



ORAL HEALTH COALITION  
OF DANE COUNTY

THE HEALTH OF DANE COUNTY  
**The Oral Health Crisis**

May, 2012



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## ACKNOWLEDGEMENTS

This report was produced by Public Health Madison & Dane County (PHMDC), as part their community health assessment process and as an objective of the Oral Health Coalition of Dane County.

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  - » St. Mary’s Hospital-Madison
  - » University of Wisconsin Hospital and Clinics
  - » Group Health Cooperative of South Central Wisconsin
  - » Dean Clinic
  - » UW Medical Foundation
- Dane County Oral Health Providers, whose programs are listed in the report.
- Oral Health Coalition of Dane County members

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## EXECUTIVE SUMMARY

Oral health is critical to overall health for all of our citizens. Associations have been found between oral infections and diabetes, heart disease, stroke and low-birth weight babies. For children, oral health issues can interfere with school success, nutrition, speech and social relationships. Tooth decay is one of the most prevalent, and most preventable, diseases to affect children and adults. The use of dental sealants, drinking fluoridated water, using toothpaste with fluoride, limiting sugar intake, and having access to dental care all assist in the prevention of oral diseases.

Unfortunately, Dane County does not differ from many communities across the United States regarding the burden of oral diseases. Based on research conducted by The Pew Center on the States in 2012 [**A Costly Dental Destination: Hospital Care Means States Pay Dearly**, February Issue Brief], there was a 16% increase from 2006 to 2009 in the percentage of ER visits across the United States in which preventable dental conditions were the primary diagnosis.

In 2010, Public Health Madison and Dane County initiated a study of the dental health status of our community, in partnership with the Oral Health Coalition of Dane County. Formed in 2008, the Oral Health Coalition of Dane County is a multi-organizational, grass-roots effort charged with the mission to “improve oral health through prevention, education, and increased access to dental care for community members of all ages in Dane County”. Following the launch of the Coalition, the Data Committee initiated discussions among providers in Dane County, collected data for both adults and children and assisted with surveying older adults. Information from this report will be used to continue critical discussions across the county with many partners and to develop policy recommendations designed to improve oral health and reduce the burden of disease.

### *Key Findings*

- In the past three years, more Dane County residents sought relief from dental pain, a preventable issue, in local emergency departments (ED) than in the past. This is a costly burden, not only in health care dollars, but further strains our already overwhelmed hospital emergency departments.
- In 2010, more than 11,000 visits were made to Dane County emergency departments, urgent care centers and primary care clinics for dental pain. For Dane County ED dental visits alone, the total charges were more than \$1.6 million. This is an expensive, inefficient and inappropriate use of resources that provides only palliative care (pain relief).
- Many patients return to the hospital emergency department (28%) and urgent care center (21%) for dental pain because the treatment they received only addressed pain or other symptoms—not the underlying oral health problem. This is reflected in national trends. [PEW February Issue Brief, “**A Costly Dental Destination: Hospital Care Means States Pay Dearly**”.]
- The most frequent ED oral health diagnosis for Dane County residents was for infection, while the most frequent age group to visit the ED was 25-34 year-olds. Blacks/African Americans reported to the ED for dental pain at a rate much higher than whites, Hispanics or other racial groups.
- For children enrolled in Wisconsin Head Start (3-5 years of age), 36% had dental caries experience, 26% had untreated decay and 27% had early or urgent treatment needs at the time of screening.
- A screening of Wisconsin third grade students found 55% had dental caries experience, 20% had untreated decay and 20% had early or urgent treatment needs.
- The rates of Dane County students (middle & high school) being absent from school due to tooth or gum pain were higher among students of color (18-29%) than white (10%) students. The rates were highest among African American (29%) and Hmong (26%) populations (Dane County Youth Assessment).
- For a select group of over 700 Dane County adults, aged 60 years and older who were surveyed, nearly one-fourth self-reported that they had oral health problems making it difficult to eat, and almost one-third have had all their teeth removed. 40% reported that they had not been to a dentist in the past year, often because of their inability to afford care.

We are indebted to the many organizations and health care groups that came together to provide the data for this report.

## DISEASE BURDEN

Good oral health is critical to general health and should be included in the whole picture when analyzing the health status of the population. Untreated tooth decay (dental caries) and gum disease are linked to chronic conditions like heart disease, stroke, diabetes (complicates blood sugar control) and other serious health problems such as premature births and failure to thrive. In some cases infection can lead to sepsis (blood infection) or even death. Pain and suffering due to tooth decay can and does result in loss of time from work and school.

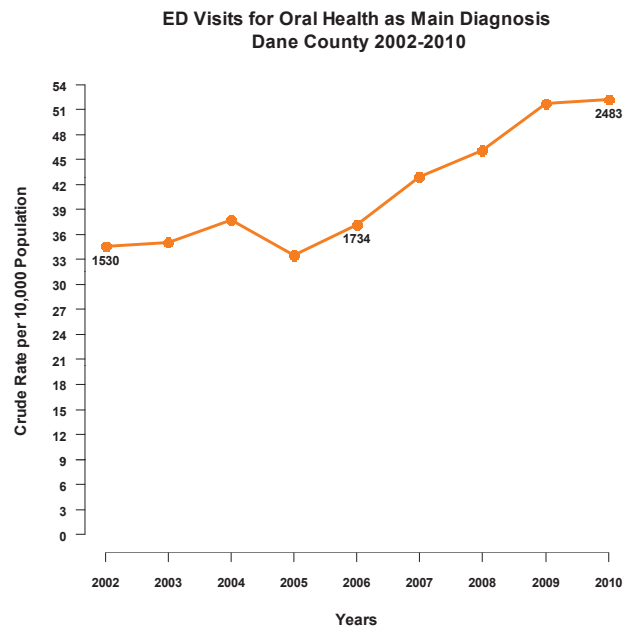
*This report summarizes the most current information available on oral health in Dane County. However, in some cases state data is given because either the county data is not available or the numbers are too small for meaningful analysis. The data comes from a variety of sources that are referenced in each of the sections.*

### Emergency Room, Urgent Care Center, Primary Care Clinic Data

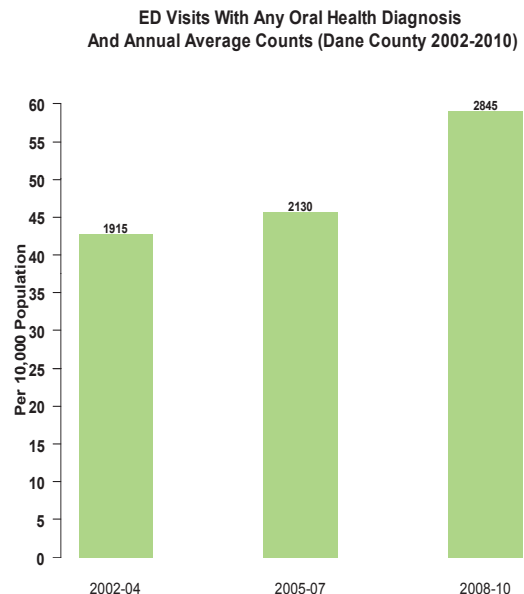
#### Dane County Residents that Visit Wisconsin Hospital Emergency Rooms for Dental Pain

*The following information indicates all Dane County residents that report to any Wisconsin hospital Emergency Department with a dental condition as the main diagnosis. The rates are a percentage of the Dane County population. Most of the data is for 2006-2010, unless otherwise indicated.*

- There has been an increase in the number of people, from Dane County, visiting the hospital emergency departments (EDs) for dental pain over the past decade. Hospital EDs' are not equipped or staffed to provide dental treatment other than palliative care (pain relief). *See chart.*



- The most notable increase has occurred in the past three years (2008-2010). In 2010, there were almost 2,500 ED dental visits. *See chart.*

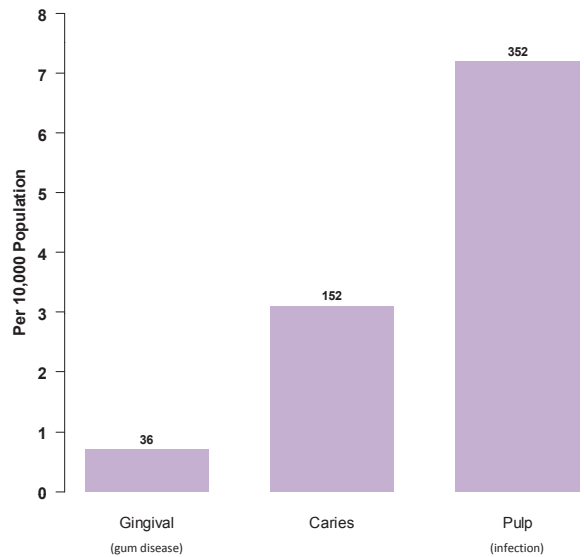


- In 2010, most of the dental ED visits could have been prevented. In particular, focus will be on infection, dental caries (tooth decay) and gum disease because they are most prevalent. Of these 3 diagnoses, ED visits for infection were the most common. The prevalence of infection, decay and gum disease may be under reported due to hospital coding issues. *See chart.*
- Infection is 6.8 times more likely to be found in a patient with erupting wisdom teeth than a patient without the condition.

