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THE STATE UNIVERSITY OF NEW JERSEY

Use of Emergency Departments (EDs) for Non-traumatic Oral Care in New Jersey, 2008-2010

Presentation of Findings
March 31, 2014

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Presented by Rutgers Center for State Health Policy
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Dr. Cecile Feldman, DMD, MBA, Dean of the Rutgers School of Dental Medicine

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Ping Shi of the NJ Dept. of Health, Center for Health Statistics

Sujoy Chakravarty, Jian Tong, Oliver Lontok, and Daisuke Goto of Rutgers Center for State Health Policy (CSHP)

The CSHP authors are solely responsible for the findings presented in this webinar. No endorsement by any other institution or person is intended or should be inferred.

OUTLINE

- Background & Methods
- Findings (NJ overall and 13 low-income regions)
  - ED oral care **visit rates**
  - ED oral care **high-user rates**
  - Characteristics of **users** of EDs for oral care
  - Characteristics of **high users** of EDs for oral care
- Summary, Conclusions & Implications
- Comments by
  - Dr. Cecile Feldman, Dean of the Rutgers School of Dental Medicine
  - Dr. Tonya X. Cook, Chief Dental Officer, Jewish Renaissance Medical Center
  - Dr. Barbara Rich, Past President of the New Jersey Dental Association and State Board of Dentistry
- Q&A

PREVENTABLE USE OF EMERGENCY DEPARTMENTS

- Difficulty accessing comprehensive community-based dental care can lead to care-seeking for oral health problems in hospital EDs.

- EDs generally do not have dental providers on staff and can usually only provide temporary treatment, such as antibiotics and pain medication, with referrals for follow-up care by a dental professional in the community.

- Use of EDs for non-traumatic oral care is therefore an expensive and preventable use of services that will rarely provide definitive treatment.

OBJECTIVE

- Inform strategies to improve access to oral and dental care in the community for vulnerable populations in New Jersey

APPROACH

- For NJ overall and the population in 13 low-income regions in the state (regions having at least 5,000 Medicaid beneficiaries[1]),
  - examine volume and local variation in use of EDs for oral and dental conditions
  - examine demographics and other characteristics of high users of EDs for oral care

[1]Chakravarty S, JC Cantor, J Tong, et al. Hospital Utilization Patterns in 13 Low-Income Communities in New Jersey: Opportunities for Better Care and Lower Costs. New Brunswick, NJ: Rutgers Center for State Health Policy, 2013.

RUTGERS

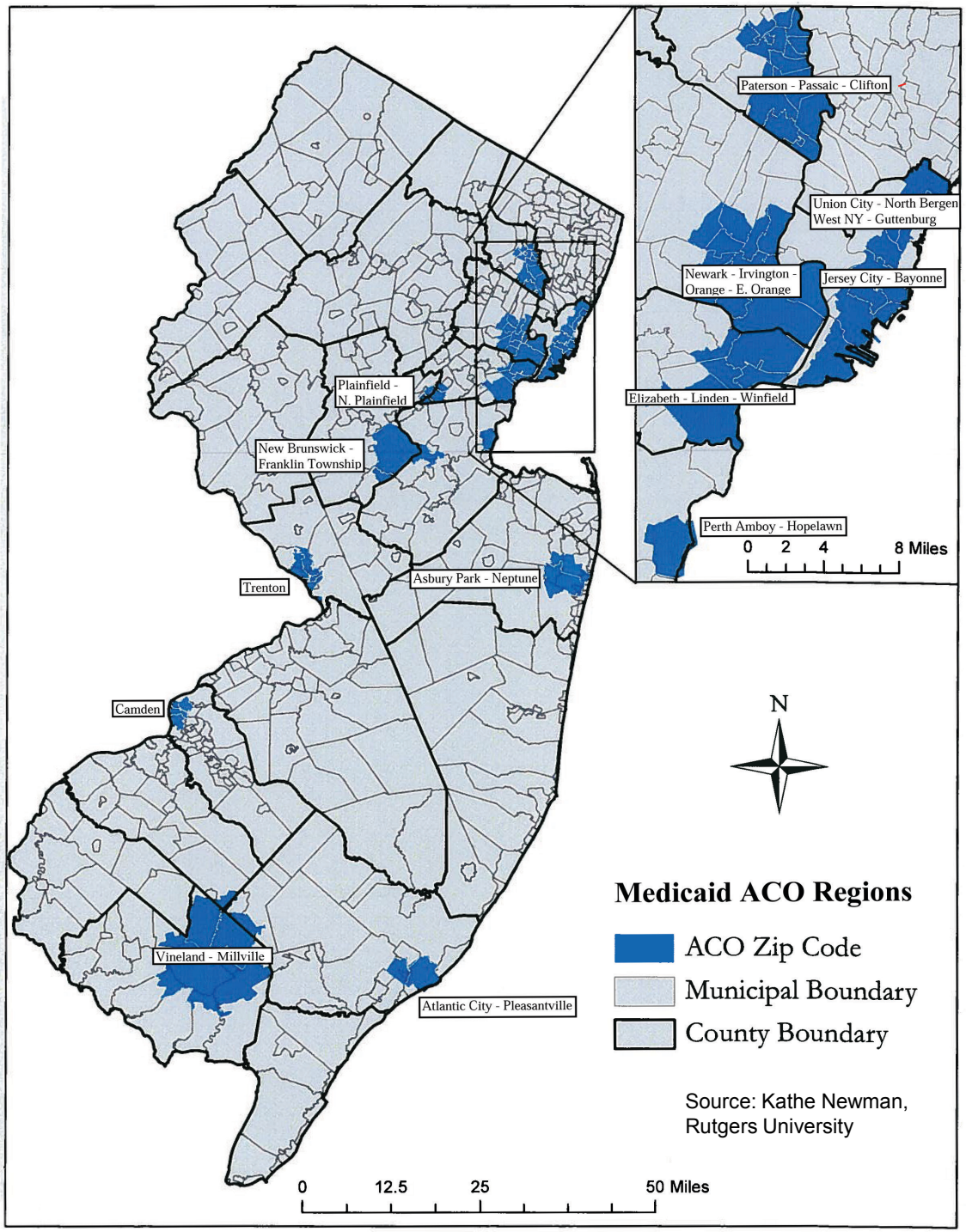
13 Low-Income Regions
Camden*
Greater Newark**
Trenton***
Asbury Park-Neptune
Atlantic City-Pleasantville
Elizabeth-Linden
Jersey City-Bayonne
New Brunswick-Franklin
Paterson-Passaic-Clifton
Perth Amboy-Hopelawn
Plainfield, North Plainfield
Union City-W. NY- Guttenberg-N. Bergen
Vineland-Millville

*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)

