spoken at Home Students	DEMO	0.12	0.12
% Non-English Spoken at Home Students	DEMO	(-0.08)	0.08

Values are color-coded in order of high (dark blue) to moderate (medium blue) to low (light blue) correlation with Overall Social Challenges Rank.
Key for Dimensions: SES = Socio-economic Indicator; DEMO = Demographic Indicator; HC = Health Care Indicator

Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

How to Read the Following Figures

Color-coding is used to indicate the most (dark blue) to least challenged (light blue) within each indicator. Actual values are indicated along the bottom of each figure on the horizontal axis. Study areas are represented in the text and all charts by main municipality name. The vertical line in the figures indicates NJ state average level (if available). On all figures, the study areas are listed in order of their Overall Ranking (i.e., those facing the most to least challenges).

Table 2 shows the overall and individual indicator rankings for the socio-economic challenges across the 13 study areas. Figures 2–4 show the actual values and respective rankings of the individual socio-economic indicators across the 13 study areas. The purely economic indicators (Income, Unemployment, Poverty, Vacant Housing) show the same pattern as the overall rank, while 3rd grade

literacy is moderately related. Across these measures, some communities – including the Camden, Atlantic City, and Newark areas – show consistently high levels of difficulties. Other communities, including the Paterson, Perth Amboy, Plainfield, and Trenton areas, rank very high on socio-economic challenges by at least some of the measures.

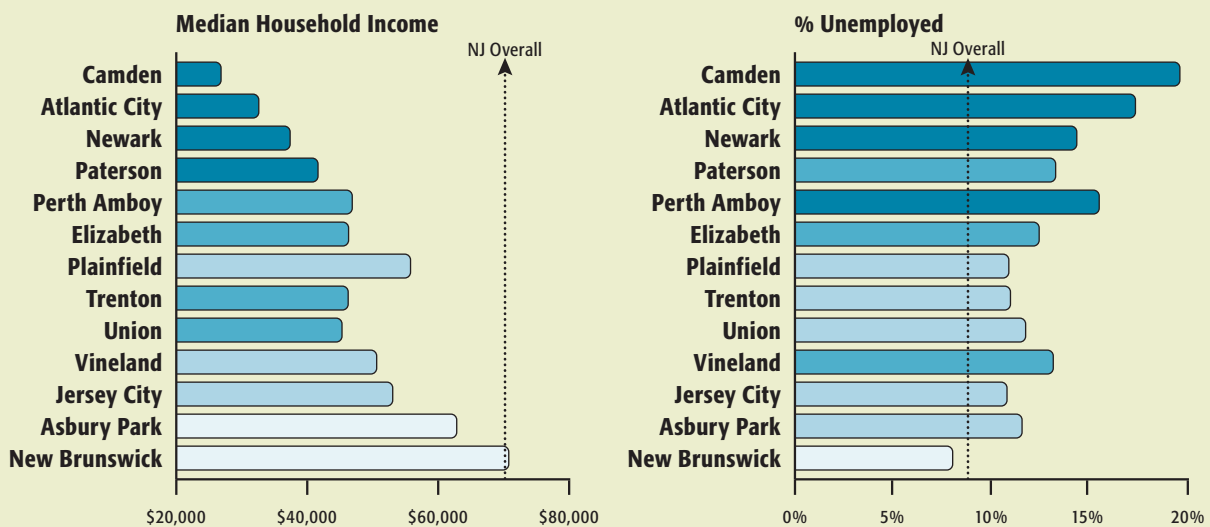
Table 2 | **Socio-economic (SES) Challenges: Overall, Individual Indicator Ranks for All Study Areas**

Areas	Overall SES Rank	Median HH Income	% Unemployed	% Below Poverty	% Vacant Housing Units	% 3rd Grade Partially Proficient
Camden	1	1	1	1	1	1
Atlantic City	2	2	2	2	2	2
Newark	3	3	3	3	3	3
Paterson	4	4	4	4	4	4
Perth Amboy	5	5	5	5	5	5
Elizabeth	6	6	6	6	6	6
Plainfield	7	7	7	7	7	7
Trenton	8	8	8	8	8	8
Union	9	9	9	9	9	9
Vineland	10	10	10	10	10	10
Jersey City	11	11	11	11	11	11
Asbury Park	12	12	12	12	12	12
New Brunswick	13	13	13	13	13	13

Values color-coded in order of indicator rank from most (dark blue) to least (light blue) challenges. Areas sorted by Overall Rank.

Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

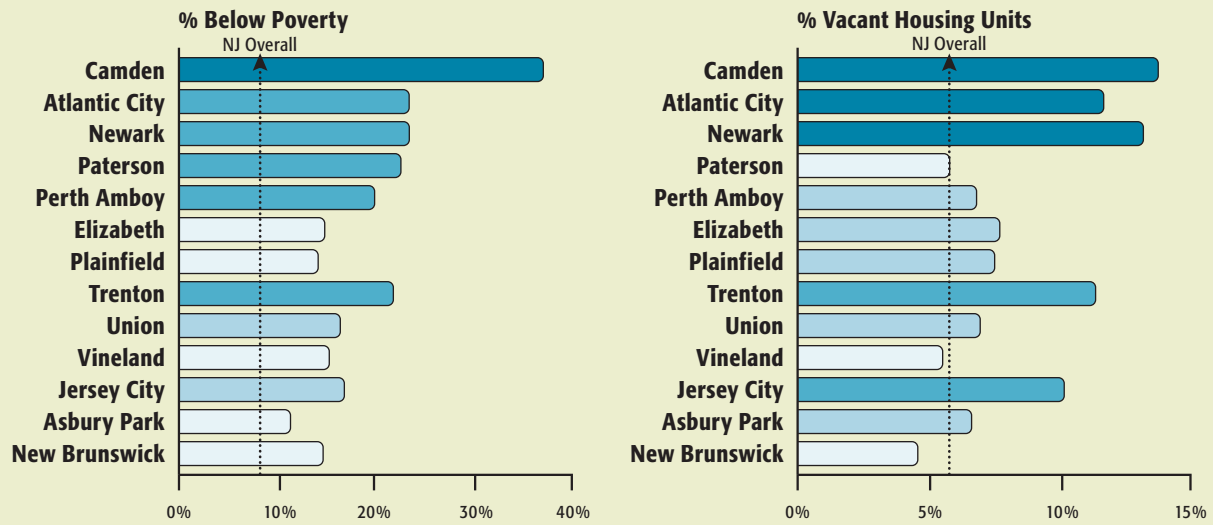
Figure 2 | **Socio-economic Challenges: Income, Unemployment**



Values color-coded in order of indicator rank from most (dark blue) to least (light blue) challenges. Areas sorted by Overall Rank.

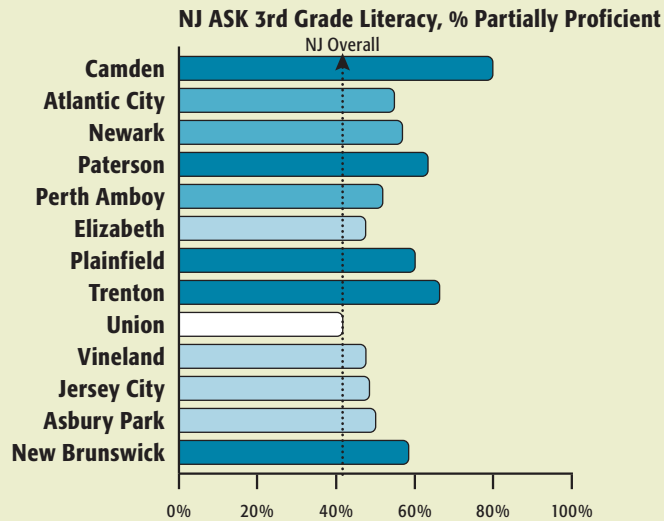
Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

Figure 3 | **Socio-economic Challenges: Poverty, Vacant Housing**



Values color-coded in order of indicator rank from most (dark blue) to least (light blue) challenges. Areas sorted by Overall Rank.
 Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

Figure 4 | **Socio-economic Challenges: Child Literacy**



Values color-coded in order of indicator rank from most (dark blue) to least (light blue) challenges. Areas sorted by Overall Rank.

Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

Table 3 shows the overall and individual indicator rankings for the demographic challenges across the 13 study areas. Figures 5–6 show the actual values and respective rankings across the 13 study areas for each demographic indicator. Percent Non-English Spoken at Home did not

significantly contribute to the overall rank, while Percent Female Householders with Children < Age 18 and the Child Dependency Ratio were strongly related. The Aged Dependency and Total Dependency Ratios were moderately related to overall rank.

