2012 Issue 2

Rhode Island Oral Health Issue Brief

Rhode Island Hospital Emergency Department Visits for Non-Injury Related Oral Health Conditions among Adults Age 21–64, 2006–2010

Why is Emergency Department (ED) use for oral health conditions such a concern?

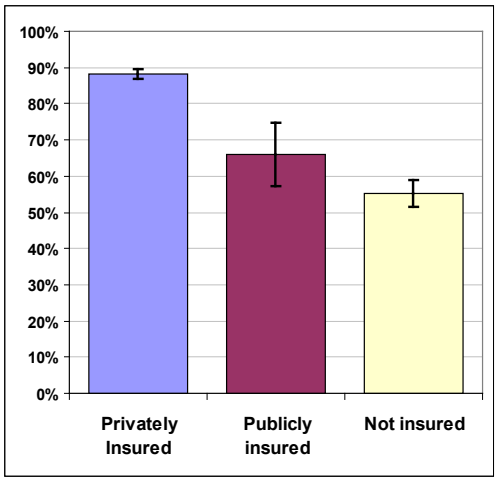
This issue brief aims to:

- Report the extent of adults' Emergency Department visits in Rhode Island hospitals for oral health conditions that are mostly preventable and treatable in outpatient dental clinics and dental offices
- Summarize Emergency Department visits for oral health conditions by age group and insurance status
- Discuss potential interventions to assure optimal oral health care for all Rhode Islanders

More than one quarter of Rhode Island adults younger than 65 years old are estimated to be without dental insurance coverage. According to statewide health behavior surveys in 2008 and 2010, 22% of Rhode Island adults age 21–64 years reported their last preventive dental visit (dental cleaning) occurred more than one year ago. More than half of these adults did not have dental insurance.

Even among individuals who have dental insurance, coverage limitations vary and may restrict access to dental care which can result in high out-of-pocket costs. Rhode Island adults enrolled in Medicaid are eligible for a very limited scope of dental services and are less likely than those with private insurance to receive necessary acute and routine dental care. (Figure 1).

Figure 1. Rhode Island adults (age 21-64) who had a dental cleaning in the past year by dental insurance type



Data source: Rhode Island Behavorial Risk Factor Surveillance System, 2008 and 2010

As a consequence, adults with limited or no dental insurance coverage are more likely to avoid routine preventive dental care, delay dental care as symptoms emerge, and rely on hospital emergency departments to treat acute and urgent oral and dental problems.

Emergency Departments perform critical and highly-demanded services for communities, including treatment for emergency oral and dental problems. Emergency Departments also serve as safety net dental providers for a significant number of low-income and uninsured Rhode Island adults who have limited access to oral health care due to a lack of dental insurance, immigration status, or a number of other reasons. However, this reliance on the ED for less severe, or non-emergent oral/dental conditions results in significant health care spending and increased pressure on the already overburdened EDs throughout the state.

About the Data Source: Rhode Island Hospital Discharge Data

Since 1989, Rhode Island hospitals are required to submit financial and statistical data using the statewide uniform reporting system to the Rhode Island Department of Health pursuant to their licensure authority.

Data on hospital inpatient and Emergency Department (ED) encounters are submitted by 14 Rhode Island non-federal acute-care and rehabilitation hospitals.

Patient demographic and insurance information, administrative information (admission and discharge dates, admission type and source, discharge status, and charges), and medical information (admitting diagnoses and clinical procedures, dates of procedures, and service type) are readily available.

Data extracted and analyzed for this issue brief were for adults' (age 21–64 years) ED visits with dates of services between January 1, 2006 and December 31, 2010.

Definition of interest outcome:
ED visits for non-injury related oral health conditions with oral and dental-related primary admitting diagnoses (i.e. ICD-9-CM codes of 520.0–529.9) that did not result in hospital admission.

Emergency Department (ED) visits for non-injury related oral/dental complaints in Rhode Island hospitals

From 2006-2010, the primary diagnoses for 3.2% of the 1.2 million adults' (age 21-64 years) ED visits in Rhode Island were non-injury related oral/dental problems, amounting to 39,286 unique ED encounters. Dental decay and inflammatory pulp and periapical lesions originated by tooth decay comprise 43% of the encounters with oral/dental primary diagnoses. Less specific conditions such as "unspecified disorders of the dental/supporting structure" (toothache) account for more than a third of these oral/dental primary diagnoses (Table 1).