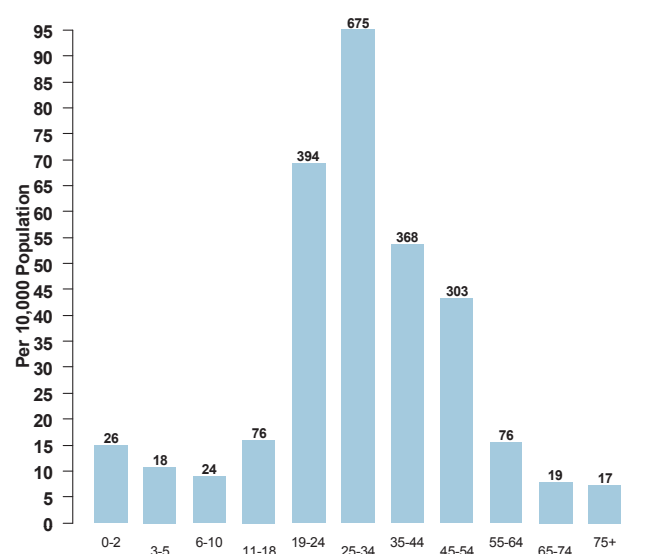
- For those visiting the hospital ED for dental pain, the rates are highest for those 25-34 years old, followed by those 19-24, 35-44 and 45-54. *See chart.*

- The prevalence rates for those visiting the hospital ED for dental pain are much higher in blacks/African Americans (38.2 per 10,000) than for whites, Hispanics or other racial groups (6.9, 5.8, 10.4 per 10,000 respectively). *See chart.*
- When comparing gender for those who visit the hospital ED for a dental-related diagnosis, the rates are relatively the same for males and females.

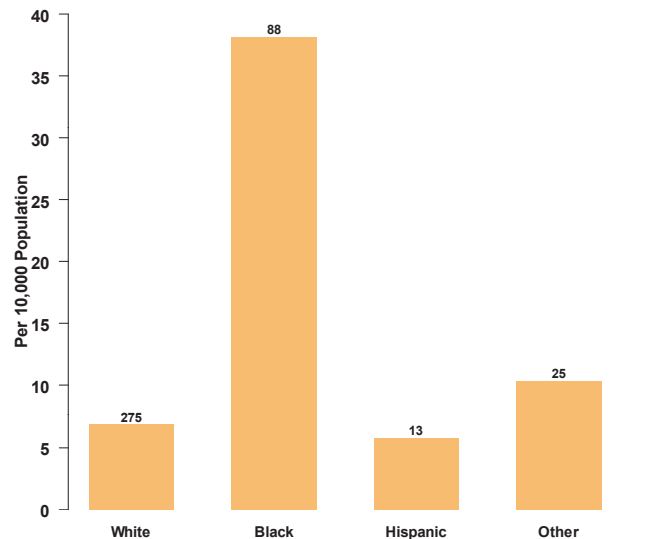
**ED Visits for Selected Oral Diseases as Main Diagnosis  
Dane County 2010**



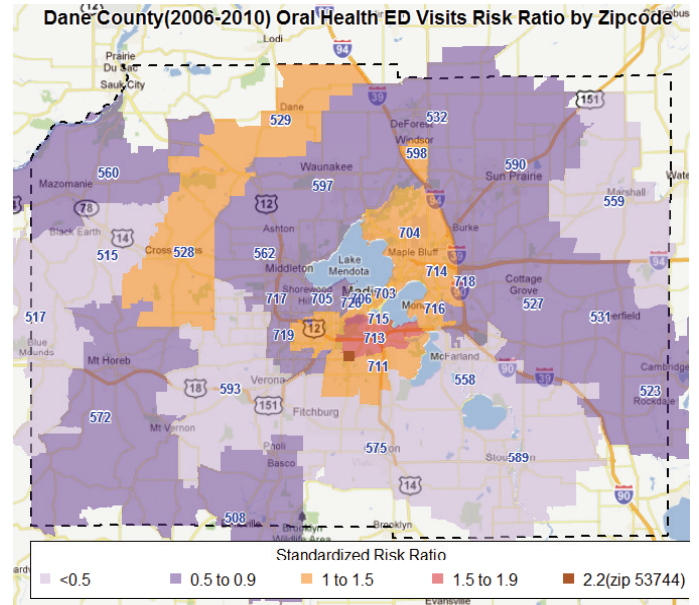
**ED Visits for Oral Health as Main Diagnosis  
By Age and Average Annual Counts Dane County 2005-09**



**ED Visits for Oral Health as Main Diagnosis  
By Race and Average Annual Counts Dane County 2005-09**

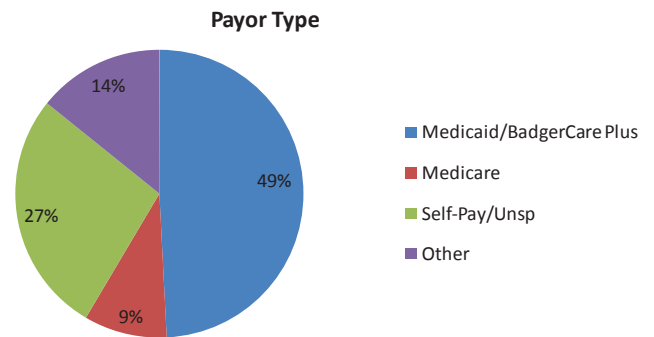


- Although people that report to hospital EDs for dental pain are from across Dane County, the rates in some communities (identified by zip code) are higher than expected (Dane County overall). Most notably, South Madison, followed by North and East Madison, Monona, Waunakee, Cross Plains and Village of Dane. *See map.*



- In 2010, the 2,549 ED dental visits resulted in more than \$1.6 million in total charges, which included 49.2% (1,254) Medicaid/Badger Plus, 9.3% (238) Medicare and 27.3% (695) self-pay or uninsured patients. *See chart.*

**Emergency Departments Visits for Oral Health by Payor Type  
Dane County, 2010**



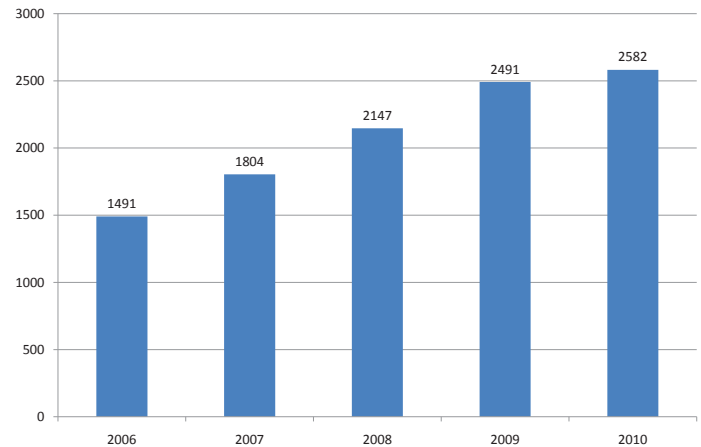
It is important to note that most of the emergency room visits for dental pain were a result of non-traumatic dental disease that could have potentially been avoided.

## People Visiting Dane County Hospital Emergency Rooms for Dental Pain

The following information is for all patients that visited 3 Dane County Hospital Emergency Departments (Meriter, St. Mary's and UW Hospitals). Although the majority of patients are from Dane County (89%), some people come from other locations in Wisconsin (9%) or out of state (3%). The numbers reported are for the years 2006-2010. The data gives us an indication of the impact dental issues have on Dane County hospitals.