Center for State Health Policy



METHODS

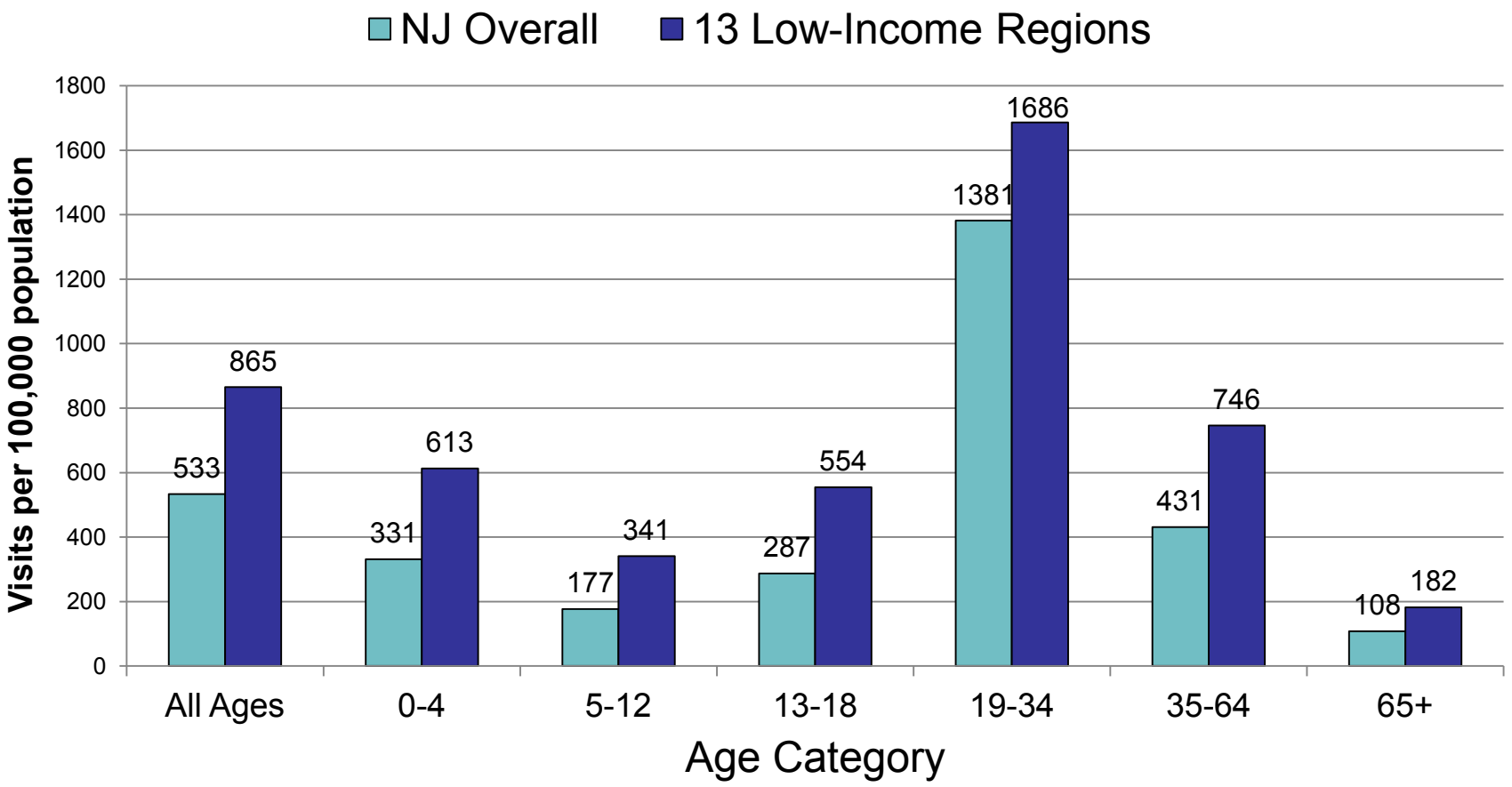
- New Jersey Uniform Billing Hospital Discharge Data: 2008-2010
- 2010 Census SF1 for population data
- Visits to ED for non-traumatic oral care defined as
  - Primary ICD-9-CM diagnosis code of 520 through 529.9
    - **520** Disorders of tooth development and eruption
    - **521** Diseases of hard tissues of teeth
    - **522** Diseases of pulp and periapical tissues
    - **523** Gingival and periodontal diseases
    - **524** Dentofacial anomalies, including malocclusion
    - **525** Other diseases and conditions of the teeth and supporting structures
    - **526** Diseases of the jaws
    - **527** Diseases of the salivary glands
    - **528** Diseases of the oral soft tissues, excluding lesions specific for gingiva and tongue
    - **529** Diseases and other conditions of the tongue
- High user defined as 4 or more oral care visits over 2008-2010 (which is equal to or above 96th percentile based on statewide distribution).

TEN MOST FREQUENT PRIMARY DIAGNOSES FOR ORAL ED VISITS – NJ OVERALL

	Primary ICD-9-CM Diagnosis Code and Description	Average Annual Number of Visits	Percent of all Oral Visits
1	525.9 : UNSPECIFIED DENTAL DISORDER	21,771	46.4
2	522.5 : PERIAPICAL ABSCESS	7,006	14.9
3	521.00: UNSPECIFIED DENTAL CARIES	5,394	11.5
4	528.9 : OTHER AND UNSPECIFIED DISEASES OF THE ORAL SOFT TISSUES	1,327	2.8
5	525.8 : OTHER SPECIFIED DENTAL DISORDERS	1,010	2.2
6	527.2 : SIALOADENITIS	933	2.0
7	523.10: CHRONC GINGIVITIS	888	1.9
8	522.4 : ACUTE APICAL PERIODONTITIS	800	1.7
9	526.9 : UNSPECIFIED JAW DISEASE	664	1.4
10	524.60: UNSPECIFIED TEMPOROMANDIBULAR JOINT DISORDERS	653	1.4