Table 1. Non-injury related oral/dental primary diagnosis for adult's (age 21-64) ED visits in Rhode Island hospitals

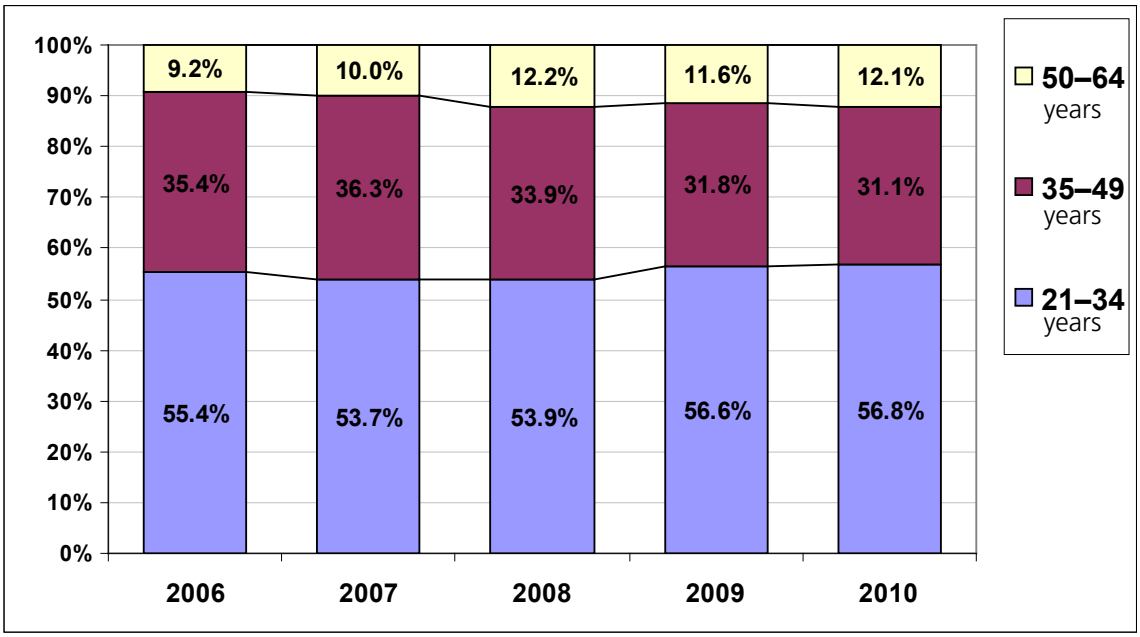
	ICD-9-CM CODE	NUMBER OF VISITS	PERCENT
Dental caries, pulpitis, and periapical lesions	521.0, 522	17,033	43.4%
Unspecified disorders of the dental/supporting structure	525.8, 525.9	13,878	35.3%
Temporomandibular Joint and jaw	524.6, 526	4,335	11.0%
Gingival and periodontal lesions	523	1,448	3.7%
Soft tissue lesions	528	1,250	3.2%
Salivary gland	527	592	1.5%
Other (including eruption, tooth development, erosion, abrasion, attrition, anomaly, atrophy, edentulism, restoration fracture, tongue lesions, etc.)	520, 521, 524.3, 524.7 524.8, 525.0-525.6, 529	750	1.9%
TOTAL		**39,286**	**100%**

Data source: Rhode Island Hospital Discharge Data, 2006-2010

Utilization of Hospital Emergency Departments (EDs) for non-injury related oral/dental conditions

Young adults (age 21–34 years) are the most frequent ED users with non-injury related oral/dental conditions as their primary diagnosis. ED visits by this age group for these conditions increased over the five year period (Figure 2).

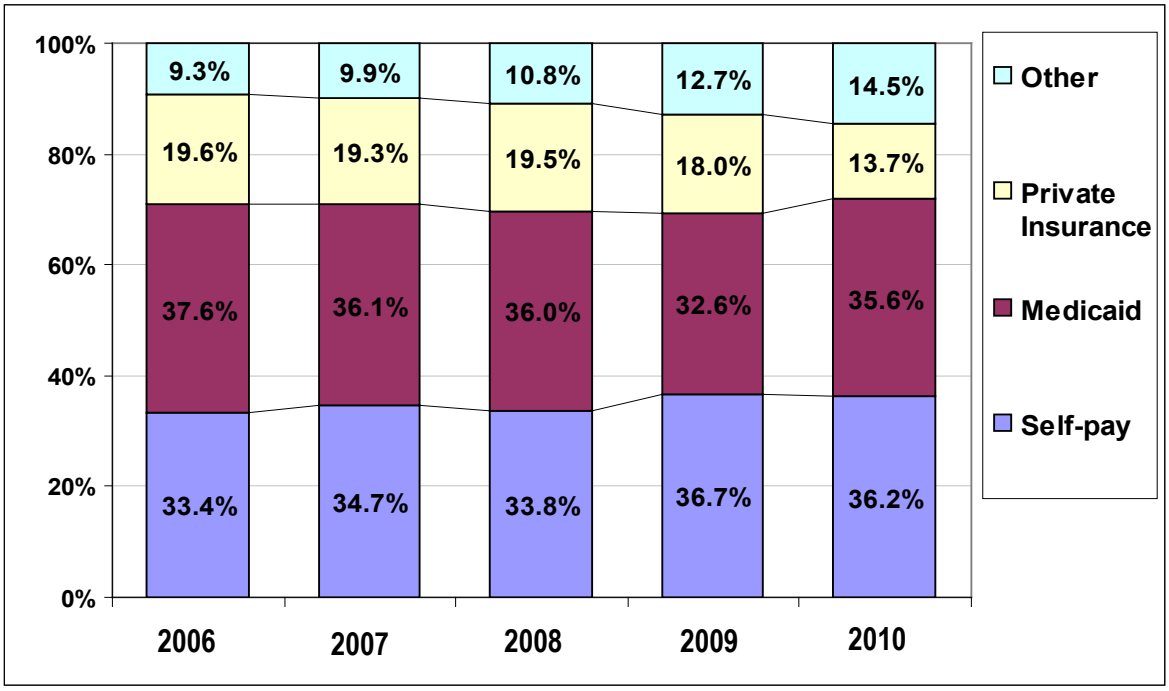
Figure 2. ED visits for non-injury related oral/dental conditions by patient's age



