

The logo for Rutgers University, featuring the word "RUTGERS" in a large, white, serif font. Below it, the words "THE STATE UNIVERSITY OF NEW JERSEY" are written in a smaller, white, sans-serif font. The background is a solid red color with a faint, circular seal of Rutgers University visible.

THE STATE UNIVERSITY
OF NEW JERSEY

New Jersey Safety Net ACOs: New Findings on Opportunities for Better Care and Lower Costs

**PICO New Jersey Conference
Promoting Good Care: Innovation and Organizing in Health Care
Newark, NJ
September 19, 2013**

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Rutgers Center for State Health Policy**

Acknowledgements

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Our project team

- Sujoy Chakravarty, Ph.D.
- Jian Tong, M.S.

Others contributing

- Ping Shi, NJ Department of Health, Center for Health Statistics
- Derek DeLia, Daisuke Goto, Jose Nova, Oliver Lontok, Bram Poquette, and Dorothy Gaboda, CSHP

CSHP Roles

- **Advise the NJ Medicaid ACO Demonstration Program**
 - Review gainsharing plans
 - Annual evaluation
- **CMMI-PICO High-Utilization Team Model**
 - Adaptation of the Camden approach in Allentown PA, Aurora CO, San Diego CA, and Kansas City MO
- **Evaluation of RWJF super-utilizer projects**
- **Deep dive into NJ avoidable hospital cost**
 - Sources of variation across 13 low-income communities
 - Behavioral health connection to avoidable use and cost
 - Avoidable hospital use among Medicare-Medicaid dual eligibles
 - Dental use of the emergency department
 - Opportunities to enhance data

13 Candidate ACO Regions

Camden*

Greater Newark**

Trenton***

Asbury Park-Neptune

Atlantic City-Pleasantville

Elizabeth-Linden

Jersey City-Bayonne

New Brunswick-Franklin

Paterson-Passaic-Clifton

Perth Amboy-Hopelawn

Plainfield, North Plainfield

Union City-W. NY- Guttenberg-N. Bergen

Vineland-Millville

*Camden zip codes (08102, 08103, 08104 & 08105)

**Newark zip codes (07102, 07103, 07104, 07105,

07106, 07107, 07108, 07112, & 07114)

East Orange zip codes (07017, 07018)

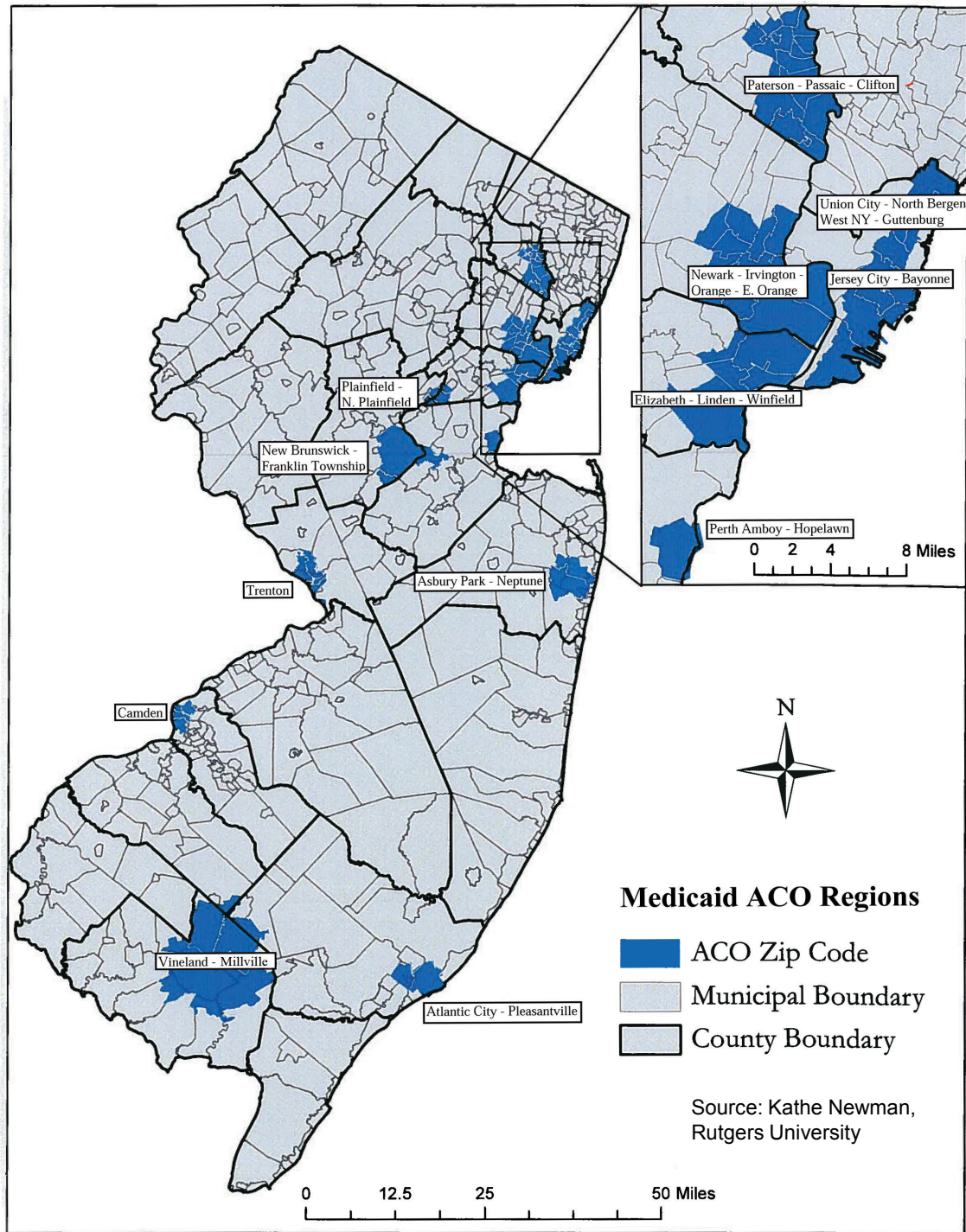
Irvington zip code (07111)

Orange zip code (07050)

***Trenton zip codes (08608, 08609, 08611, 08618,

08629 & 08638)

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Medicaid ACO Regions

- ACO Zip Code
- Municipal Boundary
- County Boundary

Source: Kathe Newman,
Rutgers University

Data and Measures

- **New Jersey All-Payer Uniform Billing Hospital Discharge Data: 2008-2010**
- **Five measures of potentially avoidable hospital use among adults living in the 13 regions**
 - Avoidable inpatient admissions
 - Avoidable treat-and-release emergency department (ED) visits
 - Inpatient high use
 - ED treat-and-release high use
 - 30-day all-cause readmissions
- **Potential cost savings estimated by comparing each community to the region among them with the *best cost performance***