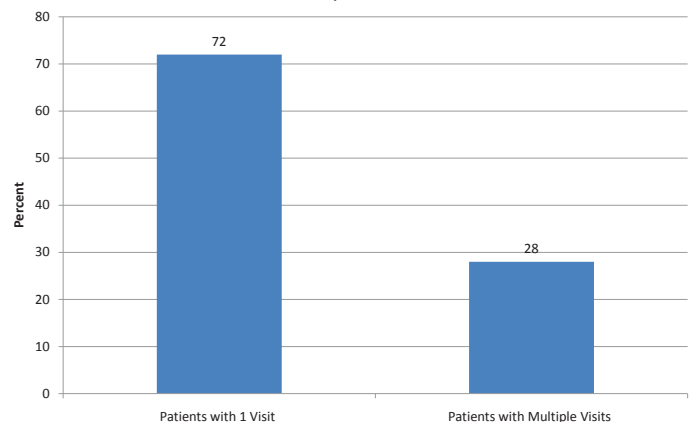
- The numbers for ED dental visits in 3 Dane County hospitals have significantly increased in the past 5 years by an average annual percent change (AAPC) of 6.2%. See chart.
- At 2 EDs, 2.4 per 10,000 of the all ED visits were dental related.
- The largest numbers of dental ED visits are for adults.
- At one ED, 25-34 and 19-24 year olds had the greatest proportion of dental visits per total of all ED visits (4.4 and 3.7 per 10,000, respectively).

Hospital ED Visits for Oral Health Diagnosis  
Dane County EDs, 2006-2010



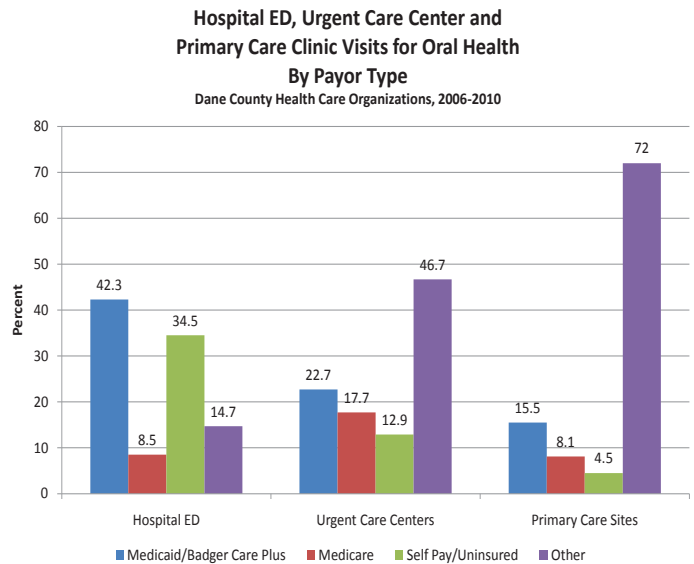
- In one Dane County hospital ED, 28% of the patients returned with dental problems. When patients are unable to find or afford follow-up dental treatment, their options are limited and they often seek care at the hospital emergency department. See chart.

Hospital ED Patients with Oral Health Diagnosis  
One Visit and Repeat Visits  
Dane County EDs, 2006-2010





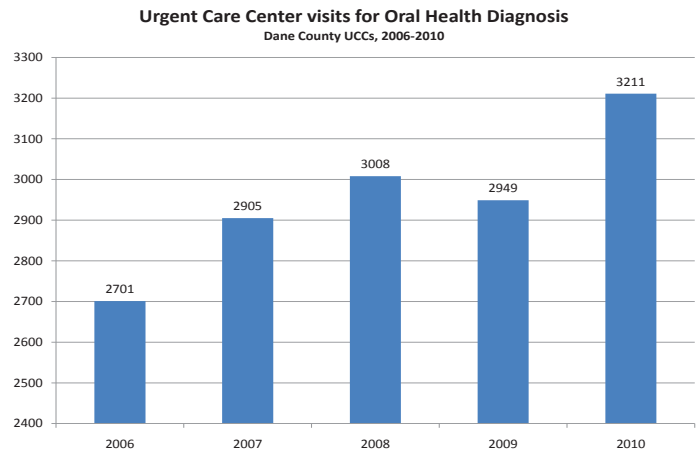
- 42.3% of the dental visits were MA/BadgerCare Plus enrollees and 34.5% were uninsured at one DC Hospital ED. *See chart.*



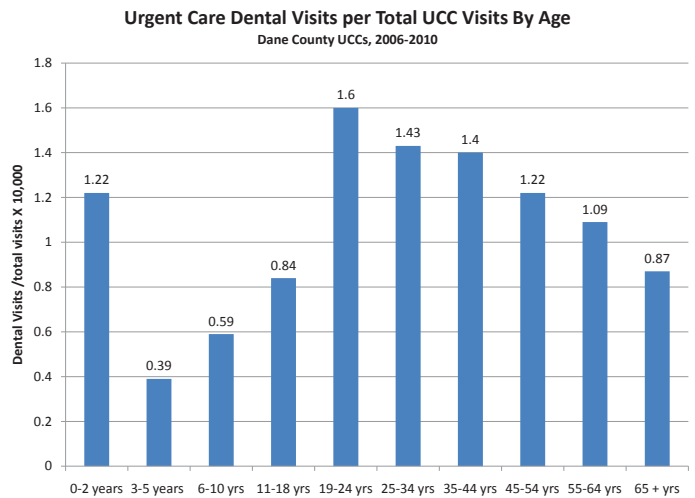
### People Visiting Dane County Urgent Care Centers for Dental Pain

*The following information is for all patients that visited Urgent Care Centers (UCC) of 3 Dane County Health Care Organizations (Group Health Cooperative, Dean and UW Medical Foundation). 82% of these patients are from Dane County. The numbers reported are for the years 2006-2010.*

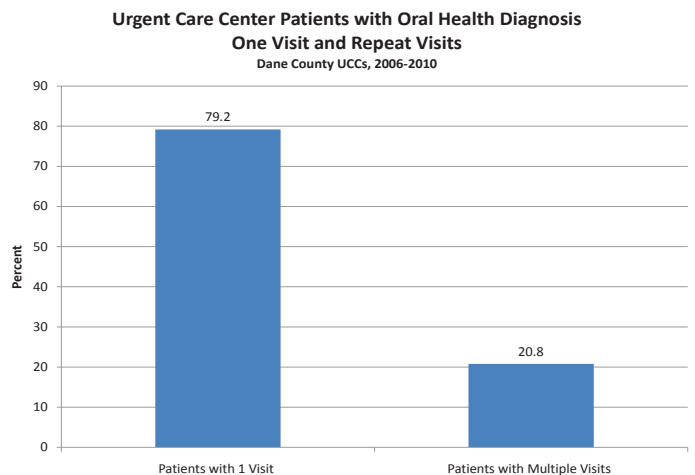
- The numbers of visits for dental pain to Dane County Urgent Care Centers have significantly increased over the past 5 years by average annual percent change of 3.7%. *See chart.*



- At one Dane County UCC, 1.1 per 10,000 of all UCC visits were dental visits, with the highest rate for those 19-24 years of age. *See chart.*
- The largest number of patients that visit the urgent care centers for dental pain (all dental diagnoses) are adults. *See chart.*
- Of the three preventable dental diagnoses of infection, caries and gum disease, the highest numbers are for infection, and most urgent care centers are not equipped or staffed to provide dental treatment.



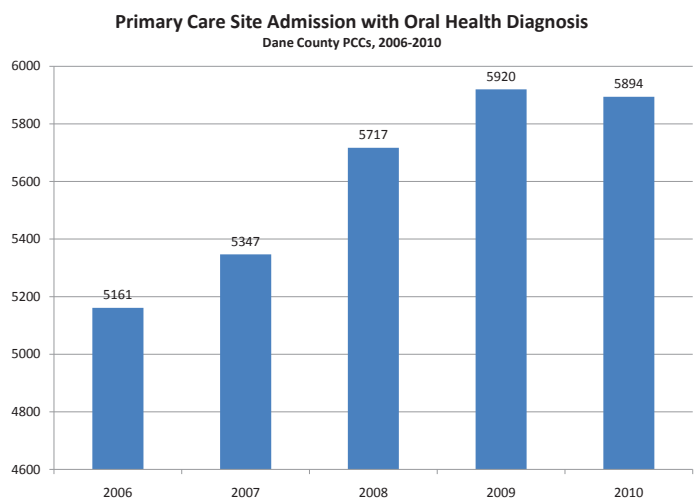
- In one Dane County UCC, 20.7 % (202 people per year) of the patients that visit the urgent care center for dental pain, return to the urgent care center. *See chart.*
- 22.8% of the dental visits were MA/BadgerCare Plus enrollees and 12.9% were uninsured at one DC UCC. *See chart on previous page.* The number of patients who were MA/BCP enrollees that went to the UCC for dental pain increased over the past 5 years (17.8% - 2006; 28.0% - 2010).