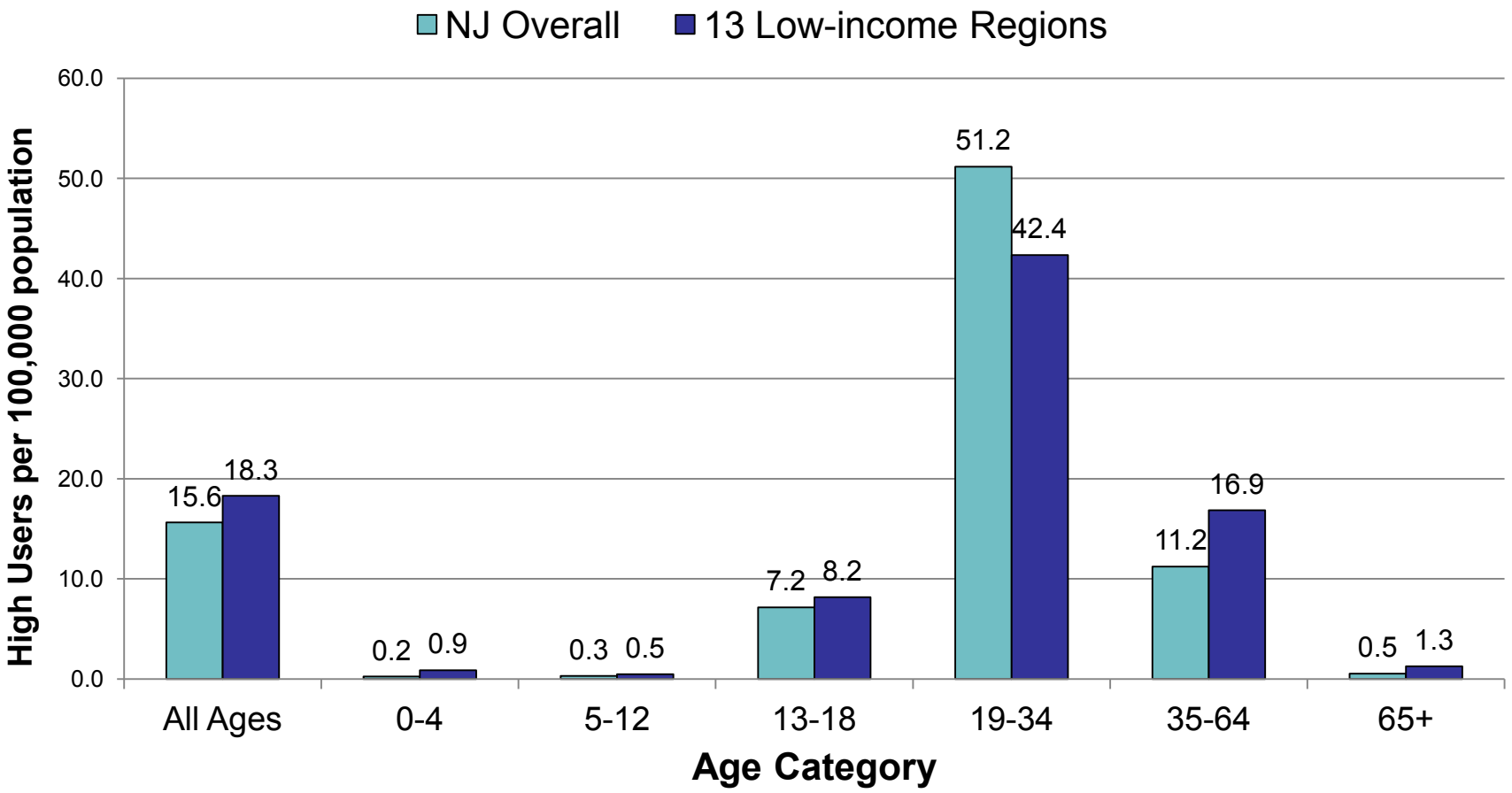
Source: 2008-2010 UB hospital discharge data

RATE OF ED VISITS FOR ORAL CARE BY AGE CATEGORY



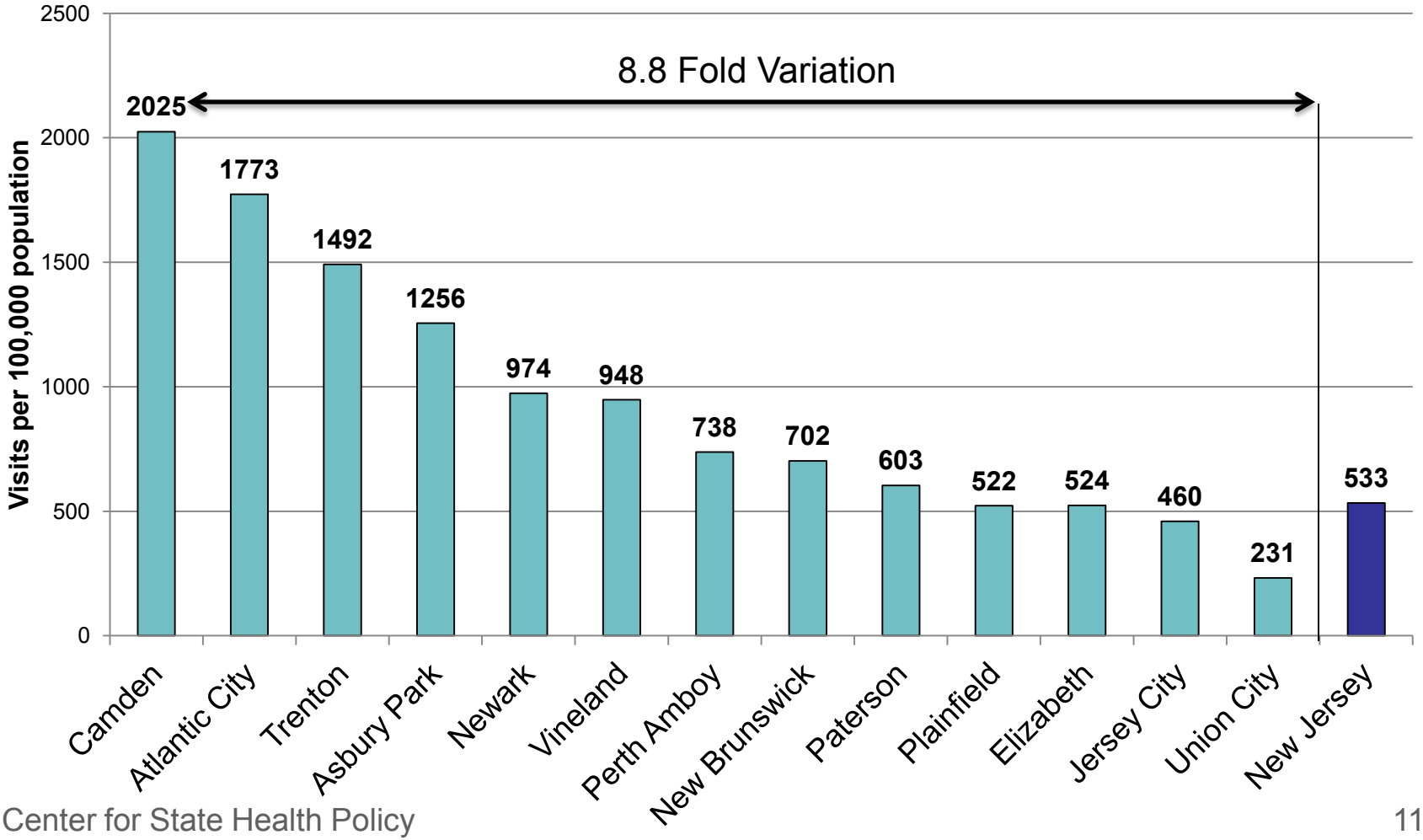
Source: 2008-2010 UB hospital discharge data