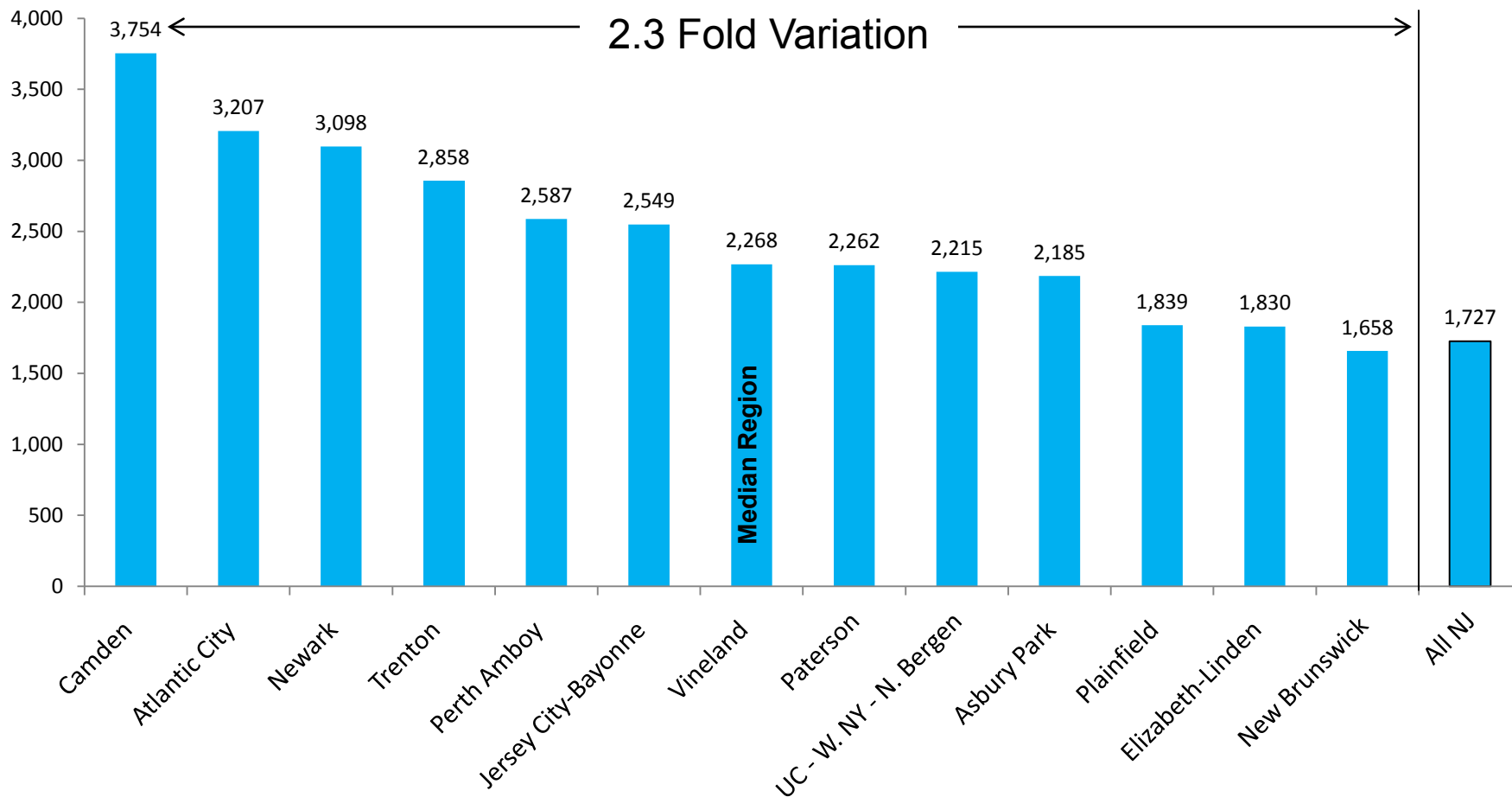
Table 1 | **Comparing Performance across 13 New Jersey Low-Income Areas (1=Best, 13=Worst)**

Areas	Overall Rank	Avoidable Hospitalizations	Avoidable ED Visits	Inpatient High Use	ED High Use	Hospital Readmissions
Atlantic City-Pleasantville City	13	12	12	12	12	8
Newark City-East Orange City-Irvington Township-City of Orange Township	12	11	10	11	10	13
Trenton City	11	10	11	10	11	12
Camden City	10	13	13	4	13	10
Asbury Park City-Neptune Township	9	4	8	13	9	9
Perth Amboy City-Hopelawn	8	9	9	8	6	7
Jersey City-Bayonne City	7	8	3	9	2	11
Vineland City-Millville City	6	7	4	6	8	2
Paterson City-Passaic City-Clifton City	5	6	5	5	4	6
Elizabeth City-Linden City-Winfield Township	4	2	7	3	5	5
Plainfield City-North Plainfield Borough	3	3	6	2	7	1
Union City-W. New York Town-Guttenberg Town-N. Bergen Township	2	5	1	7	1	4
New Brunswick City-Franklin Township	1	1	2	1	3	3

Rankings: Worst three Next three Intermediate four Best three

Regions are arranged in order of worst to best overall performance rank based on the average of individual measure rankings. See appendix for performance measure definitions and data sources.