### People Visiting Dane County Primary Care Clinics for Dental Pain

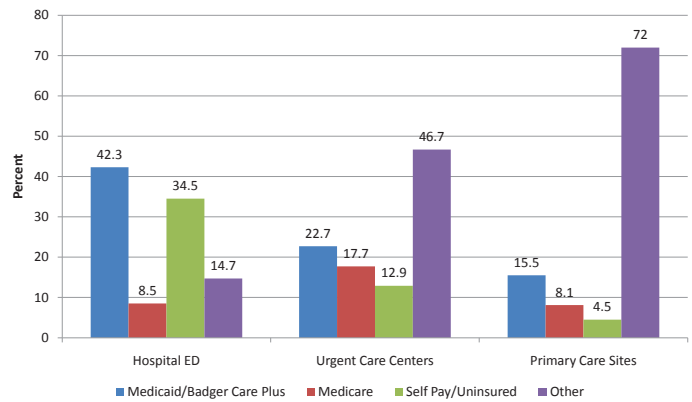
*The information provided is for patients that visited Primary Care Clinics (PCC) of 5 Dane County Health Care Organizations (Group Health Cooperative, Dean and UW Medical Foundation, Meriter Clinics and UW Hospital Primary Care Clinics). This does not include patients that attend specialty clinics within these organizations. The numbers are for years 2006-2010.*

- There has been an increase in the number of visits to primary care clinics for dental diagnosis in the past 5 years. *See chart.*



- The largest number of visits to primary care clinics for dental issues are adults.
- 15.5% of the dental visits were MA/BadgerCare Plus enrollees and 4.5% were uninsured at one Dane County Primary Care Clinic. *See chart.*

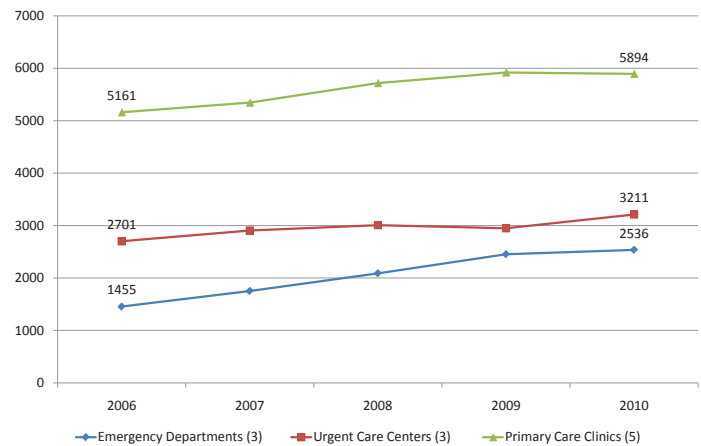
**Hospital ED, Urgent Care Center and Primary Care Clinic Visits for Oral Health  
By Payor Type**  
Dane County Health Care Organizations, 2006-2010



There is an increasing trend of dental visits to Dane County Emergency Departments, Urgent Care Centers and Primary Care Clinics for dental pain in the past 5 years. In 2010, there were over 11,000 visits, where only palliative care was provided (pain medications for untreated cavities and/or antibiotics for infection). This is often an inappropriate and inefficient use of hospital and clinic's limited resources.

The fact that many people are turning to hospitals, urgent care centers and primary care clinics to address oral health needs indicates that systems of dental care are failing to reach many people who are in need. *See chart.*

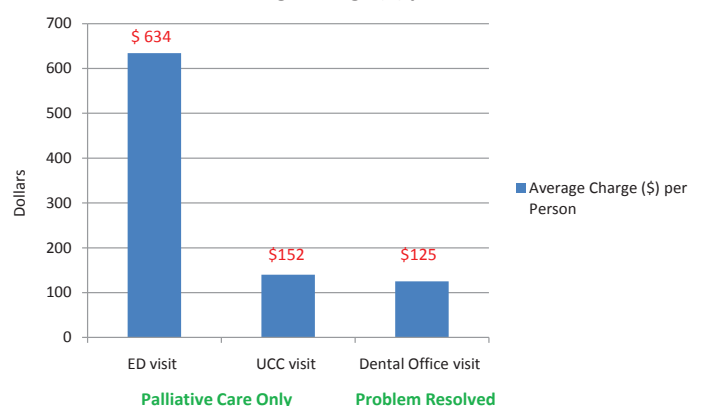
**Oral Health Visits to Dane County Emergency Departments (ED), Urgent Care Centers (UCC) & Primary Care Clinics (PCC)**



It is also costly to go to the emergency department or urgent care center (palliative treatment only) for dental care, compared to going to the dentist office, where the problem can be resolved. *See chart.*

This high cost impacts the hospitals, clinics and taxpayers also because the number of Medicaid participants (state funded program) using these facilities are increasing, especially at hospital emergency departments.

**Charges for "Dental" Care in Different Settings  
Average Charge (\$) per Person**



### Dental Health Status of Children

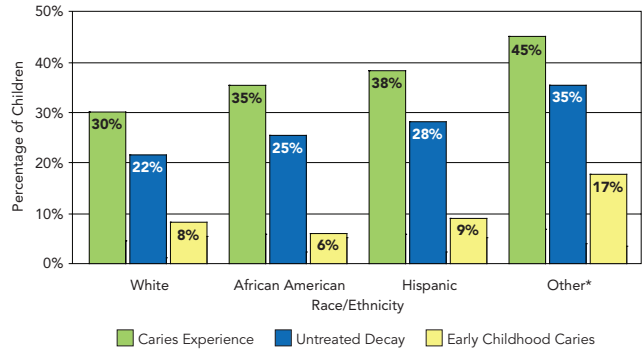
Nationally, dental caries (tooth decay) in children is four times more common than childhood asthma. Dental pain in children can result in impaired speech development, inability to eat, failure to thrive, sleep deprivation, inability to concentrate and absence from school.

Wisconsin: Using the Association of State and Territorial Dental Directors Basic Screening Survey protocols, a screening was conducted on Wisconsin Head Start children (3-5 years) in the 2008-09 school year and a screening was also conducted among third grade students (regardless of insurance status) in Wisconsin public schools in the 2007-08 school year. Disease prevalence was measured by caries experience (evidence of past decay-filling or untreated decay), untreated decay (unfilled cavities) and whether **early** (no signs or symptoms of pain or infection) or **urgent** (signs of pain or infection) treatment was needed at screening.

Highlights from these surveys include:

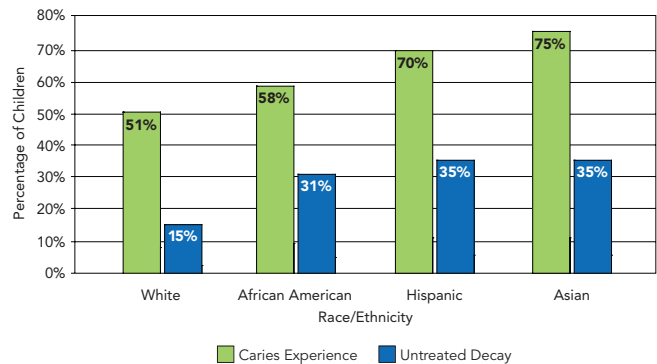
- For the Head Start children, 36% had caries experience, 26% had untreated decay and 27% had early or urgent treatment needs at the time of screening.
- For the 3rd grade children, 55% had caries experience, 20% had untreated decay and 20% had early or urgent treatment needs at the time of screening.
- Non-Hispanic white children (Head Start and 3rd grade) were less likely to have had caries experience and untreated tooth decay than African American, Hispanic and children of other racial and ethnic groups. *See charts.*

**Percentage of Wisconsin's Head Start Children with Caries Experience, Untreated Decay and Early Childhood Caries by Race/Ethnicity, 2008-09**



\* Other includes: American Indian/Alaska Native, Native Hawaiian/Pacific Islander, multi-racial and missing/unknown  
 Source: Wisconsin Department of Health Services, Healthy Smiles for a Healthy Head Start  
 Figure VI, p. 14 - <http://www.dhs.wisconsin.gov/publications/P0/P00209.pdf>

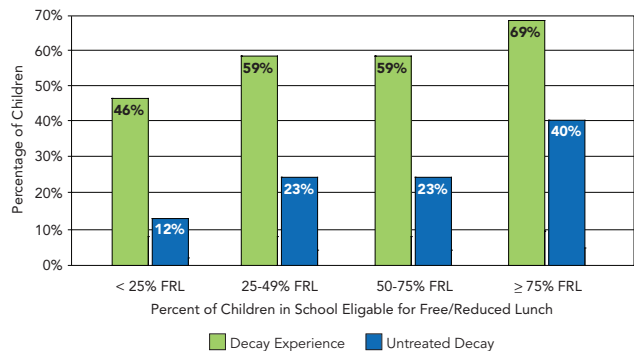
**Percentage of Wisconsin's Third Grade Children with Caries Experience and Untreated Decay by Race/Ethnicity 2007-08**