RATE OF ED ORAL CARE HIGH USERS BY AGE CATEGORY

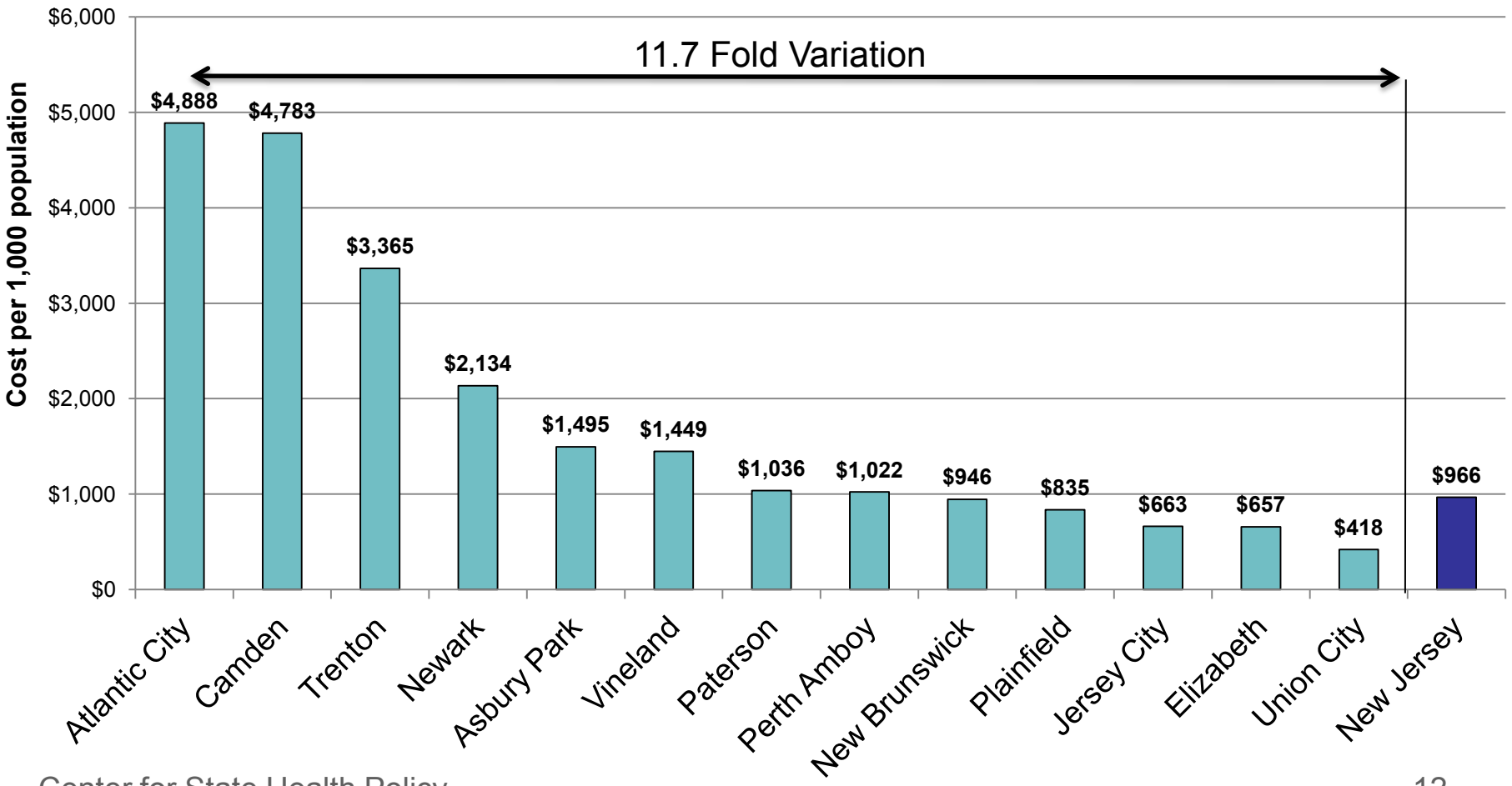


Source: 2008-2010 UB hospital discharge data

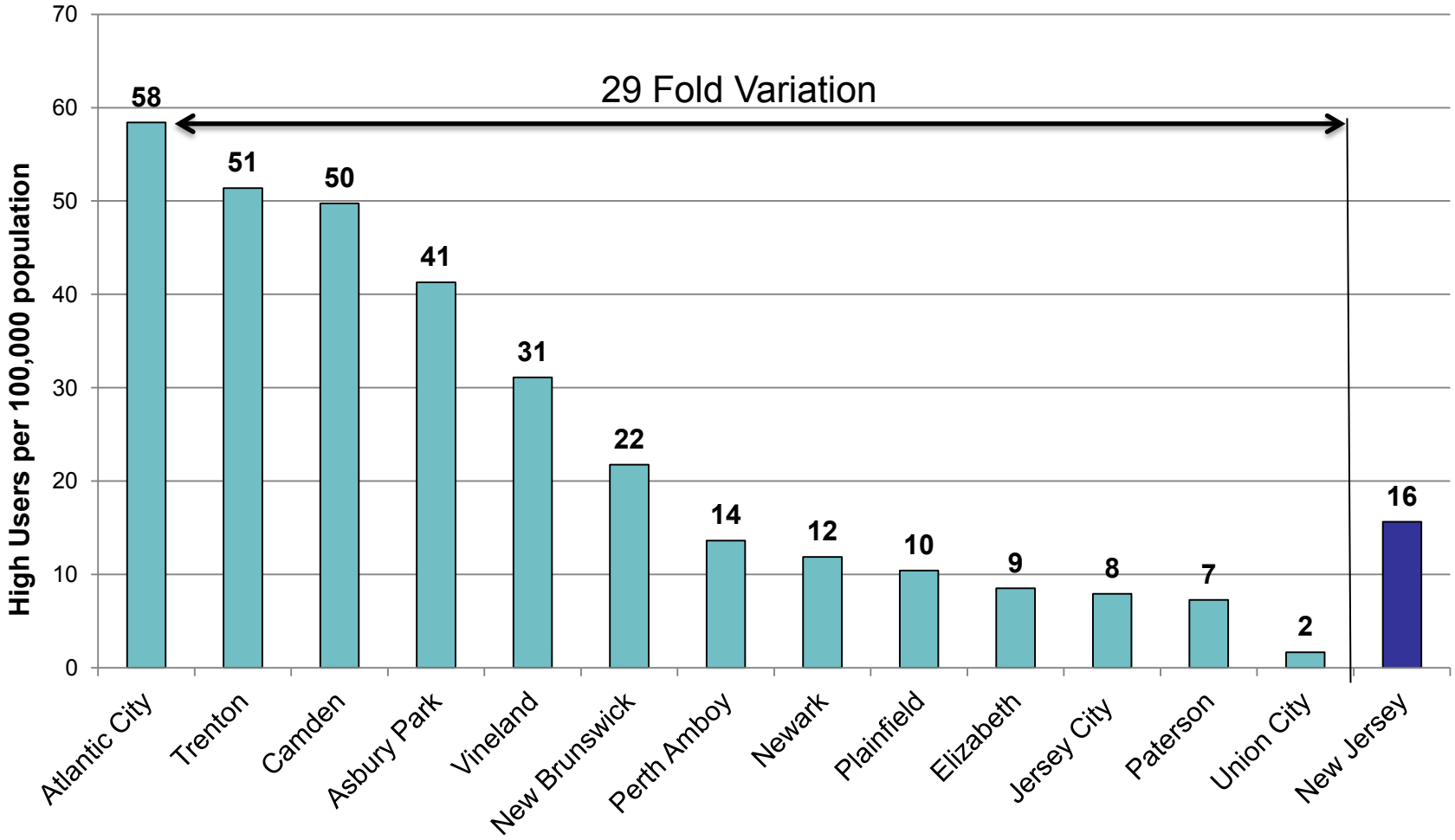
AGE-SEX ADJUSTED RATES OF ED VISITS FOR ORAL CARE IN 13 LOW-INCOME REGIONS



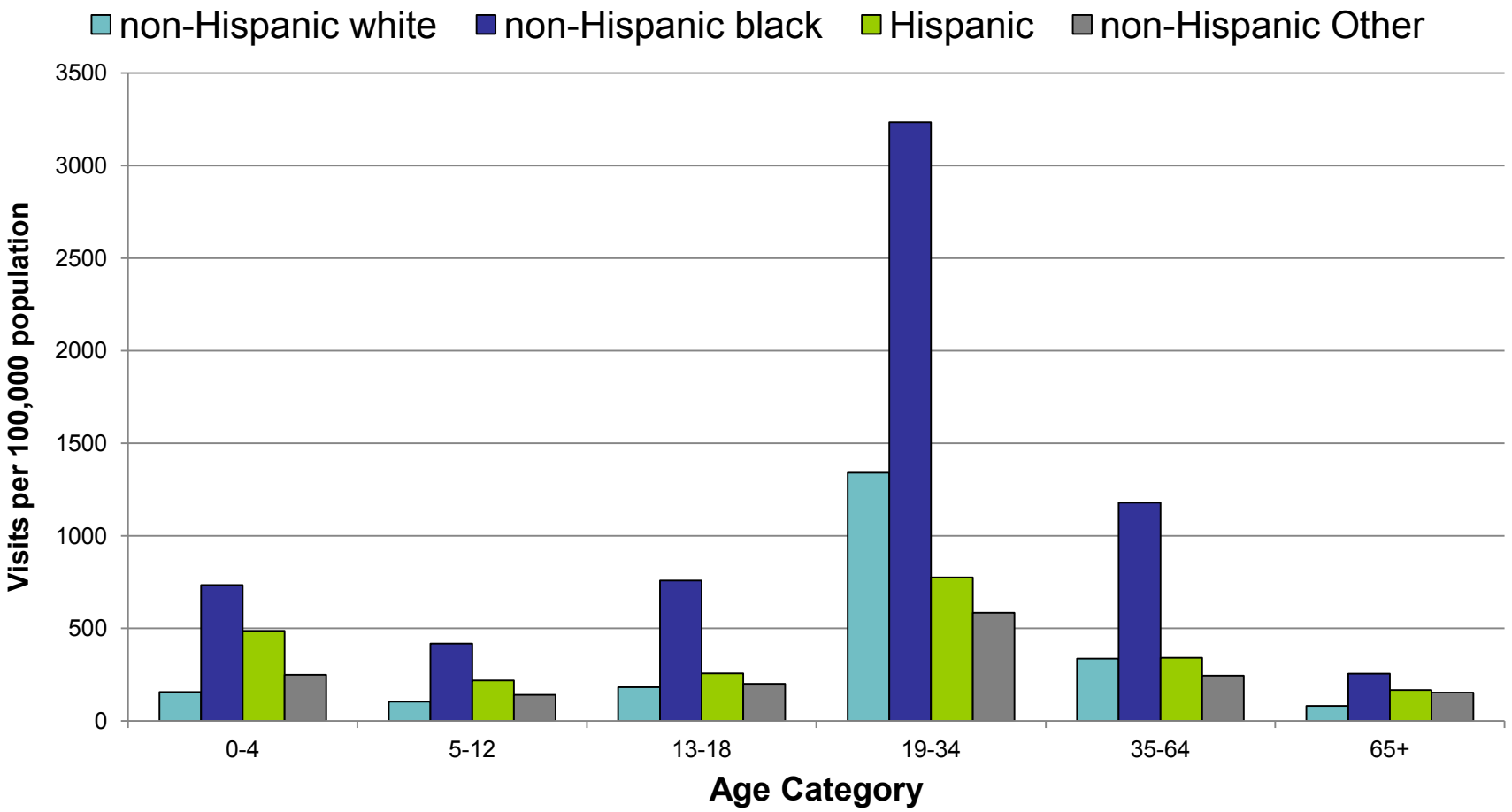
AGE-SEX ADJUSTED COSTS OF ED VISITS FOR ORAL CARE IN 13 LOW-INCOME REGIONS