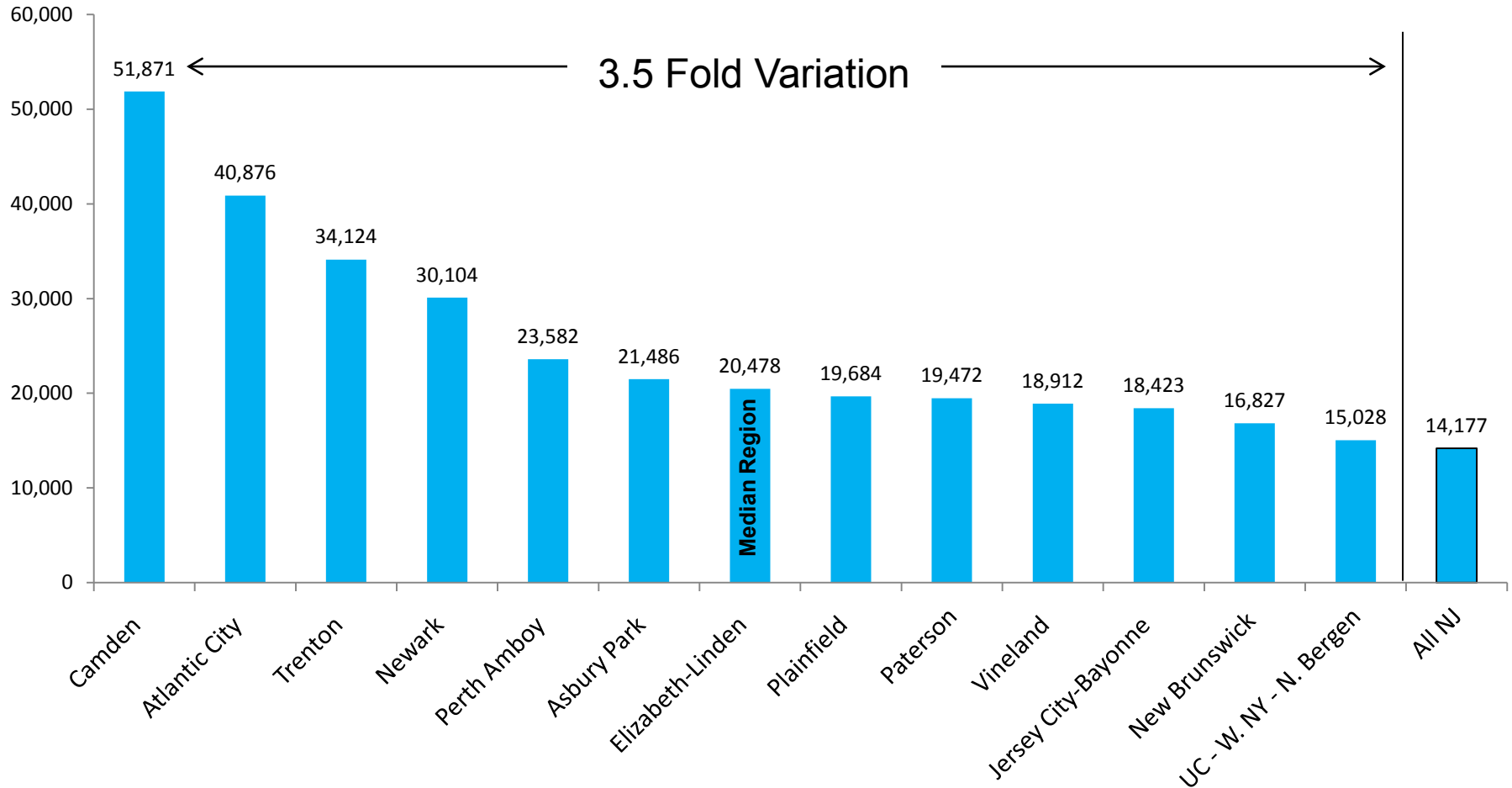
Rates of Avoidable Inpatient Hospitalizations



Rate per 100,000 population

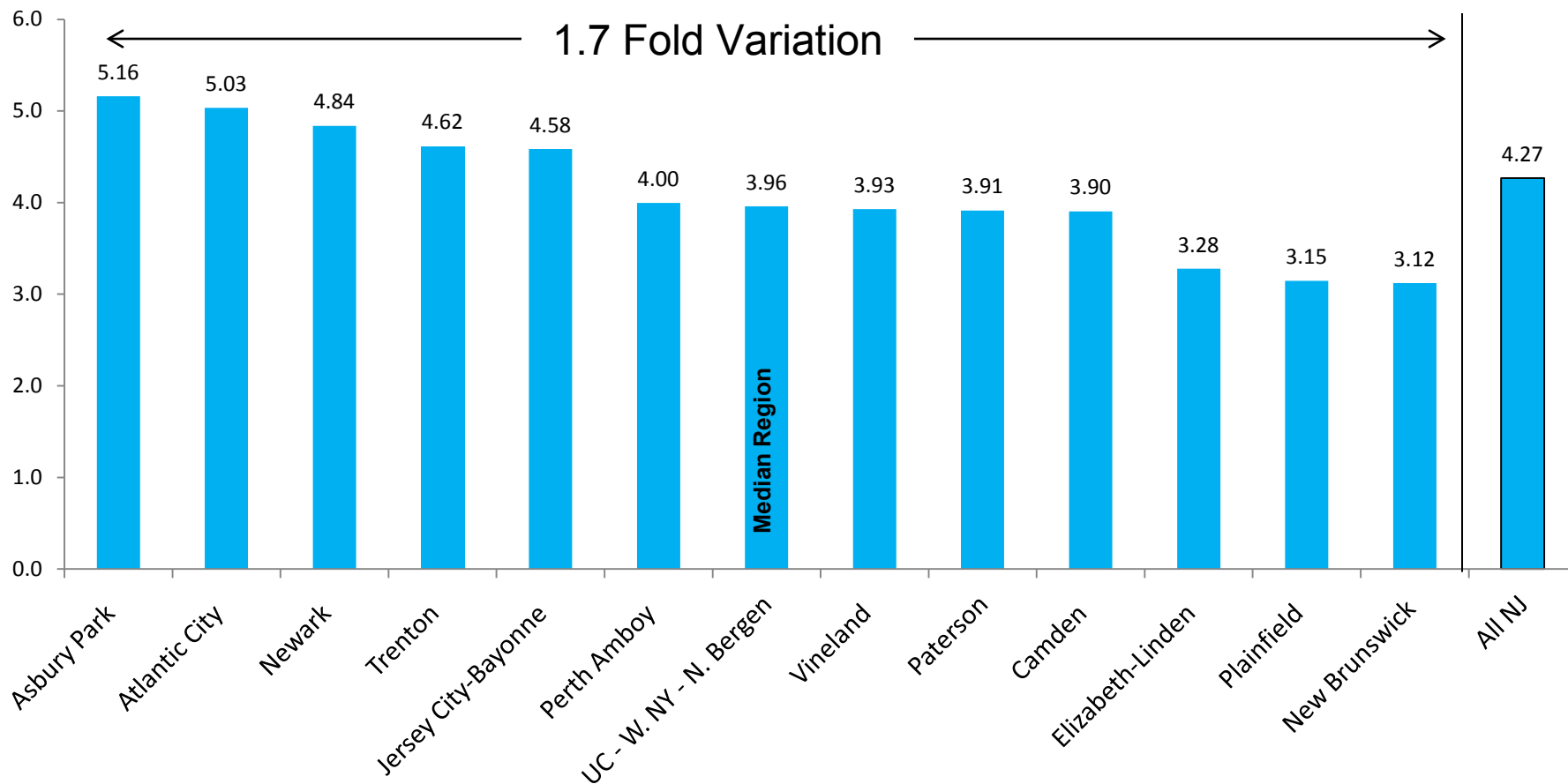
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Rates of Avoidable Emergency Department Visits



