ORAL HEALTH ACCESS IN THE STATE OF WISCONSIN: A CONTINUING ISSUE
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For a lot of us access to dental/oral care is not much of an issue. However, over 108 million Americans lack dental insurance; which is over 2.5 times the number who lack medical insurance. Oral health burdens about 53 million children and adults across the United States. Thus, many Americans seek dental care in hospital emergency rooms (ERs).

The Pew Center on the States estimates that preventable dental conditions were the primary diagnosis in 830,590 visits to ERs nationwide in 2009 - a 16 percent increase from 2006. For many children of low-income families, emergency rooms are the first and last resort because it is a struggle to find a dentist who either practices in their area or accepts Medicaid patients. CMS projects that the total national expenditures for dental care will almost triple between 2000 and 2020 (from $62.0 billion in 2000 to $167.9 billion in 2020, a 271% increase) and we are currently on par with meeting these predicted numbers.

Tooth decay is the single most common childhood disease, five times more common than asthma. Cancer of the oral cavity and oropharynx constitutes approximately 3% of total malignancies. The National Cancer Institute estimates that 41,380 men and women in US will be diagnosed with oral cancer in 2013. CDC reported that about 47% of US adults aged 30 years and older have periodontitis.

In a recent report by The Pew Charitable Trusts, two categories of dentist shortages were identified for children’s access to oral care.

1. Uneven distribution of dentists nation-wide
2. Relatively small number of dentists who accept Medicaid (14 million children enrolled in Medicaid did not receive any dental service in 2011)
About 9.2% of the Wisconsin residents are underserved and live in dentist shortage areas. A growing concern is that close to 45% of the dentists in Wisconsin are nearing retirement. To add to these current issues, Wisconsin ranks number two among all the states in US where low-income children are least likely to receive dental and oral care. In 2011, 71.5% of Medicaid-enrolled children did not receive a dental visit in the state of Wisconsin. There are about 15,000 six year-olds are sitting in classrooms throughout the State of Wisconsin with active dental decay and painful mouths. The CDC estimates that in the US approximately 40% of the children have caries by the time they enter kindergarten, more than 50% have caries by second grade and 80% have caries by the time they graduate high school.

Marshfield Clinic and Family Health Center of Marshfield, Inc. has been striving to solve the dental and oral health access problem since 2002 by strategically opening dental centers in the underserved areas in Wisconsin. As a result of this effort, some of counties in our service areas, like Chippewa [41.7%], Rusk [48.4%] and Price [56.9%, have been on par with the top states in the country for providing access to dental care to our children. Cumulatively, this has led to a noticeable increase in the State’s access rates from 25.6% [2008] to 28.5% [2011] which the Executive Director of FHC, Mr. Greg Nycz calls “The Marshfield Effect”. However, we have a long journey ahead of us.

References
2. A Costly Dental Destination: Hospital Care Means States Pay Dearly; February 28, 2013
3. Centers for Medicare and Medicaid Services (CMS)
4. American Academy of Pediatric Dentistry
8. In search of Dental Care: Two Types of Dentist Shortages Limit Children’s Access to Care; June 23, 2013
9. County Health Rankings & Roadmaps: Data Sources and Measures
10. CMS-416 Report, Annual EPSDT Participation

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Abstract
An oral health surveillance platform that queries a clinical/administrative data warehouse was applied to estimate regional prevalence of periodontitis. Cross-sectional analysis of electronic health record data collected between January 1, 2006, and December 31, 2010, was undertaken in a population sample residing in Ladysmith, Wisconsin.

Eligibility criteria included: 1) residence in defined zip codes, 2) age 25–64 years, and 3) ≥1 Marshfield dental clinic comprehensive examination. Prevalence was established using two independent methods: 1) via an algorithm that considered clinical attachment loss and probe depth and 2) via standardized Current Dental Terminology (CDT) codes related to periodontal treatment. Prevalence estimates were age-standardized to 2000 US Census estimates.

Inclusion criteria were met by 2,056 persons. On the basis of the American Academy of Periodontology/Centers for Disease Control and Prevention method, the age-standardized prevalence of moderate or severe periodontitis (combined) was 407 per 1,000 males and 308 per 1,000 females (348/1,000 males and 269/1,000 females using the CDT code method). Increased prevalence and severity of periodontitis was noted with increasing age.

Local prevalence of periodontitis was consistent with national estimates. The need to address potential sample selection bias in future electronic health record–based periodontitis research was identified by this approach.

Methods outlined herein may be applied to refine oral health surveillance systems, inform dental epidemiologic methods, and evaluate interventional outcomes.

A full version of this publication can be found at the American Journal of Epidemiology’s website at: http://aje.oxfordjournals.org/cgi/content/full/kws293?ijkey=rBb3vz1fwYMuFzT&keytype=ref

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Dr. VanWormer earned a PhD in behavioral epidemiology at the University of Minnesota and has focused his research in the primary prevention of cardiometabolic disease, with particular emphases on community-level risk factor surveillance and lifestyle interventions. He has led and assisted with several evidence-based medicine and health disparities projects focused on aspirin and statin use, periodontitis and oral hygiene, and influenza vaccination, among others.

Dr. VanWormer is also an investigator member in the national HMO Research Network and Wisconsin’s Institute for Clinical and Translational Research, as well as an Associate Editor for the scientific journal Diabetes Spectrum.

PRESENTATIONS

- Acharya A, ‘Computation and Informatics in Dentistry: A specialized area of research focus”, University of Minnesota, School of Dentistry Leadership Team, Marshfield, WI, May 13, 2013
- Acharya A, DI Team, ‘Dental Informatics Project Updates’, Dr. Bob Steiner, Executive Director MCRF, Marshfield Clinic, Marshfield, WI, July 15, 2013

PUBLICATIONS


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