AGE-SEX ADJUSTED RATES OF ED ORAL CARE HIGH USERS IN 13 LOW-INCOME REGIONS

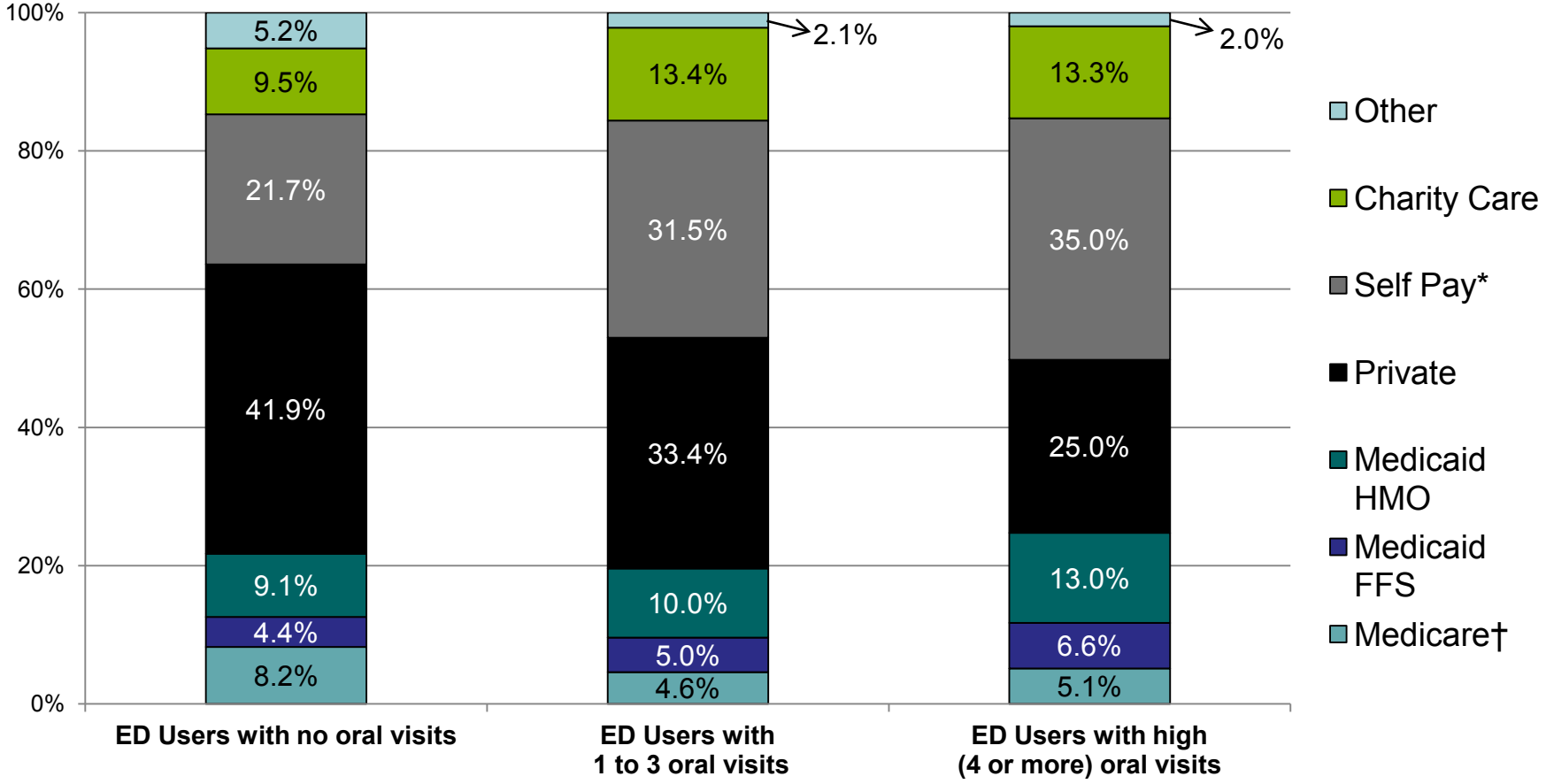


RATE OF ED VISITS FOR ORAL CARE BY AGE CATEGORY AND RACE/ETHNICITY – NJ OVERALL



Source: 2008-2010 UB hospital discharge data

DISTRIBUTION OF HEALTH INSURANCE PAYER TYPE BY FREQUENCY OF ED ORAL CARE VISITS – NJ OVERALL



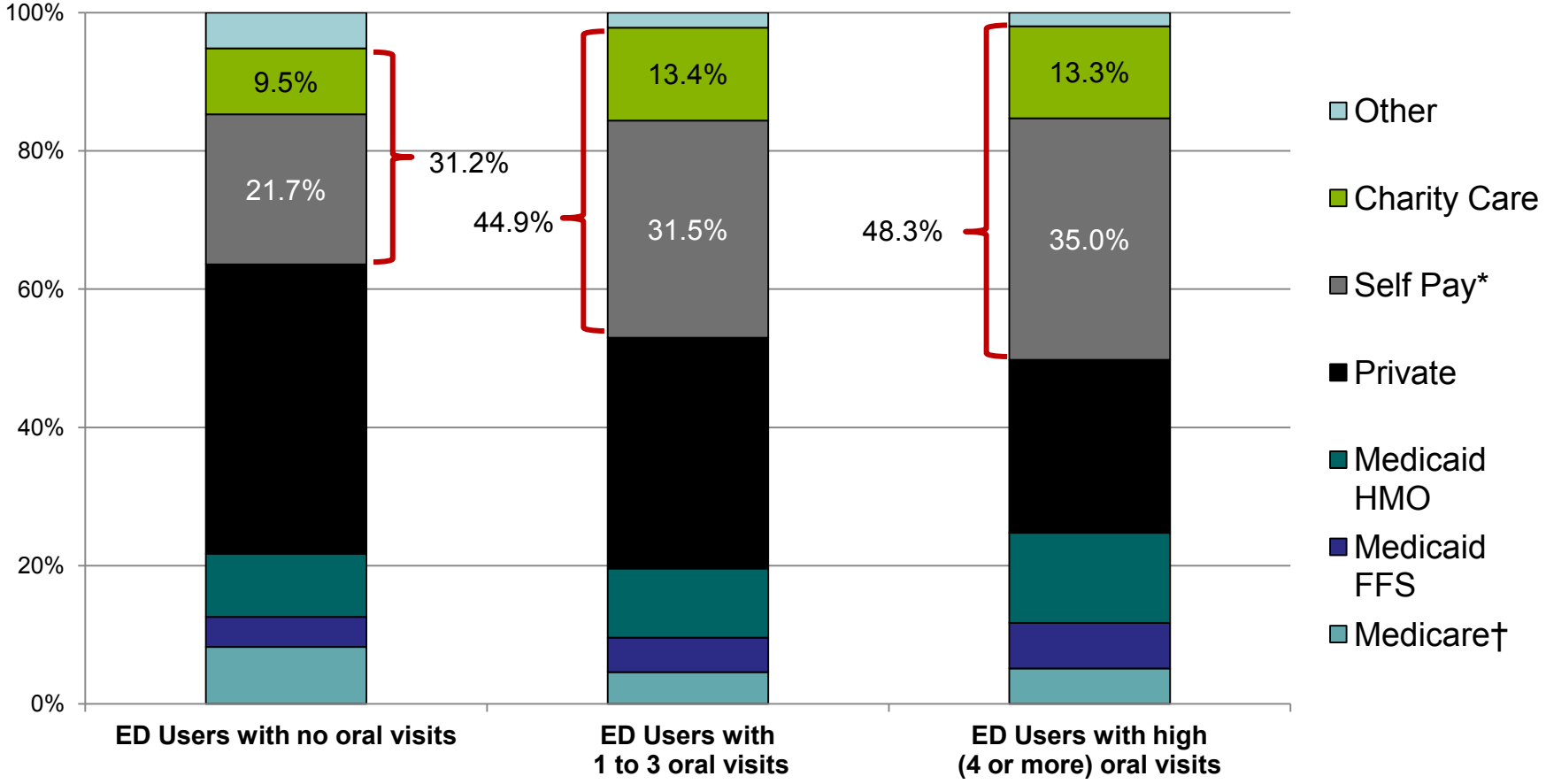
Source: 2008-2010 UB hospital discharge data

Note: FFS=Fee-For Service; HMO = Health Maintenance Organization; Payer category is assigned using information from the patient's first ED visit.

*Self pay category includes patients classified as self-pay and uninsured.

†Medicare category includes the dual eligible population, those with both Medicare and Medicaid.