Rate per 100,000 population
 Center for State Health Policy

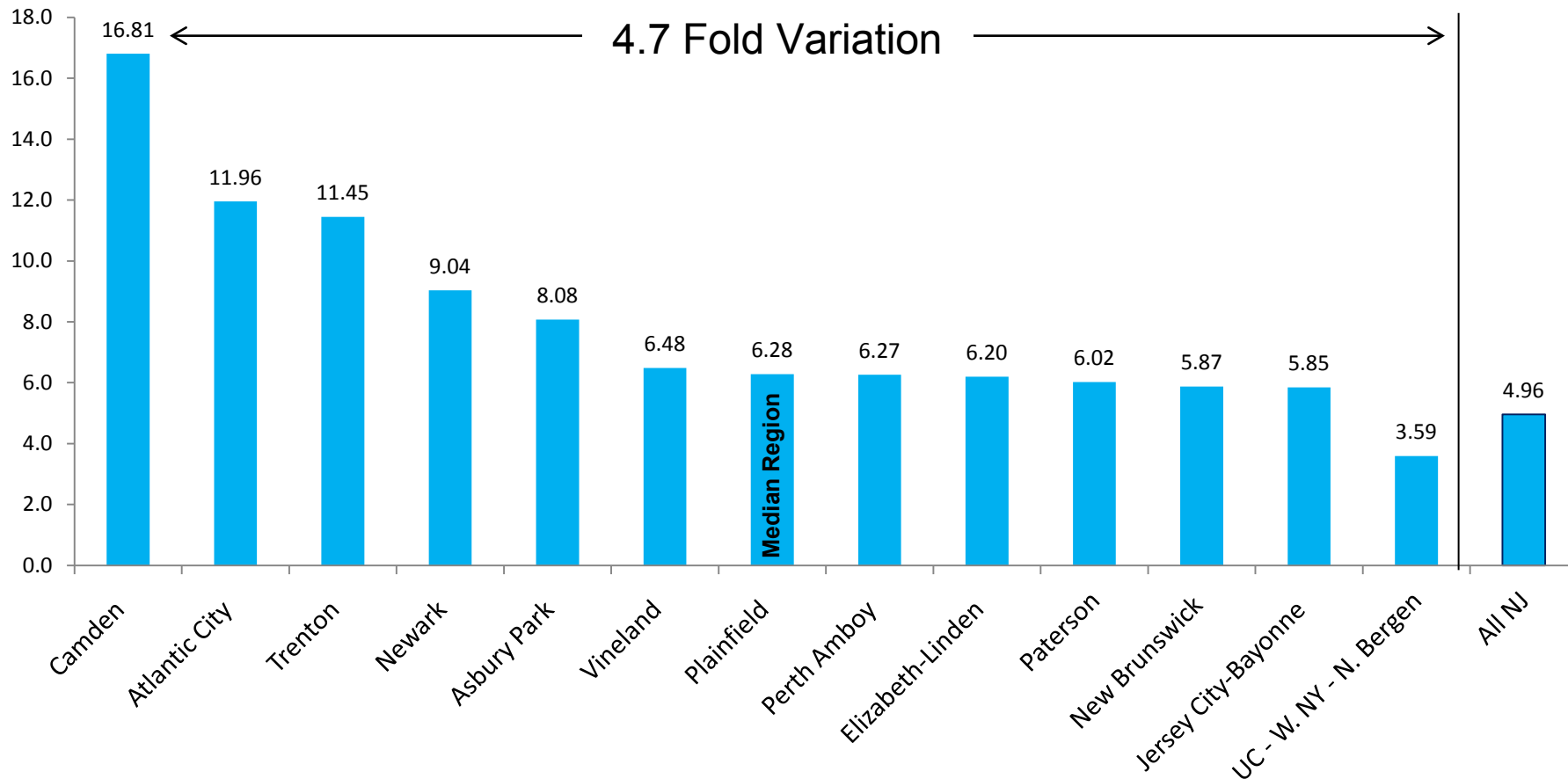
Rates of Inpatient High Use



Rate per 100 hospital users

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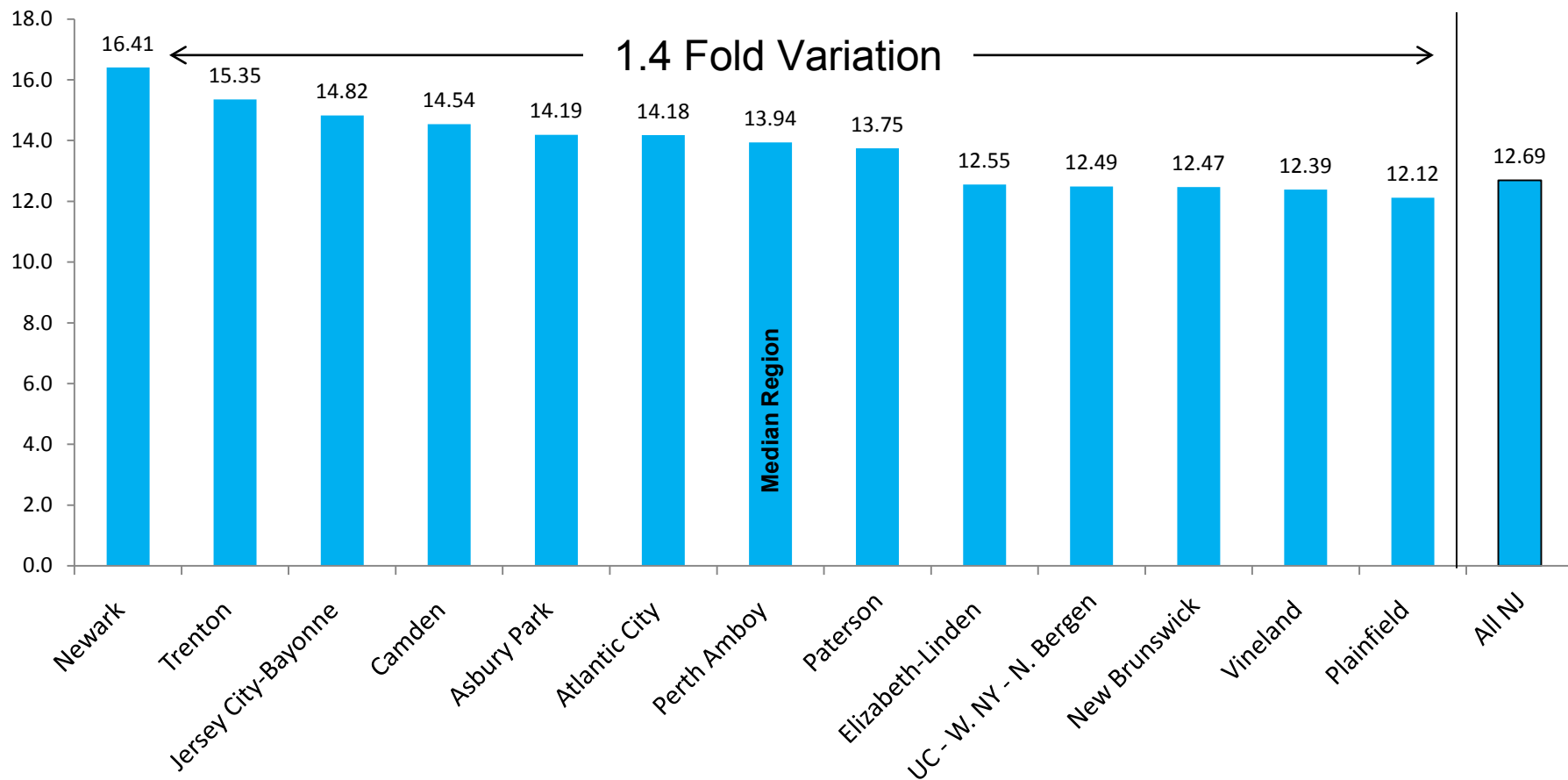
Rates of Treat-and-Release ED High Use