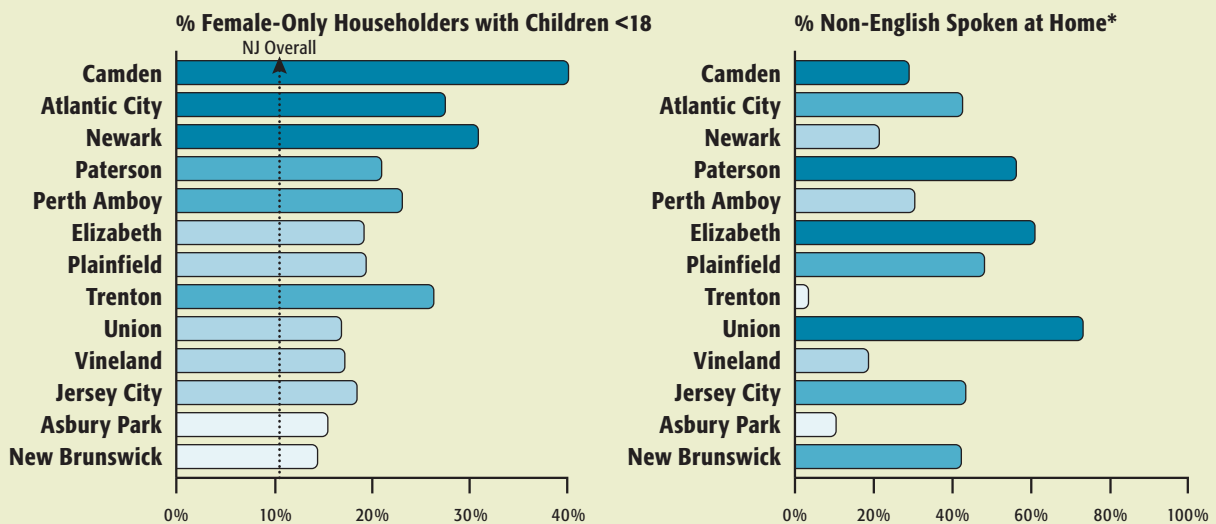
Table 3 | **Demographic (DEMO) Challenges:** Overall, Individual Indicator Ranks for All Study Areas

Areas	Overall DEMO Rank	% Female-Only HHs w/Kids<18	% Non-English at Home	Child Dependency Ratio	Aged Dependency Ratio
Camden	1	1	1	1	1
Atlantic City	2	2	2	2	2
Newark	3	3	3	3	3
Paterson	4	4	4	4	4
Perth Amboy	5	5	5	5	5
Elizabeth	6	6	6	6	6
Plainfield	7	7	7	7	7
Trenton	8	8	8	8	8
Union	9	9	9	9	9
Vineland	10	10	10	10	10
Jersey City	11	11	11	11	11
Asbury Park	12	12	12	12	12
New Brunswick	13	13	13	13	13

Values color-coded in order of indicator rank from most (dark blue) to least (light blue) challenges. Areas sorted by Overall Rank.

Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

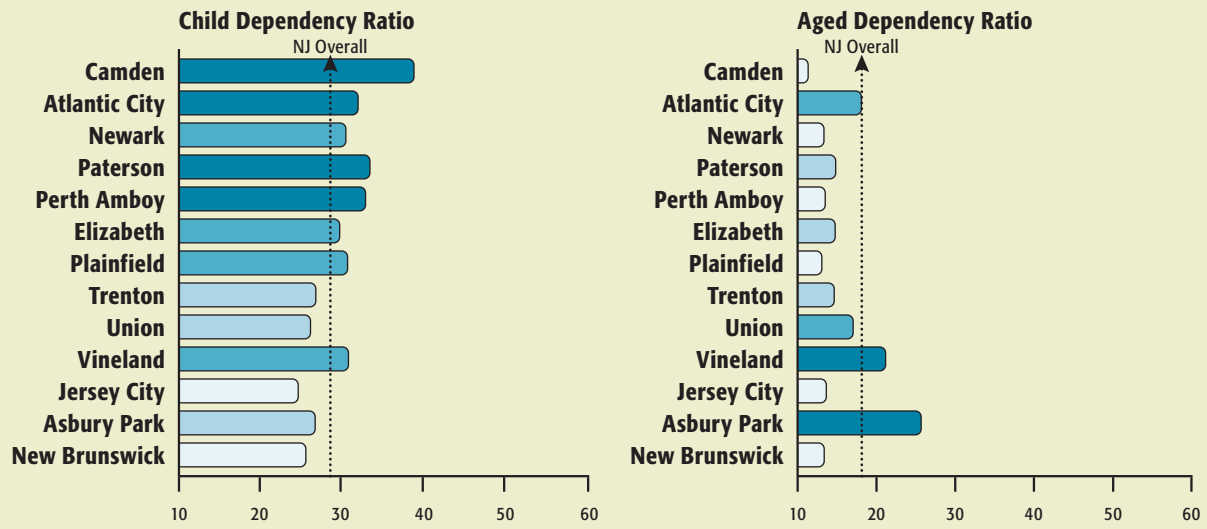
Figure 5 | **Demographic Challenges:** Female Householders with Children < 18, Non-English at Home