Source: Wisconsin Department of Health Services, Make Your Smile Count  
 Figure VII, p. 15 - <http://www.dhs.wisconsin.gov/publications/P0/P00209.pdf>

- 3rd grade children from low-income families (children who are eligible for the free or reduced meal programs at school) were more likely to have had caries experience and untreated tooth decay compared to higher income families. *See chart.*

**Percentage of Wisconsin's Third Grade Children with Decay Experience and Untreated Decay, by Free/Reduced Lunch (FRL) Status, 2007-08**



Source: Wisconsin Department of Health Services, Make Your Smile Count  
 Figure XV, p. 30 - <http://www.dhs.wisconsin.gov/publications/P0/P00209.pdf>

The Wisconsin survey data listed above and the coinciding charts, along with more extensive Wisconsin data, are available from "The Burden of Oral Disease in Wisconsin, 2010" located at: [www.dhs.wisconsin.gov/publications/P0/P00209.pdf](http://www.dhs.wisconsin.gov/publications/P0/P00209.pdf)

Dane County: To get a snapshot of the local picture of Dane County children, there are 2 county-wide programs where a number of children were screened and dental needs were identified:

#### Celebrate Smiles:

All K- 5th grade students in selected Dane County schools were screened. Schools chosen for the program are those with a high percentage of children eligible for free & reduced meal programs. This program provides dental services through Access Community Health Center, in partnership with American Family Children's Hospital, Ronald McDonald House Charities of Madison, Madison Metropolitan School District and other Dane County School Districts, Meriter Health Services, and Public Health Madison & Dane County.

- In 2010-11 school year, K-5 students in 9 schools were screened. Out of 3,541 children screened, 18.8% (667) were identified with decay, 5% (169) had urgent decay (urgent treatment is needed).
- In 2011-12 school year, all K-5th graders were screened in 17 schools (as of 2/2012). Of the 5,571 children screened, 14.1% (787) were identified with decay, 71 (1.3%) had urgent decay. One factor in the decrease in decay rate from the previous year may be due to students already having received dental sealants.

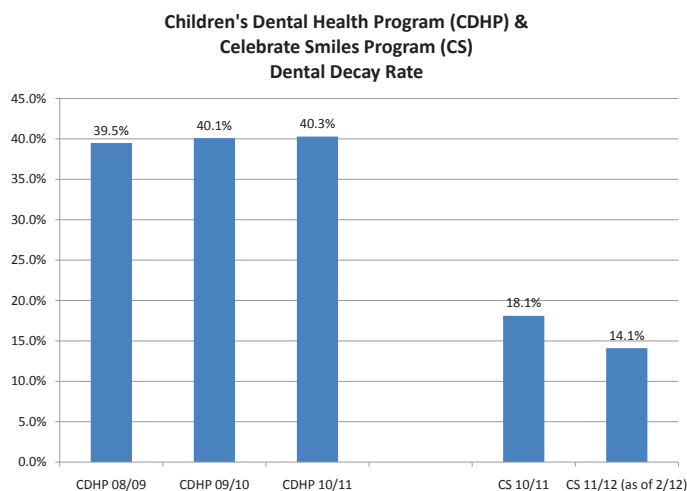
#### Children's Dental Health Program:

This is a dental program for uninsured Dane County children, aged 4-18 years. The program is a partnership of Public Health Madison & Dane County with Madison College's Dental Hygiene Program.

- In the past 3 years, there was an average of 146 children a year who received dental services, with an average decay rate of 40%. *See chart.*
- Seventy eight percent of children in the program are Hispanic, which reflects the state data that children in minority groups have higher rates of dental decay.

Madison Metropolitan School District also collected oral health data:

- Out of 24,000 students enrolled in the 2010/11 school year, it was reported that 167 students went to the school health office due to dental pain, 164 reports of dental caries, 19 students with abscesses, and 388 students with dental injuries. It is likely that there may many other cases of dental problems that were never reported.



## Dental Health Status of a Select Group of Dane County Residents

Public Health Madison & Dane County receives phone calls from the public (for children and adults) that have dental pain and are not able to access dental care. They are either uninsured (no dental insurance), under-insured or have Medicaid/Badger Care Plus and are not able to find a dentist willing or able to provide care. Some dental providers who accept Medicaid/Badger Care Plus may not take on additional patients. Many of these people contact Public Health for help, and may be referred to community dental partners such as Access Community Health Center Dental Clinic, Max W. Pohle Dental Clinic, and other appropriated Dane County dental providers.

In 2008 and 2009, information concerning phone calls for dental help were tracked as to their place of residence:

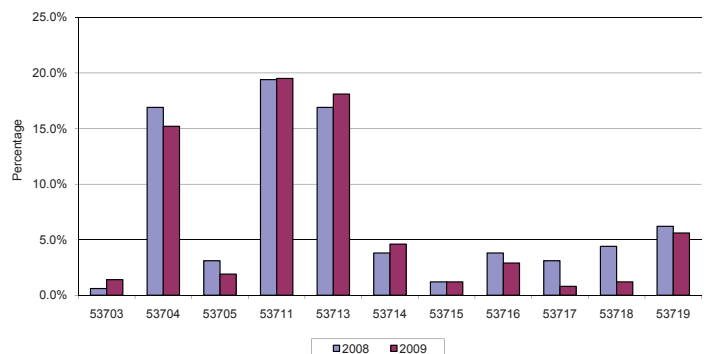
- In 2008 there were 160 people referred and 79% of the calls were from those residing in Madison and 21% from outlying Dane County communities.
- In 2009 there were 481 people referred and 73% of the calls were for those residing in Madison and 27% were from outlying Dane County Communities.
- For both 2008 and 2009, the highest number of calls came from Madison and were people residing in the 53711, 53704 and 53713 zip code areas. *See chart.*
- For both 2008 and 2009, the highest number of calls that came from those in outlying Dane County communities were from people who reside in Sun Prairie and Stoughton. *See chart.*

Access Community Health Center has now opened a dental clinic in Sun Prairie to address the high needs identified in this community.

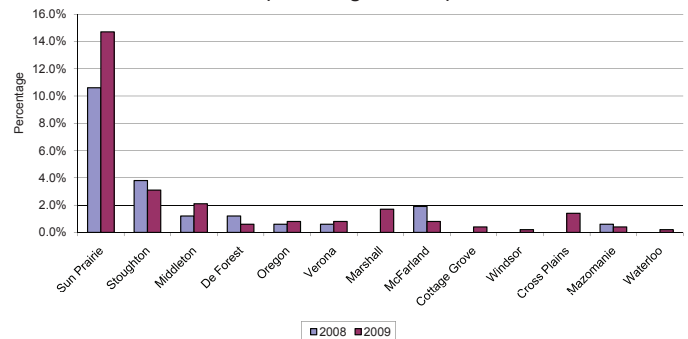
In 2011, Access Community Health Center Dental Clinics provided dental care to a number of people in Dane County that are uninsured or have MA/Badger Plus.

- There were a total of 9,671 patients that received dental care at an Access Community Health Center Dental Clinic in Dane County:
  - » 6,384 at William T. Evjue Clinic (East Madison)
  - » 2,139 at Sun Prairie clinic
  - » 1,148 children were treated as part of Celebrate Smiles
- Three quarters of the Access Community Health Center Dental Clinic patients were on Medicaid/BadgerCare Plus and 25% of the patients were uninsured.
- The majority of these patients were adults (60% - 6,530), with the highest number between the ages of 18 and 45.

PHMDC Referrals to ACHC Dental Clinic - City of Madison



PHMDC Referrals to ACHC Dental Clinic - Dane County (excluding Madison)



In a 2008 Wisconsin Division of Public Health conducted an oral health assessment of homeless shelter residents in two area (Dane County) shelters. This data was collected using a convenience sample and may not be representative of the entire homeless population.