DISTRIBUTION OF HEALTH INSURANCE PAYER TYPE BY FREQUENCY OF ED ORAL CARE VISITS – NJ OVERALL



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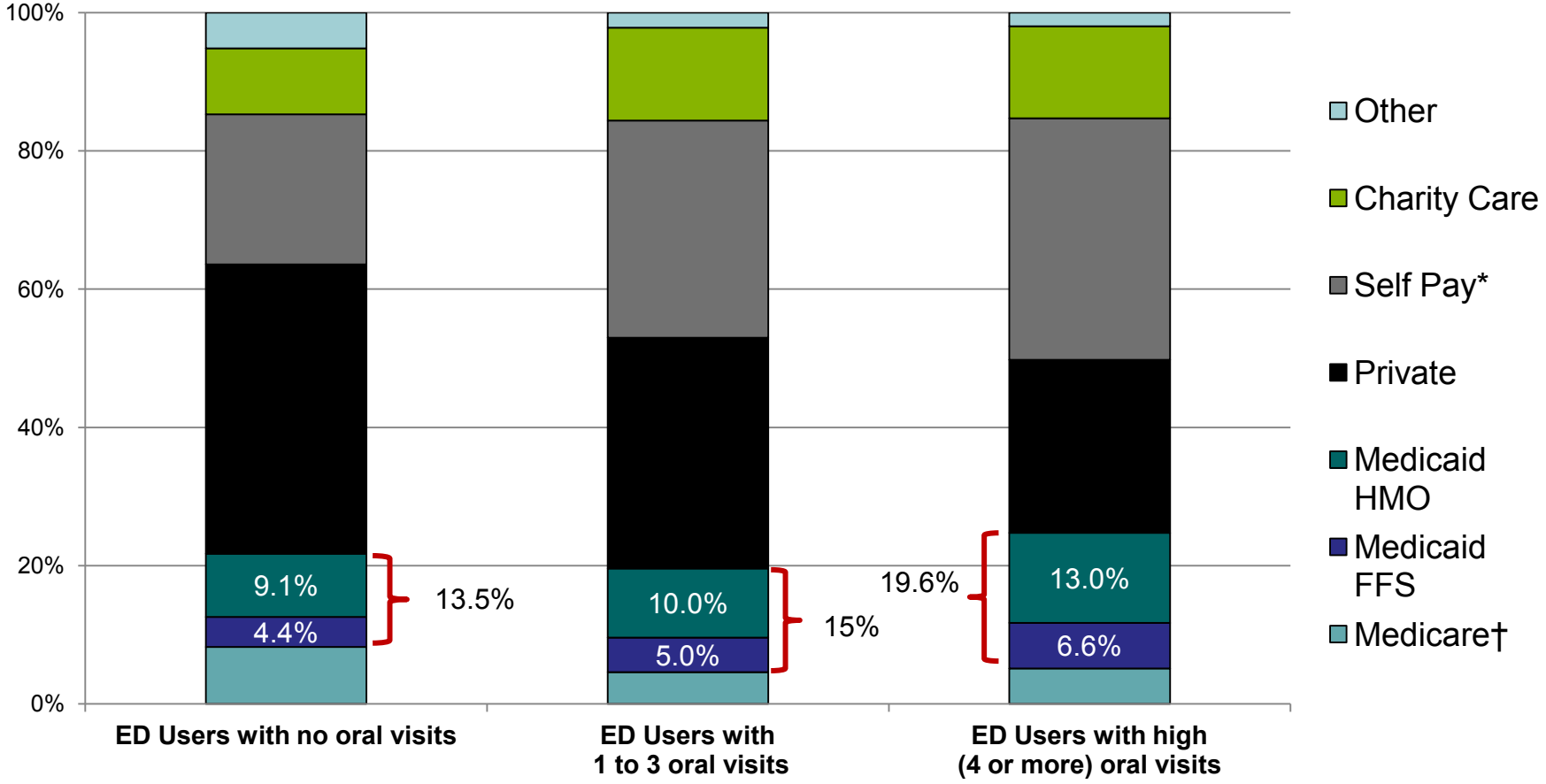

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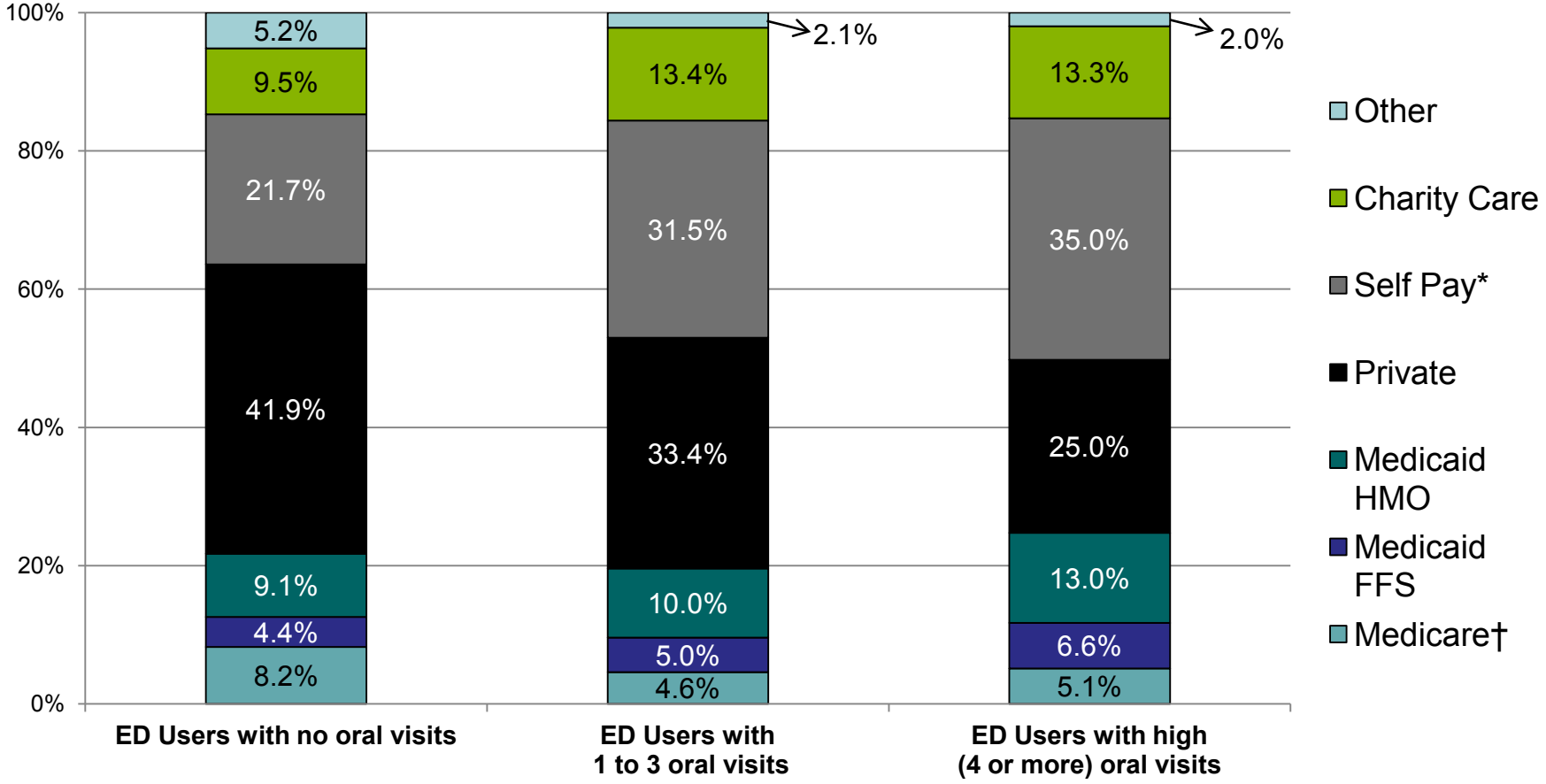