Rate per 100 hospital users

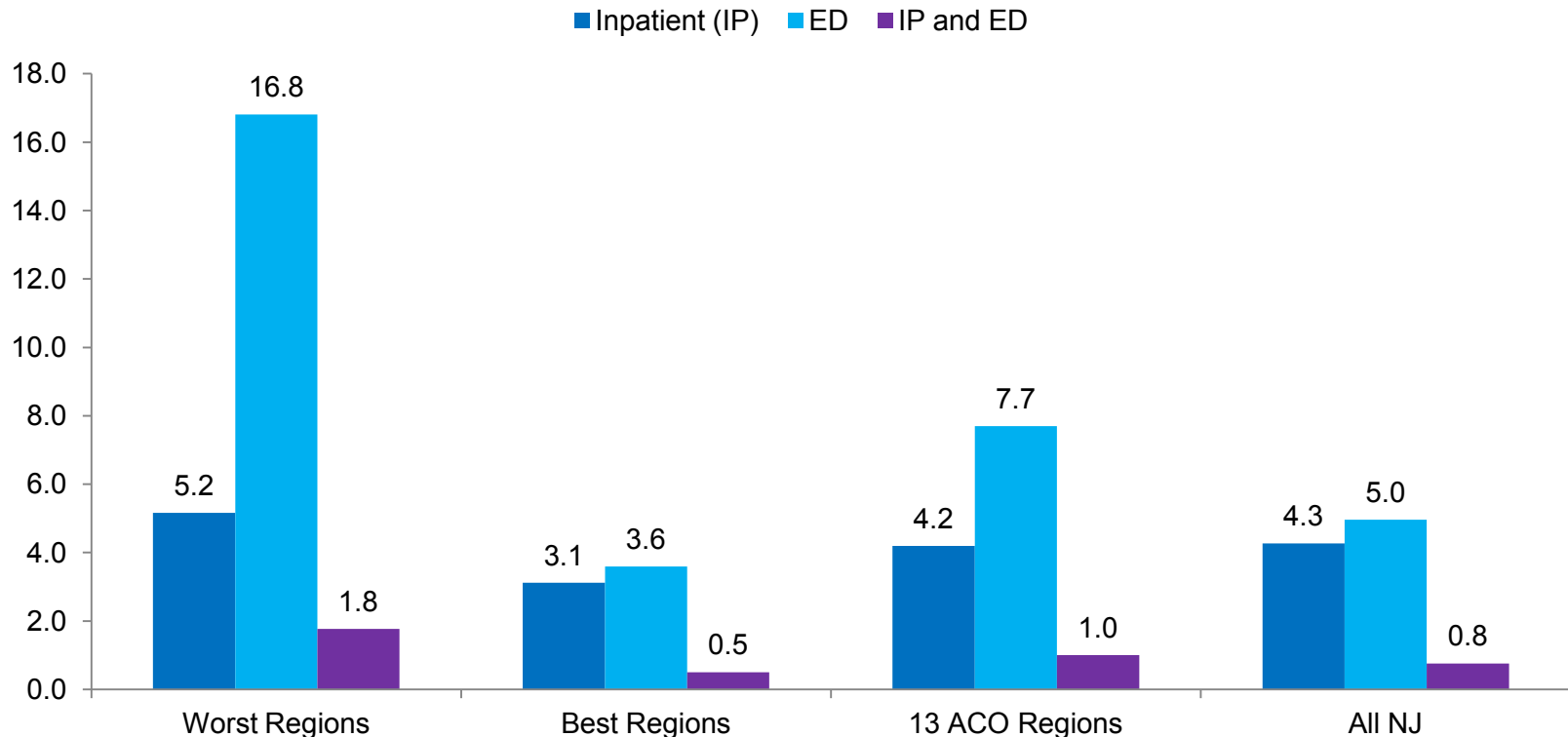
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30-Day All-Cause Readmission Rates



Age-sex adjusted rate per 100 'index' (initial) hospitalizations

Few Patients are *Both* Inpatient and ED High Users



High users per 100 hospital users with high inpatient use (IP), high treat-and-release ED use, or *both* high IP and ED use.