- Adults:
  - » 31% hadn't seen a dentist in over 5 years
  - » 24% were seen at a hospital ED in the past 12 months
  - » 21 % had tooth pain, with 70% reporting that the pain was interfering with daily activities
  - » 92% had untreated caries (cavities); 50% had urgent treatment needs
  - » 90% presented with periodontal risk factors (gum disease)
  
- Children:
  - » 57% were seen by a dentist within the last 2 years
  - » 37% had never see a dentist
  - » 11% were seen at a hospital ED in the last year
  - » 3% report that the pain was interfering with daily activities
  - » 29 % had untreated caries (cavities); 6% had urgent treatment needs
  - » 3% presented with Early Childhood Caries (ECC) (children ages 2- 6 yrs)
  - » Only 6% had evidence of sealants

### Self-Reported Survey Data Concerning Oral Health

#### Dane County Adolescents

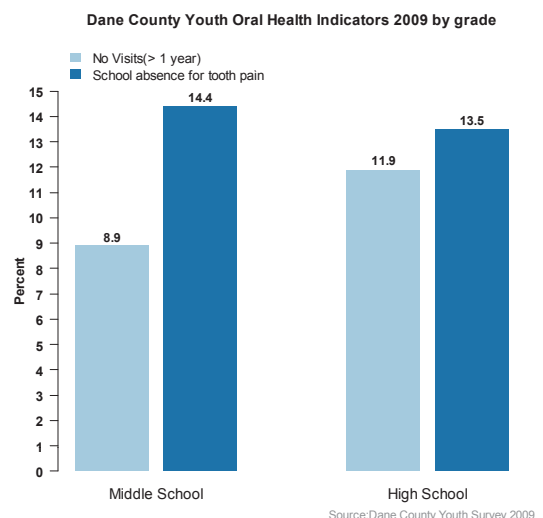
The Dane County Youth Assessment (DCYA) is a self-reported survey conducted with students in Dane County Middle (7th & 8th grade) and High (9th- 12th grades) schools. The latest survey was conducted in 2009.

To assess oral health, two questions were asked:

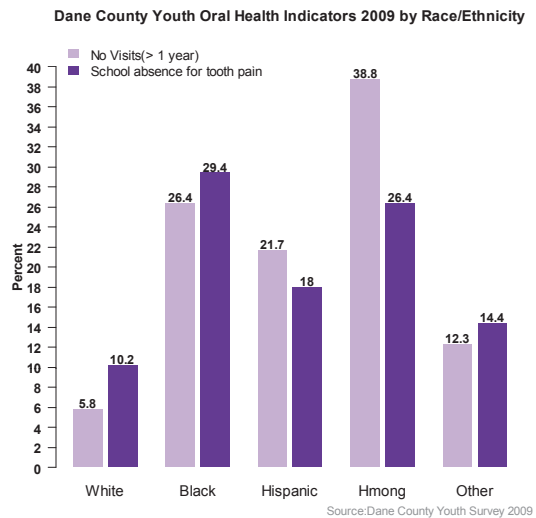
1. When was the last time you were seen by a dentist?
2. How often have you missed school because of pain in teeth or gums?

The results are as follows:

- 14.4% (1,060) of Middle School students and 13.5% (2,235) of High School students reported that they had been absent from school in the past year due to tooth or gum pain. *See chart.*
- The rates of students (middle & high school) being absent from school due to tooth or gum pain were higher among students of color than white students (10%). The highest rates were highest among African American (29%) and Hmong (26%) students. *See chart.*
- 8.9% (649) of Middle School students and 11.9% (1,962) of High School students reported that they had not visited a dentist in over 12 months. *See chart.*



- The rates for students (middle & high school) not visiting the dentist for more than a year are higher among students of color than that of whites (6%). The rates are highest in Hmong (39 %) students, followed by African American (26%) and Hispanic (22%) students. *See chart.*



## Adults

**Wisconsin:** The Wisconsin Behavioral Risk Factor Survey (BRFS) is a telephone survey of state residents aged 18 years or older, analyzed by the Wisconsin Department of Health Services. This is in conjunction with a national survey that is conducted in each state annually, but only includes oral health questions every other year.

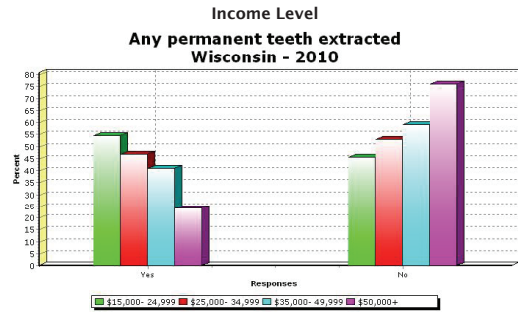
The questions that were asked pertaining to oral health status are as follows:

1. How many of your permanent teeth have been removed because of tooth decay or gum disease?
2. How long has it been since you last visited a dentist or dental clinic for any reason?

In the 2010 BRFS, 40% of Wisconsin adults had permanent teeth removed due to decay or gum disease. Those with permanent teeth removed differed for age, income level and education.

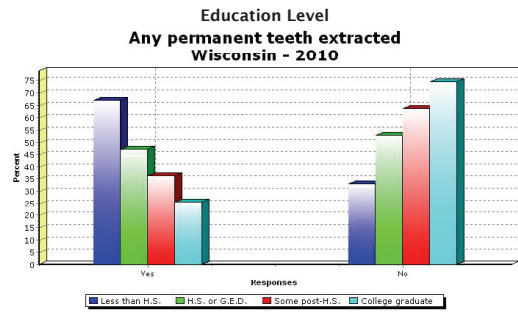


- Those in lower income groups are more likely to have had permanent teeth removed than those of higher income levels. Those that made \$15,000 – 24,999 that year were more than twice as likely to have had teeth removed than those whose income was over \$50,000. *See chart.*



<http://apps.nccd.cdc.gov/brfss/income.asp?cat=OH&yr=2010&qkey=6607&state=WI>

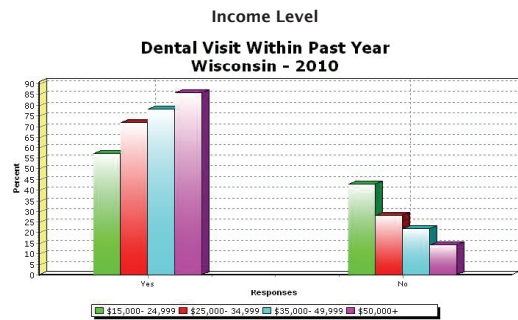
- Those that are more educated are less likely to have had permanent teeth removed than those with less than a high school diploma. (College graduates – 26%; those with less than high school diploma – 67%.) *See chart.*



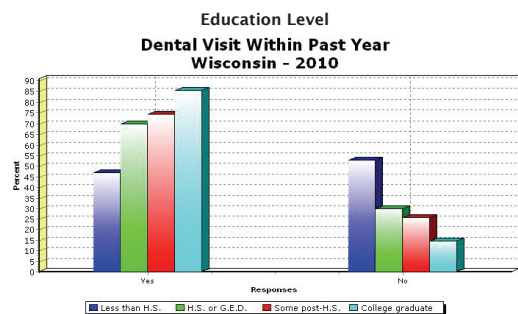
<http://apps.nccd.cdc.gov/brfss/education.asp?cat=OH&yr=2010&qkey=6607&state=WI>

People are at higher risk of having dental problems if they have not been to the dentist in over a year. In the 2010 BRFSS, 25% percent of Wisconsin adults reported that they had not been to the dentist in over a year. These numbers varied by age, income level, education and race/ethnicity.

- The rates were highest between the ages of 25-34 (35%), followed by those 65 and older (27%).
- The rates were higher for those at lower income levels and with less education (less than high school education). *See charts.*
- Adults of color (blacks, Hispanic and other racial groups) are more likely to report that it had been more than 12 months since they have visited the dentist compared with than whites.



<http://apps.nccd.cdc.gov/brfss/income.asp?cat=OH&yr=2010&qkey=6610&state=WI>



<http://apps.nccd.cdc.gov/brfss/education.asp?cat=OH&yr=2010&qkey=6610&state=WI>

Dane County: The results of the state BRFSS have also been analyzed for Dane County adults:

- 33% of Dane County adults reported having at least one tooth removed due to decay or gum disease (pooled data from 2006, 2008, 2010).
- 22% of Dane County adults reported that they had not been to the dentist in more than a year (pooled data from 2006, 2008, 2010).