Values color-coded in order of indicator rank from most (dark blue) to least (light blue) challenges. Areas sorted by Overall Rank.

Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

Figure 6 | **Demographic Challenges: Child Dependency, Aged Dependency**



Values color-coded in order of indicator rank from most (dark blue) to least (light blue) challenges. Areas sorted by Overall Rank.

Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

Table 4 shows the overall and individual indicator rankings for the health care challenges across the 13 study areas. Figures 7-8 show the actual values and individual rankings across the 13 study areas for each health care indicator.

Late or No Prenatal Care and Early Deaths (including homicides) were strong indicators of overall rank, while Percent Uninsured was moderately related.

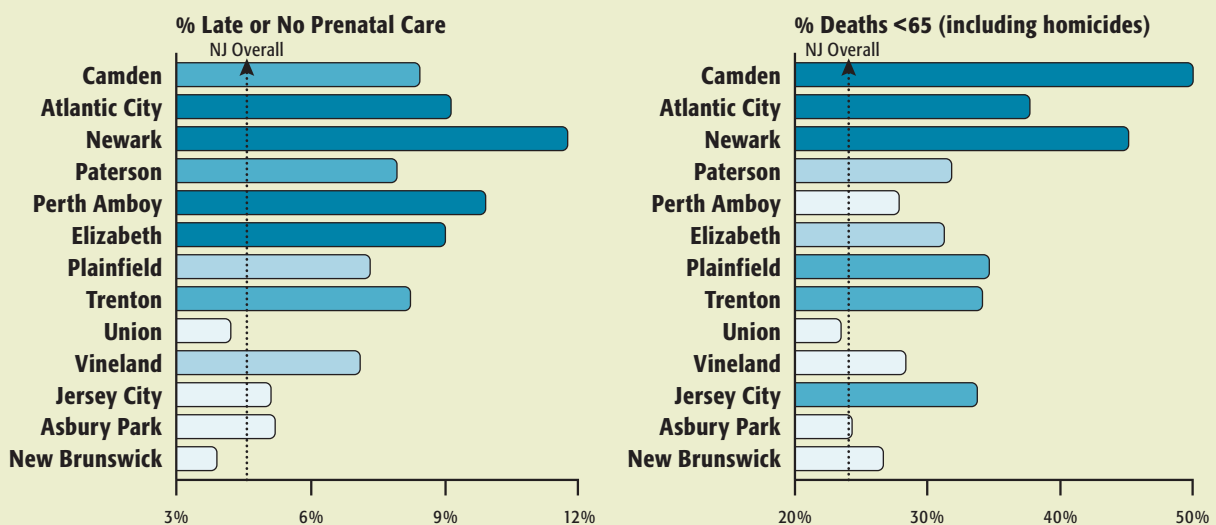
Table 4 | **Health Care (HC) Challenges:** Overall, Individual Indicator Ranks for All Study Areas

Areas	Overall HEALTH CARE Rank	% Late/No Prenatal Care	% Deaths < 65 (incl. homicides)	% Uninsured
Camden	1	1	1	1
Atlantic City	2	2	2	2
Newark	3	3	3	3
Paterson	4	4	4	4
Perth Amboy	5	5	5	5
Elizabeth	6	6	6	6
Plainfield	7	7	7	7
Trenton	8	8	8	8
Union	9	9	9	9
Vineland	10	10	10	10
Jersey City	11	11	11	11
Asbury Park	12	12	12	12
New Brunswick	13	13	13	13

Values color-coded in order of indicator rank from most (darkest blue) to least (lightest blue) challenges. Areas sorted by Overall Rank.

Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

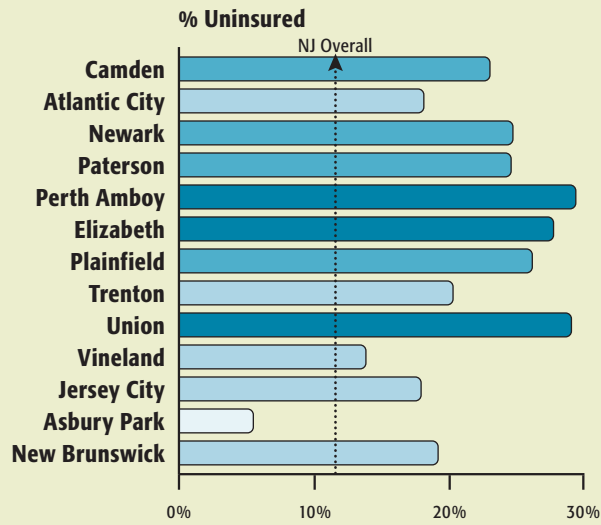
Figure 7 | **Health Care Challenges:** Late/No Prenatal Care, Early Deaths



Values color-coded in order of indicator rank from most (darkest blue) to least (lightest blue) challenges. Areas sorted by Overall Rank.

Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

Figure 8 | **Health Care Challenges: *Uninsured***



Values color-coded in order of indicator rank from most (dark blue) to least (light blue) challenges. Areas sorted by Overall Rank.

Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

Individual Area Findings

- Camden performed poorly for nearly all measures, with somewhat better performance for some health care challenges and fewer demographic challenges.
- The Atlantic City area fared poorly for many socio-economic and demographic challenges, but performed somewhat better for health care challenges.
- Although the Newark area performed poorly for socio-economic and health care challenges, it performed better for demographic challenges.
- The Paterson area, although performing poorly for demographic challenges in particular, fared better for health care challenges.
- Perth Amboy performed particularly poorly for health care challenges.
- The Elizabeth and Union areas faced high demographic challenges in particular.
- The Trenton area fared well for demographic challenges, but poorly for socio-economic ones.
- The Jersey City, Asbury Park, and New Brunswick* areas performed well in comparison to other study areas across nearly all measures. (**The inclusion of Franklin Township, much of which is middle-to-high income, improves this area's social indicator standing.*)

Conclusions & Looking Ahead

Data on social determinants of health (socio-economic, demographic, and health care indicators) can be used to describe expected challenges to achieving high health system performance. In comparing this data to earlier briefs on hospital use across the same 13 communities, those areas facing more social challenges to health also have higher rates of avoidable hospitalizations and avoidable ED visits. While there is an association between community rankings in social challenges and lower health systems performance, the data in this brief make it clear that the social determinants we measured do not fully explain why some communities do better than others. This finding underscores that achieving better performance may well be attainable in low-performing communities, even in light of poverty, challenging demographics, and other social factors.

Communities that appear above the diagonal line in Figure 1 achieved a better rank in health system performance than they did when ranked by social challenges. Within the limitations of the data, it appears that these communities are “beating the odds.” That is, they are doing better than the social challenges data might suggest. There may be many reasons for this “positive deviance.” There are certainly some factors mediating our measured social challenges that may lessen avoidable hospital utilization. For example, new immigrant communities may bring utilization patterns and health practices that lead to lower hospital use. But it is also important to consider how the health care delivery systems in these communities may have found ways to deliver care more effectively and efficiently than other communities facing similar social challenges. Considering which factors may lead to the comparatively better performance in these communities will be useful for identifying best practices for achieving high health system performance. Future briefs by the Center for State Health Policy will further explore the factors that differentiate higher and lower performing communities.