Data source: Rhode Island Hospital Discharge Data, 2006-2010

Medicaid and "self-pay" are the most common payment methods for non-injury related oral/dental-related ED visits and account for seven out of ten ED encounters. The visits of underinsured and uninsured adults (whose payment source is identified as "self-pay") have increased for the past five years and surpassed those covered by Medicaid in 2009 (Figure 3).

Figure 3. ED visits for non-injury related oral/dental conditions by expected payment source*



*The payment source information is based on the "expected" source of payment identified in hospital's initial billing records. Final and actual payer may change and are not necessarily the same as the "expected" payer.
Data source: Rhode island Hospital Discharge Data, 2006-2010

Oral/dental problems were more frequently reported by Medicaid-enrolled and uninsured adults. Two dental diagnoses are among the most common primary diagnoses in EDs for Medicaid-enrolled and uninsured adults, although the most common ED primary diagnoses for privately insured adults do not include any oral/dental problems (Table 2).

Table 2. Top 15 primary diagnoses for adults' (age 21-64) ED visits by patient's insurance (expected payment source)

PRIVATE INSURANCE	MEDICAID	SELF-PAY (UNINSURED)
Neck strain	Pregnancy related complication (648.93)	Alcohol abuse
Lumbago	Lumbago	Lumbago
Headache	Alcohol abuse	Neck strain
Chest pain (786.50)	Headache	**Unspecified disorder of teeth and supporting structures (525.9)**
Open wound of upper limb	**Unspecified disorder of teeth and supporting structures (525.9)**	Depressive disorder
Abdominal pain (789.09)	Abdominal pain (789.09)	Lumbar strain
Lumbar strain	Neck strain	Headache
Chest pain (786.59)	Abdominal pain (789.00)	Chest pain (786.50)
Pregnancy related complication (648.93)	Chest pain (786.50)	Acute pharyngitis
Abdominal pain (789.00)	Lumbar strain	**Dental caries (521.00)**
Ankle strain	Depressive disorder	Abdominal pain (789.09)
Syncope and collapse	Urinary tract infection	Contusion of face, scalp, and neck (except eye(s)
Acute pharyngitis	Acute pharyngitis	Abdominal pain (789.00)
Urinary tract infection	Migraine	Acute alcoholic intoxification
Dizziness, giddiness	**Dental caries (521.00)**	Open wound of finger(s)

Data source: Rhode Island Hospital Discharge Data, 2006-2010

Recommendations to reduce preventable Emergency Department (ED) visits

The persistent lack of affordable comprehensive dental coverage has left many young and low-income adults without access to a regular source of oral health care. This issue brief highlights evidence that uninsured and undersinsured adults, more often than those with private insurance, seek treatment in hospital EDs for oral health problems that may have been prevented given access to earlier preventive and routine dental care. This suggests that the accessibility and expanded scope of coverage offered by private dental insurance allows covered adults to more easily seek routine dental care.

ED use for preventable oral/dental disease is a significant public health problem. EDs provide more expensive but less comprehensive oral health care than outpatient dental offices and clinics. EDs typically offer temporary relief of pain and palliative care because they are not equipped with the resources to offer definitive treatment for oral/dental conditions. Patients must usually seek alternate follow-up care elsewhere to receive more complex dental services, resulting in delay of needed treatment.

Both the uninsured and underinsured incur substantial out-of-pocket costs for dental care delivered by the ED. The burden of uncompensated care (including charity and unpaid care) is often shifted to the insured, through higher premiums for plans or reduced benefits, and contributes to the rising cost of the overall health care system.

Even though ED's role is crucial to serve as safety net dental providers for a significant number of low income and uninsured Rhode Island adults who have limited access to oral health care, reliance on the ED for preventable, or non-emergent oral/dental conditions results in significant health care spending and increased pressure on the already overburdened hospitals, insurers, and patients throughout the state.

Along with private dental providers, community health centers, hospital dental clinics, and community-based dental programs in Rhode Island provide comprehensive, ongoing dental care, serving as the dental home for thousands of Rhode Islanders. These dental safety net providers should continuously expand their critical role to best respond to the unmet community oral health needs, particularly for the most vulnerable populations.

The Oral Health Program at the Rhode Island Department of Health supports inclusion of comprehensive dental benefits, especially expanded coverage for preventive and routine specialty dental care, in the state health care coverage expansion legislation.

Private and public dental insurance benefits should be made more affordable for all Rhode Islanders and should emphasize regular preventive oral health care.