## Older Adults

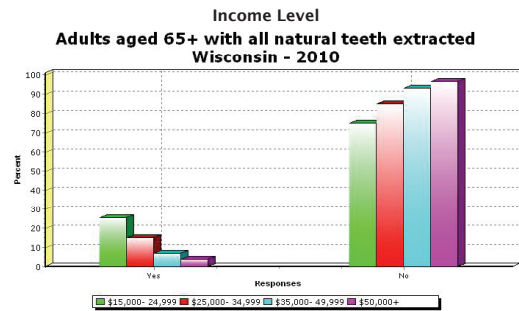
Wisconsin: Although information from the Behavioral Risk Factor Survey was already reported on all Wisconsin adults (18 years or older) who have had at least one permanent tooth removed, below is information regarding Wisconsin adults aged 65 and older that have had all their natural teeth removed (edentulous):

- In 2010, 16.3% reported that all their natural teeth were removed. Although compared to the rest of the nation (24%), Dane County is doing well, but there are disparities in certain populations.
- The rates are higher for those whose income is lower. (25.3% for income \$15,000-24,999 and 3.8% for those whose income is greater than \$50,000. *See chart.*

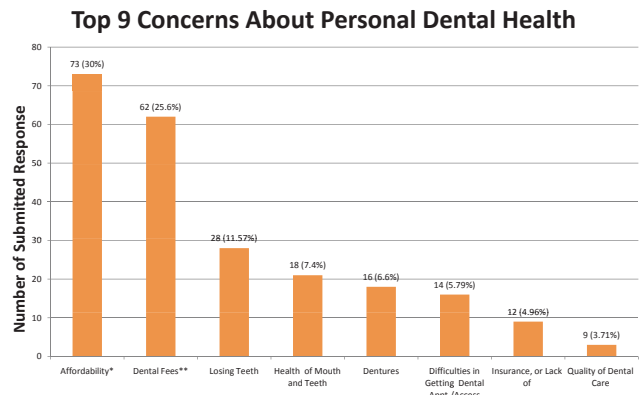
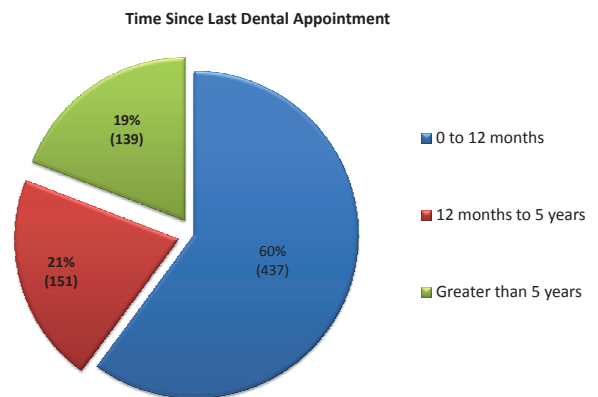
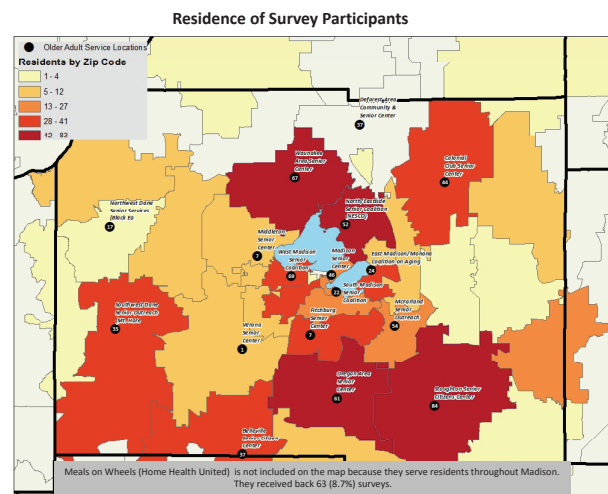
Dane County: In 2011 (May – July), Public Health Madison and Dane County, in partnership with the Area Agency on Aging, conducted a self-reported oral health survey of older adults living at home (60 years and older), evenly distributed throughout Dane County. This was distributed through nutrition services (meal sites, home delivered meals and farmer’s market voucher distribution), senior classes at 4 senior centers, and through community case managers.

There were a total of 727 oral health surveys returned. Sixty six percent were aged 75 years and older. A map shows the distribution across the county of returned surveys. *See map.*

- 21.3% (155) said that they had tooth or mouth problems that made it difficult to eat.
- 29.3% (213) have had all their teeth removed, and 4.7% of those are without dentures.
- 40% (290) said that they have not been to the dentist or dental specialist in the past year (19% over 5 years). *See chart.*
- 24.9% (181) said that in the last 12 months, they did not get needed dental care because they could not afford it.
- 64.5% (469) paid out of pocket.
- The biggest concerns that respondents had about their personal dental health was related to the cost of dental care. *See chart for other concerns.*



<http://apps.nccd.cdc.gov/brfss/income.asp?cat=OH&yr=2010&qkey=6606&state=WI>



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## PREVENTION & PROTECTIVE FACTORS

*Fluoride and dental sealants are preventive strategies that are proven to reduce the incidence of dental decay.*

### Fluoride

#### Fluoridated Community Water

Community water fluoridation provides optimal levels of fluoride to all population groups to prevent dental caries. All municipal water in Dane County has fluoridated water, with the exception of the Village of Dane.

- 99% of the Dane County residents on a community water system have access to optimally fluoridated water. However, there is a significant population in the county that has private wells, which may or may not have optimal levels of fluoride.
- 69% of all Dane County residents, regardless of water source, have access to fluoridated water.

**Note:** Optimal levels of fluoride for Dane County residents may be impacted by increased consumption of bottled water (with little or no fluoride).

#### Fluoride Supplement Program

Public Health Madison & Dane County, in cooperation with the Dane County Dental Society, offers supplemental fluoride to Dane County children ages 6 months to 14 years in areas where there is no fluoride in the drinking water (families with private wells, approximately 22,000 in Dane County, or in communities without water fluoridation).

In the past three years, the numbers of people participating in the Fluoride Supplement Program are as follows:

- Between 2009 and 2011, there was an average of 520 families participating in the program.
- Between 2009 and 2011, there was an average of 1,056 children served by the program.

#### Topical Fluoride or Fluoride Varnish Program

Fluoride varnish applied to the teeth of infants and toddlers significantly reduces the incidence of early childhood tooth decay.

In the 2011-12 school year, the Celebrate Smiles Program applied fluoride varnish to 2,119 students (K-2nd grade).

At the Dane County Head Start program, 781 children (ages 0-5) received fluoride varnishes from a dentist or at a well child exam in 2011.

Fluoride varnishes are also applied to young pediatric patients in private dental offices and primary care clinics by health care practitioners throughout Dane County.

## Dental Sealants

Dental sealants are thin plastic coatings that are applied to pits and fissures (grooves) on chewing surfaces of permanent molars to protect teeth from dental decay. About 90% of tooth decay in children's permanent teeth occurs in these pits and fissures. Dental sealants are effective both in preventing tooth decay and in stopping the progression of tooth decay.

In Dane County, the Celebrate Smiles Program screens K-5th grade children in select Dane County schools. Sealants may be applied to 1st or 2nd molars.

- In 2010/11, of the 3,541 children screened, 584 (16.5%) received sealants.
- In 2011/12, of the 5,571 children screened, 1,550 (28%) received sealants.

Dental sealants are also available through other dental programs and in private dental offices.

## DENTAL RESOURCES

### Dental Workforce and Capacity

- In 2010, there were between 305 licensed dentists and 443 licensed dental hygienists with addresses in Dane County. There is no available information giving the exact number of practicing dentists or dental hygienists.
- Specific areas of Dane County (South Madison and Far East/North Madison) are authorized as Federally Designated Dental Health Professional Shortage Areas (dental HPSA's). This means that there is a significant shortage of dentists providing care to low-income populations in these areas. *See chart.*

### Medicaid Utilization for Dental Care

- In state fiscal year 2009, only 26.3% (14,812) of all Dane County Medicaid/BadgerCare Plus members (56,319) received at least one dental service in the past year.
- Out of the less than 50% of the dentists that are MA/Badger Care Plus certified, only about 10% actually billed for services and for those dentists that accept MA, many cannot accept new patients.

### Dane County "Safety Net" Oral Health Programs

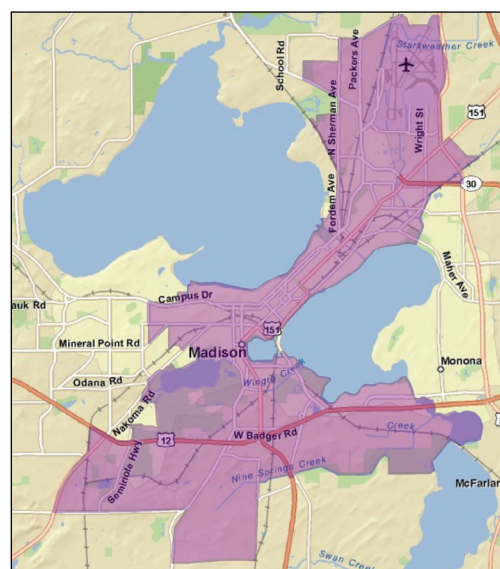
The Institute of Medicine's report, *America Health Care Safety Net* (2000), defines safety net providers as those who "organize and deliver a significant level of health care and other health-related services to uninsured, Medicaid, and other vulnerable patients." Safety net clinics may be operated by federally qualified health centers, local health departments, neighborhood health centers that are private not-for-profit agencies, rural health centers, Indian Health Service or tribal units, institutions, schools, hospitals, or other entities.