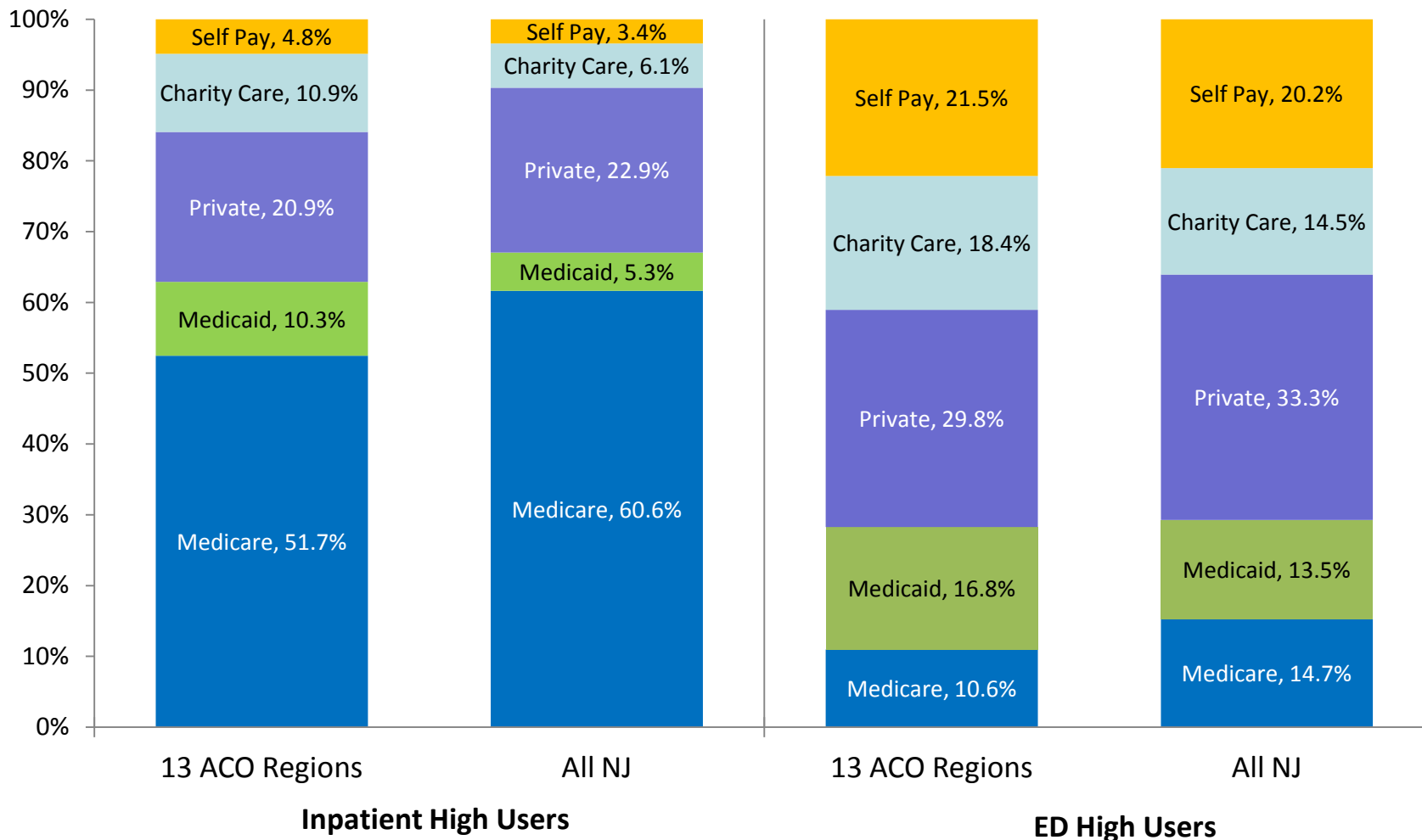
High inpatient use is defined as 4 or more stays over 2008-2010.

High ED use is 6 or more visits over 2008-2010.

The worst performing regions for these three measures are Asbury Park, Camden and Atlantic City.

The best performing regions for the first measure is New Brunswick, and for the remaining two is Union City.