Appendix Data Table 1 | Socio-economic Indicators

Urban Area	% Below Poverty	Median Household Income	% Unemployed	NJ ASK 3rd Grade Literacy, % Partially Proficient	% Housing Units Vacant
Camden	36.1%	\$27,027	19.6%	79.9%	13.6%
Atlantic City	22.8%	\$32,907	17.4%	55.0%	11.5%
Newark	22.9%	\$37,765	14.4%	56.9%	13.0%
Paterson	22.0%	\$42,264	13.3%	63.3%	5.8%
Perth Amboy	19.4%	\$47,696	15.5%	51.9%	6.7%
Elizabeth	14.4%	\$47,143	12.4%	47.5%	7.7%
Plainfield	13.8%	\$56,939	10.9%	60.1%	7.5%
Trenton	21.1%	\$47,064	11.0%	66.1%	11.3%
Union	16.0%	\$46,154	11.7%	42.1%	6.9%
Vineland	14.9%	\$51,603	13.2%	47.5%	5.5%
Jersey City	16.4%	\$54,133	10.8%	48.7%	10.1%
Asbury Park	11.1%	\$64,185	11.6%	50.3%	6.6%
New Brunswick	14.3%	\$72,285	8.0%	58.4%	4.6%
Correlation with Overall Rank	0.78	0.91	0.85	0.50	0.62

Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

Appendix Data Table 2 | Demographic Indicators

Urban Area	% Female-Only Householders with Children < 18	% Non-English Spoken at Home	% Spanish Spoken at Home	Aged Dependency Ratio	Child Dependency Ratio	Total Dependency Ratio
Camden	40.6%	28.9%	27.9%	11.34	38.87	50.21
Atlantic City	27.4%	42.5%	31.3%	18.11	31.95	50.06
Newark	30.7%	21.3%	14.2%	13.34	30.52	43.86
Paterson	20.9%	56.1%	48.0%	14.89	33.40	48.29
Perth Amboy	23.0%	30.3%	29.7%	13.55	32.81	46.36
Elizabeth	19.2%	60.9%	48.8%	14.86	29.73	44.58
Plainfield	19.4%	48.0%	44.1%	13.15	30.70	43.85
Trenton	26.3%	3.2%	1.6%	14.66	26.78	41.45
Union	16.8%	73.3%	69.4%	17.02	26.23	43.25
Vineland	17.2%	18.4%	16.2%	21.16	30.84	52.00
Jersey City	18.4%	43.4%	23.6%	13.66	24.64	38.30
Asbury Park	15.4%	10.4%	5.8%	25.65	26.79	52.43
New Brunswick	14.4%	42.2%	36.1%	13.46	25.65	39.11
Correlation with Overall Rank	0.82	-0.08	0.12	-0.42	0.83	0.34

Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

Appendix Data Table 3 | Health Care Indicators

Urban Area	% Uninsured	% Late or No Prenatal Care	% of Deaths <65 Years (including homicides)
Camden	23.0%	8.4%	50.2%
Atlantic City	18.1%	9.1%	37.6%
Newark	24.7%	11.7%	45.1%
Paterson	24.6%	7.9%	31.7%
Perth Amboy	29.4%	9.9%	27.8%
Elizabeth	27.7%	9.0%	31.2%
Plainfield	26.1%	7.3%	34.6%
Trenton	20.3%	8.2%	34.1%
Union	29.2%	4.2%	23.4%
Vineland	13.8%	7.1%	28.3%
Jersey City	17.9%	5.1%	33.7%
Asbury Park	5.4%	5.2%	24.2%
New Brunswick	19.3%	3.9%	26.6%
Correlation with Overall Rank	0.48	0.81	0.74

Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

Appendix Data Table 4 | Racial-Ethnic Distribution

Urban Area	% White	% White Non-Hispanic	% Black	% Hispanic	% Asian
Camden	17.6%	4.9%	48.1%	47.0%	2.1%
Atlantic City	26.1%	14.8%	40.6%	33.9%	11.2%
Newark	19.4%	8.5%	63.4%	26.1%	1.4%
Paterson	46.9%	23.2%	19.3%	53.5%	5.1%
Perth Amboy	50.3%	12.0%	10.5%	78.1%	1.7%
Elizabeth	56.1%	25.2%	22.3%	50.6%	2.2%
Plainfield	33.2%	15.2%	40.6%	41.5%	2.4%
Trenton	36.3%	25.7%	45.7%	26.6%	1.9%
Union	62.5%	15.7%	4.7%	76.5%	5.0%
Vineland	68.5%	53.1%	15.8%	29.2%	1.5%
Jersey City	40.1%	28.7%	22.4%	27.2%	20.4%
Asbury Park	64.4%	57.8%	25.7%	11.5%	3.7%
New Brunswick	45.1%	33.2%	21.6%	30.3%	14.2%
Correlation with Overall Rank	-0.65	-0.75	0.50	0.33	-0.38

Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

Appendix Data Table 5 | Gender and Age Distribution

Urban Area	% Female	% Children (Age 0–14)	% Working Adults (Age 15–64)	% Older Adults (Age 65+)	Total Population
Camden	51.4%	25.9%	66.6%	7.6%	74,996
Atlantic City	51.3%	21.3%	66.6%	12.1%	60,268
Newark	51.7%	21.2%	69.5%	9.3%	409,997
Paterson	51.2%	22.5%	67.4%	10.0%	294,085
Perth Amboy	50.7%	22.4%	68.3%	9.3%	49,723
Elizabeth	50.9%	20.6%	69.2%	10.3%	161,873
Plainfield	49.7%	21.3%	69.5%	9.1%	70,140
Trenton	49.7%	18.9%	70.7%	10.4%	109,742
Union	50.6%	18.3%	69.8%	11.9%	183,338
Vineland	52.1%	20.3%	65.8%	13.9%	94,699
Jersey City	50.9%	17.8%	72.3%	9.9%	302,435
Asbury Park	53.0%	17.6%	65.6%	16.8%	88,766
New Brunswick	50.5%	18.4%	71.9%	9.7%	106,619

Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

Appendix Table 6 | **Indicator Data Sources and Years**

Indicators	Data Source	Data Year(s)	Denominator for Percents*
Socio-economic Challenges			
Median Household Income % Below Poverty	American Community Survey (ACS)	2010 <i>5-yr estimates</i>	# Households Total Population
% Unemployed	NJ Dept of Labor & Workforce Development	2011	# Age 16+
% Vacant Housing Units	US Census <i>Profile of General Population and Housing Characteristics</i>	2010	# Housing Units
**% NJ ASK Grade 3 Partially Proficient (Literacy)	NJ Dept of Education <i>New Jersey School Report Card</i>	2011	# 3rd Graders
Demographic Challenges			
Child Dependency Ratio (<i>Children/Working Age Adults</i>) Aged Dependency Ratio (<i>Older Adults/Working Age Adults</i>) Total Dependency Ratio (<i>Children + Older Adults/Working Age Adults</i>)	US Census file: <i>QT-P1: Age Groups and Sex 2010</i>	2010	# Age 16-64
% Female-Only Householders with Children < Age 18	US Census <i>Profile of General Population and Housing Characteristics</i>	2010	# Households
% Spanish Spoken at Home Students % Non-English Spoken at Home Students	NJ Dept of Education <i>New Jersey School Report Card</i>	2011	# Public and Charter School Students
Health Care Challenges			
% Late or No Prenatal Care % Deaths < Age 65 (<i>including homicides</i>)	NJ Dept of Health Bureau of Vital Statistics and Registration <i>New Jersey Death and Birth Certificate Databases</i>	2004 to 2008	# Births # Deaths
% Uninsured	American Community Survey (ACS)	2010 <i>3-yr estimates</i>	Total Population
Other Demographics			
Total Population % Female % Children (< age 15) % Working Age Adults (age 15–64) % Older Adults (age 65+)	US Census file: <i>QT-P1: Age Groups and Sex 2010</i>	2010	Total Population
% White % White Non-Hispanic % Black % Hispanic % Asian	US Census <i>Profile of General Population and Housing Characteristics</i>	2010	

*Denominators derived from weighted averages of municipalities within each area.

**Those 3rd graders who score in the Partially Proficient level for literacy are considered to be below the state minimum of proficiency.

Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

Appendix Table 7 | **List of 13 Study Areas and 33 Included Municipalities**
(alphabetical by Main Municipality)

Main Municipality	Municipality
Asbury Park	Asbury Park City
	Neptune Township
	Ocean Township
	Tinton Falls Borough
Atlantic City	Atlantic City
	Pleasantville City
Camden	Camden City
Elizabeth	Elizabeth City
	Linden City
	Winfield Township
Jersey City	Bayonne City
	Jersey City
Newark	City of Orange Township
	East Orange City
	Irvington Township
	Newark City
New Brunswick	Franklin Township
	New Brunswick City
Paterson	Clifton City
	Passaic City
	Paterson City
Perth Amboy	Perth Amboy City
Plainfield	North Plainfield Borough
	Plainfield City
Trenton	Ewing Township
	Trenton City
Union	Guttenberg Town
	North Bergen Township
	Union City
	West New York Town
Vineland	Buena Vista Township
	Millville City
	Vineland City

Source: Newman et al. (2012); tabulations by Rutgers Center for State Health Policy, 2013

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