### Dental Clinics for General Populations:

Access Community Health Center Dental Clinics, a federally qualified health center (FQHC), provide dental services to a number of people, regardless of age or insurance status.

- In 2011, there were a total of 9,671 patients that received dental care at an Access Dental clinic in Dane County.
- There are significant numbers of people who are unable to make appointments due to need far exceeding capacity.

Madison Dental HPSAs



Updated 3/31/2010

<http://www.dhs.wisconsin.gov/health/primarycare/docs/MapsofUrbanHPSAs2.pdf>

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Max W. Pohle Dental Clinic of Meriter Hospital is another clinic that serves people of all ages, both uninsured and those on Medicaid/BadgerCare Plus. Because of the overwhelming demand the clinic accepts new patients through a lottery system. This safety-net dental clinic in Dane County provides dental care to special needs patients, including those severely mentally disabled, and patients who must receive general anesthesia to be safely treated. Postgraduate dental residents deliver most of the care.

- Max W. Pohle Dental Clinic serves between 4500-5000 patients annually, with the majority of them adults.
- Most of the dental visits are for dental caries, periapical abscesses and gum disease.
- Since the program is over capacity, there are between ten and twenty people turned away daily who have to call back for an appointment.

### **Dental Clinics for Special Populations:**

- Children's Dental Health Program is a dental program that provides comprehensive care and a dental home for children ages 4-18. The participants are uninsured and whose income must fall within the Federal Income Poverty Guidelines. This is a Public Health program, in partnership with Madison College and their Dental Hygiene Program.
  - » In 2010-11 school year, 143 children were provided comprehensive dental care.
- Give Kids a Smile Program is a program whereby approximately 90 Dane County dentists (general dentists and specialists) provide comprehensive dental care in their own clinics to Dane County school children (ages 5-18), who are uninsured or MA/BadgerCare Plus members. Children in need are identified by school personnel.
  - » In 2011, 272 children were provided comprehensive dental care.
- Celebrate Smiles Program (previously described) is a school-based dental prevention and treatment program, provided in select schools with a high percentage of students eligible for free & reduced meal programs. All students are screened. Children with signed consent forms are provided dental treatment and/or dental sealants.
  - » 2011/12 school year (as of 2/2012) 5,571 children were screened in 17 schools.
- Madison Dental Initiative (MDI) is a not-for-profit volunteer supported organization providing comprehensive dental care to Dane County children and families residing within homeless shelters or those who have been identified as being at-risk for homelessness. MDI provides services at a clinic at the Salvation Army Homeless Shelter three days per week. MDI is also a partnership with UW-Madison School of Medicine and Public Health and the MEDiC outreach program.
  - » In 2011, 422 people (unduplicated) were served by the clinic with prevention, restorative and emergent care.
- AIDS Network Dental Clinic, located in Madison, is part of the services of the AIDS Network provided to those living and affected by HIV/AIDS. This population has special needs due to client's diminished immune system and slower healing times. They provide preventive and restorative oral health care. This clinic is a collaboration with Max Pohle Dental Clinic and Dr. Doyle at UW Hospital.

In addition, there are private dentists in Dane County, including dental specialists, such as pediatric dentists, oral surgeons, endodontists and orthodontists, who provide care to Medicaid/BadgerCare Plus enrollees or charitable care to those who have no dental insurance. We do not have the actual number of dentists or the number of people for which they have provided dental care.



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## RECOMMENDATIONS TO REDUCE THE BURDEN OF ORAL DISEASE IN DANE COUNTY

The purpose of this report is to raise awareness to the whole community that there are large numbers of people and organizations that are impacted by oral health concerns. This problem is larger than one organization, entity or group can address. To make a real and positive difference, the entire community needs to come together to support efforts to reduce the burden of oral disease.

In order to address the burden, we need a multifaceted, community-wide approach.

### **Policymakers:**

- Educate policy makers at the state and local government level on the extent of the problem, the connection of oral health with overall health, the amount of resources already invested in the community, and the implications of policy on capacity for services. Continue to advocate for ways to remove institutional barriers to improve access.

### **Dental and Medical Community:**

- Bring together the dental community and health care organizations to develop strategies. Following a meeting between the Oral Health Coalition of Dane County leadership and the Dane County Dental Society (DCDS), it was decided to form a working group to develop specific action steps to address the problems. The plan is to review successful programs from other communities to adopt locally, such as developing emergency department guidelines, or dental/hospital referral models.

### **Community/General Public:**

- Identify a program/location where emergency treatment is accessible to all.
- Educate the general public on the importance of oral health, as part of overall health.
- Educate the general public about prevention, so fewer people will need to seek emergency dental care in emergency rooms and urgent care center centers.

All age groups are affected by oral health issues, but there are special considerations for specific populations that might require a slightly different approach.

### **Children:**

- Although we are doing better with meeting the needs of children in Dane County, better communication among children's dental providers and dental providers, child advocates, and community partners (agencies) would be a good step forward. Plans for a child oral health subcommittee of the Oral Health Coalition of Dane County are underway to address this specific issue.
- There are racial disparities among teenage youth, in terms of access to care and absence from school from tooth pain. This needs to be addressed with targeted efforts.

### **Adults:**

- There is a critical need for adult dental resources, especially for young adults that may no longer be covered by any insurance. Emergency dental resources need to be identified and only then can dental education and prevention be addressed.

### **Older Adults:**

- Information was gathered from a self-reported survey of a cross-section of older adults. Many report oral health issues and difficulties in accessing care due to their limited budgets. There is an opportunity for collaboration between Area Agency of Aging (and their system of services), local dental providers and other community partners, to provide needed services to this population.

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## ORAL HEALTH COALITION OF DANE COUNTY

The Oral Health Coalition of Dane County was formed in 2008 and currently has a membership of 25 organizations, plus 3 unaffiliated individuals. There are 4 subcommittees: Education, Advocacy, Data and Membership.

The mission of the Coalition is to improve oral health through prevention, education, and increased access to dental care for community members of all ages in Dane County, achieved by:

- Building and maintaining partnerships.
- Developing capacity to be operationally and financially sustainable.
- Providing and promoting community-wide oral health education and prevention.
- Engaging decision-makers in oral health advocacy at the local, regional, and state levels.
- Improving and expanding oral health surveillance in Dane County.

### *2011 Goals and Objectives*

#### **Goal I: Continued infrastructure development for the Oral Health Coalition of Dane County**

##### **Objectives:**

- Promote and expand Oral Health Coalition membership and participation.
  - » With the Advocacy Workgroup, invite Dane County legislators to join OHCDC
  - » Invite individuals/agencies to join OHCDC as identified by OHCDC members.
- Maintain organization structure and operating procedures, including workgroups: Education, Advocacy, Data and Membership.
- Develop capacity to respond to grant opportunities related to Coalition priorities and target populations by increasing membership of the OHCDC.

#### **Goal II: Produce a consistent set of local oral health data to identify issues and resources, quantify unmet needs of the community and direct/develop oral health initiatives.**

##### **Objectives:**

- Produce biannual local oral health report and launch with Coalition partners.
- Design a small scale pilot to provide dental care/home to those reporting to Dane County Hospital emergency Departments and Urgent Care Centers.

#### **Goal III: Improve the oral health of Dane county by providing and promoting community-wide oral health education and prevention.**

##### **Objectives:**

- Create an oral health campaign with a consistent oral health message. This message will be agreed upon by the coalition and will be used by all members of the coalition when educating Dane County professionals and members. Focus efforts on diverse populations.
- Provide oral health information and protocols to Dane County Emergency Departments and Urgent Care Centers, as national and local “best practice” updates become available, through coalition member resources.

#### **Goal IV: Engage local decision makers in oral health issues at the local, regional and state levels.**

##### **Objectives:**

- Develop working relationship with legislative advocates and policy makers around oral health issues.
- Develop political will using grassroots advocacy strategies to educate/promote the mission of OHCDC.