Very Different Payer Mix of Inpatient and ED High Users

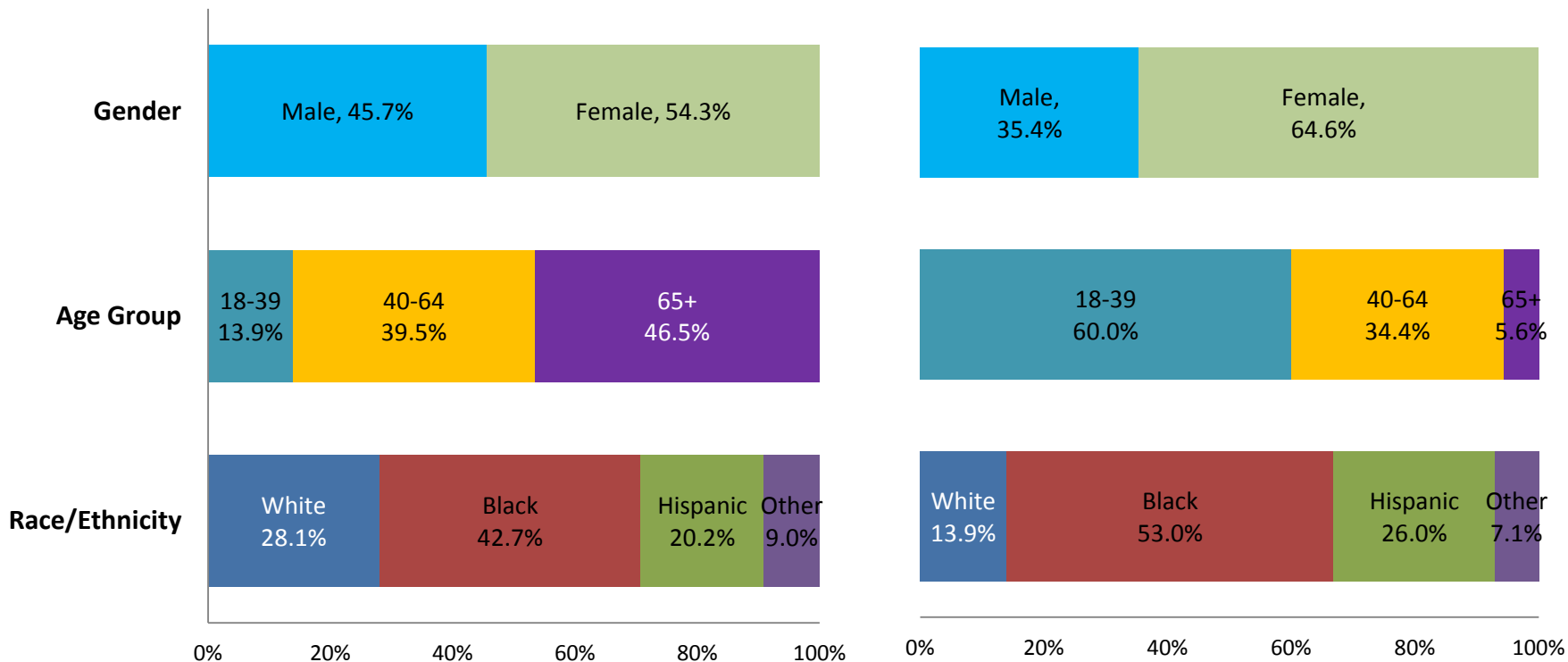


Demographics also vary for Inpatient and ED High Users

13 ACO Regions

Inpatient High Users

ED High Users



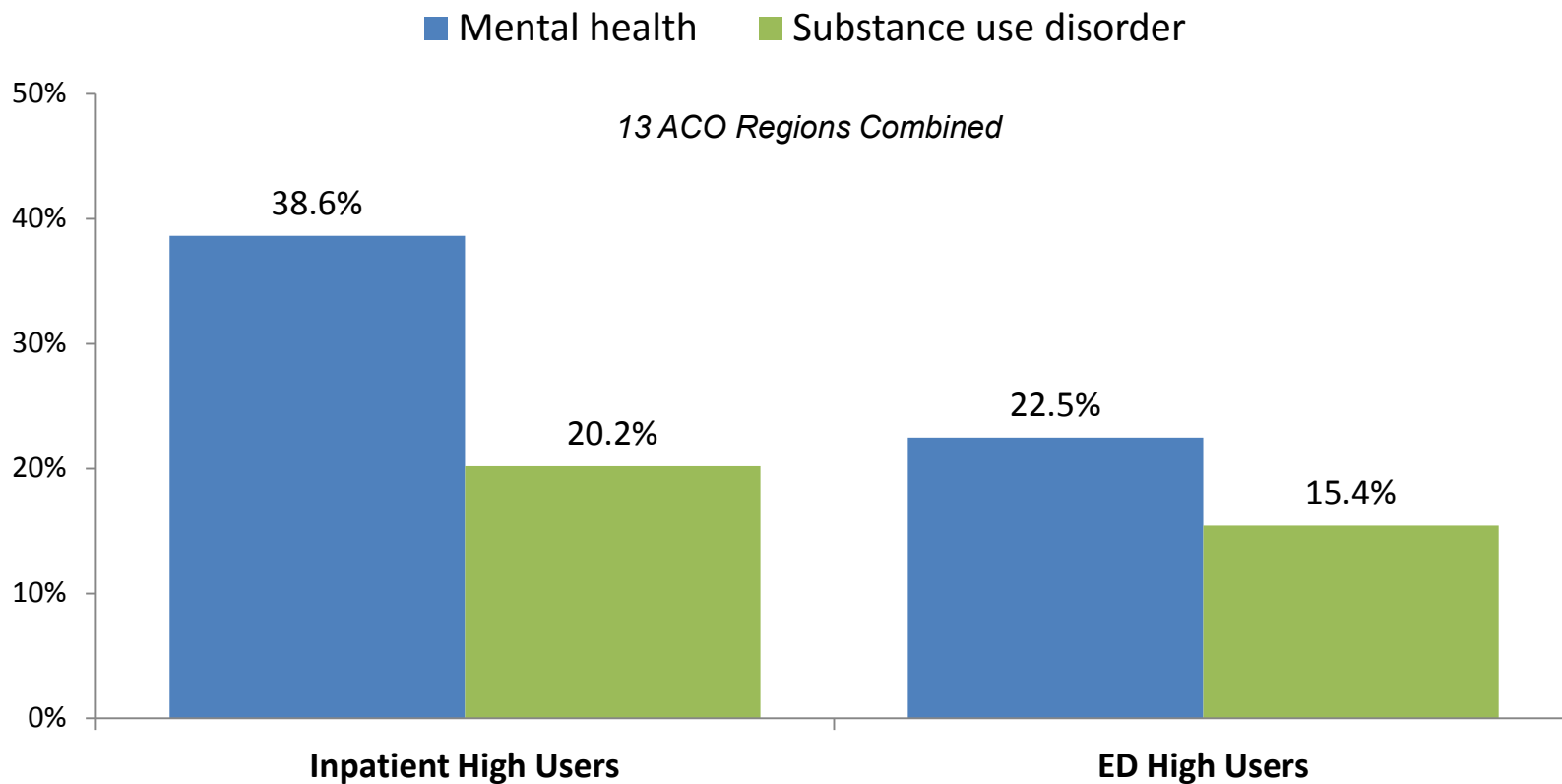
High ED users are more likely to be women, younger, and minority compared to high inpatient users

Most Common Principal Diagnoses

Chronic conditions common among inpatient users and often vague symptoms in the ED

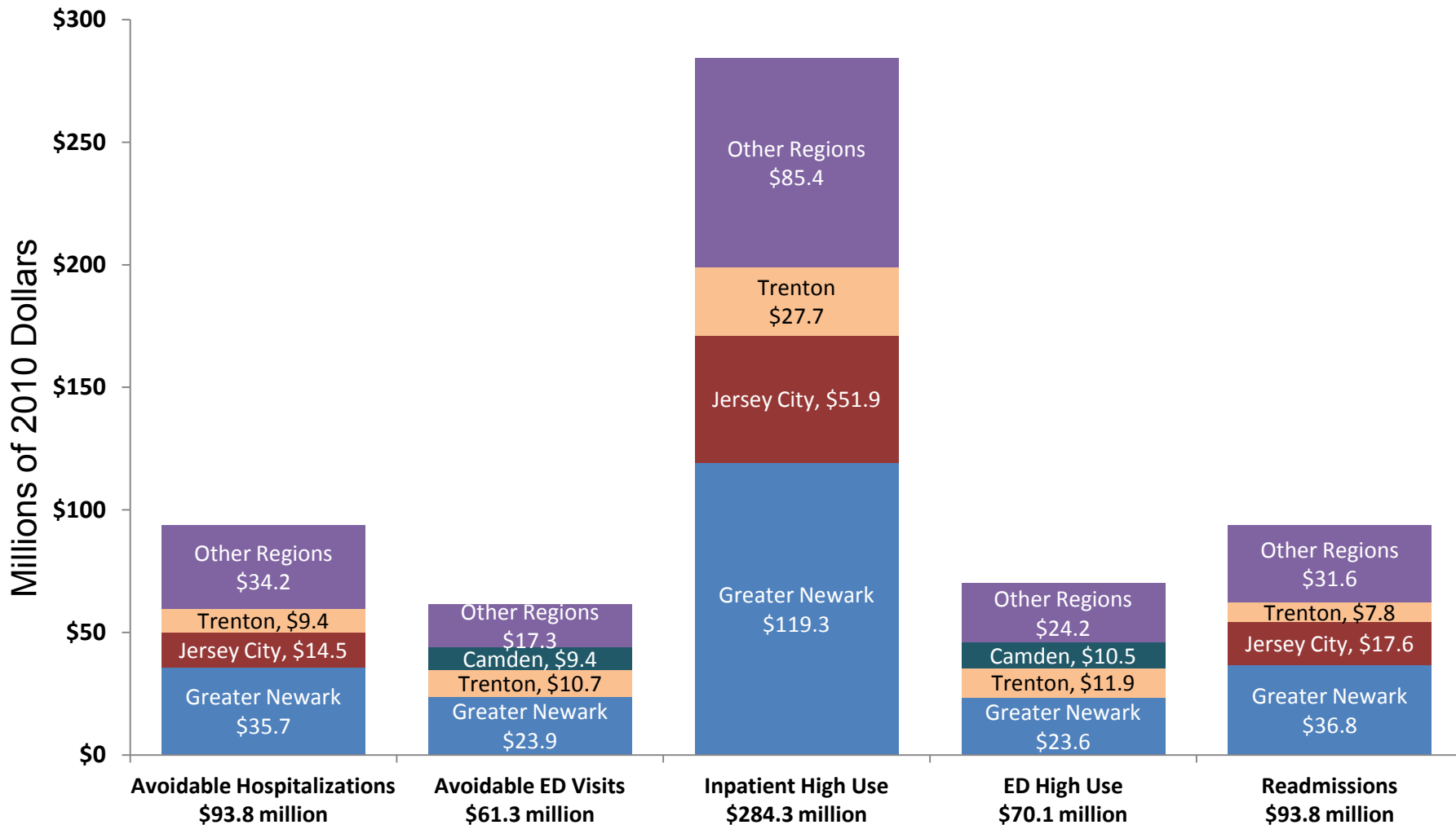
Inpatient High Users	ED High Users
Heart failure	Other symptoms involving abdomen and pelvis
Septicemia	Symptoms involving respiratory system and other chest symptoms
Diabetes mellitus	Other and unspecified disorders of back
Other forms of chronic ischemic heart disease	Asthma
Symptoms involving respiratory system and other chest symptoms	General symptoms