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SUMMARY (1)

- Groups with highest rates of ED oral care visits and high users
  - young adults (ages19-34)
  - non-Hispanic blacks
  - individuals in low-income regions of the state

  Consistent with findings in national studies
- Regions with highest rates of ED oral care visits, costs, and high users
  - Atlantic City-Pleasantville
  - Camden
  - Trenton
- Regions with lowest rates of ED oral care visits, costs, and high users
  - Jersey City-Bayonne
  - Union City-W. NY- Guttenberg-N. Bergen

SUMMARY (2)

- Users of the ED for oral care are disproportionately uninsured (self pay or charity care) compared to ED users with no oral care visits.
- High users, while still nearly half uninsured, are disproportionately covered by Medicaid (except ↑ charity care in Atlantic City-Pleasantville and Vineland-Millville) compared to users of the ED for oral care not meeting the high-user definition.
- Nearly half (46%) of ED visits for non-traumatic oral care are for unspecified dental disorders.

CONCLUSIONS & IMPLICATIONS (1)

- Large variation across regions suggests room for improvement in low-performing areas.
  - Though our findings do not explain the causes of this variation, lower-performing areas are roughly similar to higher-performing areas in their socioeconomic composition.

- ACA health insurance expansions should help dental care access for some populations, but not all
  - new Medicaid enrollees in NJ will receive dental benefits
  - weakening of the “essential” nature of pediatric oral health benefits in private plans
  - private plans not required to cover dental services for young adults and so may lead to increases in visits to primary care doctors or the ED for oral care among the newly-insured

CONCLUSIONS & IMPLICATIONS (2)

- Possible remedies to use of EDs for non-traumatic oral care
  - expand off-hours access to dental care in community settings
  - increase dental safety net and/or providers for the low-income & uninsured
  - address Medicaid reimbursement rates
  - establish dental clinics as part of an ED diversion strategy
  - strengthen ED and primary care doc links with safety net dental care providers

Final Report and Related Findings at http://www.cshp.rutgers.edu

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A Unit of the Institute for Health, Health Care Policy and Aging Research

Hospital Utilization Patterns i
Low Income Communities in New
Opportunities for Better Care and Lo

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March 2013

2009 NEW JERSEY FAMILY HEALTH SURVEY

RUTGERS
Center for State Health Policy

Facts & Findings September 2012
Utilization and Insurance Coverage
Dental Services among New Jersey

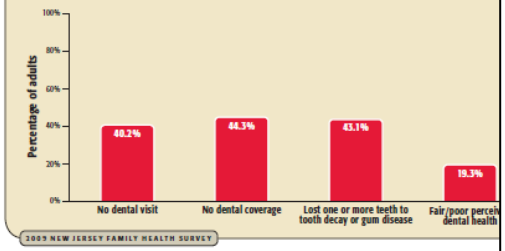
Key findings

- *Forty percent of adults in New Jersey did not visit a dentist in the past year.*
- *The major barriers to dental care for adults are socioeconomic. Those who lack dental coverage and those with low incomes are the least likely to have visited a dentist.*
- *Independent of dental insurance and income, several other population groups are at higher risk of receiving no dental care. They are young adults (ages 19–29), Hispanics, and males.*

Most adults today came of age during a t
by much lower public and profession
of the importance of preventive dentistry a
cycle. It was only in 2000 that the U.S. Surg
issued the first report bringing attention t
epidemic" of dental diseases[1] and made cl
implications of foregone dental care went fa
cosmetic. Having no visits to a dentist like
inadequate attention to overall oral health
consequences of poor oral health can inte
person's eating, sleeping, working and lear
Additionally, this report presented growing
oral-systemic disease connections, thereby
dental and oral health as integral to general
well-being throughout life.

National studies show profound disparities i
of dental care, primarily for those who are lo
from minority populations.[1-3] Lack of insura
for dental services is a major barrier to care.
Medicare does not provide dental benefits, a

Figure 1 | **Dental Utilization, Coverage, and Health Indicators of NJ Adults**



2009 NEW JERSEY FAMILY HEALTH SURVEY

RUTGERS CENTER FOR STATE HEALTH POLICY | FACTS & FINDINGS, SEPTEMBER 2012 | UTILIZATION AND INSURANCE COVERAGE OF DENTAL SERVICES AMONG NE

OPPORTUNITIES FOR BETTER CARE AND LOWER COSTS

RUTGERS
Center for State Health Policy

Facts & Findings March 2014
Use of Emergency Departments for
Non-traumatic Oral Care in New Jersey

Key findings

- *By a large margin, young adults (ages 19-34) have the highest rate of visits to emergency departments (EDs) for non-traumatic oral care and are the most likely to be high users of the ED for oral care.*
- *There is great variation in the age-sex adjusted costs and ED visit rates for oral care across 13 selected low-income regions in New Jersey. This variation suggests large differences in the prevalence of unmet need for oral care services and room for improvement in access to community-based dental care.*
- *Non-Hispanic blacks have the highest oral care ED visit rate in every age category, statewide and in the 13 low-income regions.*
- *Users of EDs for oral care are disproportionately uninsured (self-pay or charity care); high users, while still nearly half uninsured, are disproportionately covered by Medicaid.*
- *One-third of high users of the ED for oral care have a co-occurring diagnosis of tobacco use disorder.*

Emergency departments (EDs) are poorly equipped to deal definitively with dental and oral health needs. Still, many people seek care in the ED for non-traumatic dental and dental-related conditions, possibly indicating inadequate access to dental care in the community. Affordability and dental provider shortages are known to be persistent barriers to regular and comprehensive oral care, especially for low-income and minority populations.[1-4] This Facts & Findings examines variations in ED use for oral care to identify the regions and populations where improvement in access to dental services has the potential to reduce costs and prevent not only dental diseases, but all the long-term sequelae of poor oral health (e.g., nutritional deficiencies, elevated cancer risk, and adverse psychosocial outcomes).[5]

Our analysis focuses on treat-and-release visits to EDs for oral care in New Jersey and in 13 selected low-income NJ regions[6] from 2008 to 2010. We defined visits for oral care as any visit having a non-traumatic oral condition as the primary diagnosis (ICD-9-CM codes 520-529.9). This analysis also investigates characteristics of high users of the ED for oral care. High users were defined as individuals with four or more visits to the ED for oral care during the three-year study period (equivalent to the 96th percentile and above). All findings are derived from uniform billing (UB) records for all New Jersey hospitals. Through a special arrangement with the NJ Department of Health, our UB database includes encrypted patient identifiers that allow us to identify multiple visits made by the same individual patient over time.

Thank You!

If you have any questions or comments you would like to share after the conclusion of this webinar, please contact me at

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