High Users Commonly have Behavioral Health Co-Morbidities

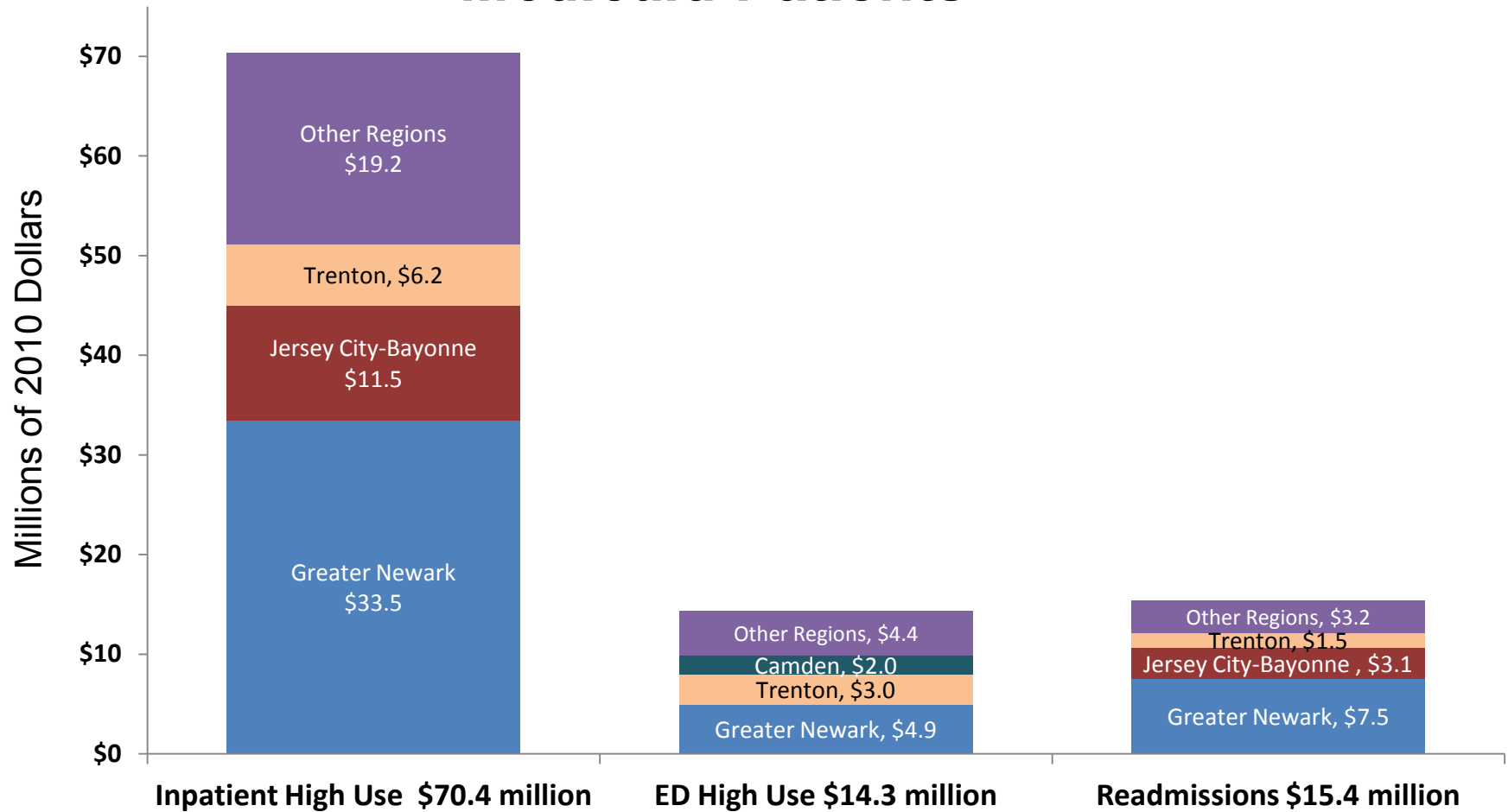


“Mental health” diagnoses includes substance use diagnoses
 Percentages represent proportion of high use inpatient stays or ED visits

Regions with Highest Savings Potential



Regions with Highest Savings Potential among Medicaid Patients



Study Implications

- **Wide variation across the 13 communities suggests improvement is achievable**
 - The best performing communities do about as well as state average
 - But on average, ACO regions perform much worse than state average
- **Substantial hospital savings if the 13 communities achieved the cost profile of the best performing area among them**
 - \$284 million from reduced **inpatient high user** costs (2010 \$)
 - \$155 million from reduced **avoidable inpatient and emergency department** costs
 - \$94 million from reduced **readmission** costs
 - \$70 million from reduced **emergency department high user** costs
- **Payer mix and demographics different for inpatient and ED users**
 - Potential savings greatest from reducing avoidable *inpatient* use
 - Hospital financial incentives vary, payment reform vital

Safety net ACO work is challenging!

- High rates of behavioral health problems
- Patient engagement
- Identifying patients for whom better care *can lead to* lower cost
- Achieving true collaboration among hospitals, primary care, behavioral health, social services *and* the community
- Bringing Medicaid managed care organizations to the table

Thank You

*Complete findings available at
www.cshp.rutgers.edu*