



Informing the **Public** & Guiding **Policy** by **Conducting** Research

Access to Dental Care and the Oral Health Safety Net

**Impact of the ACA and
Health System Change on
the Iowa Safety Net**

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Introduction

Despite improvements in the oral health of the U.S. population in the past 60 years, oral disease still affects the majority of Americans. Considerable oral health disparities exist across different segments of the population. For example, low income populations and certain racial/ethnic minority groups bear a higher burden of disease compared to the rest of the population. These inequalities are also evident in the ability to access dental care, which compounds the burden of oral disease among vulnerable populations

This report describes the major components of the oral health safety net in Iowa. The goal of this report is provide a foundation for discussion about the impact of the Patient Protection and Affordable Care Act (ACA) on the oral health safety net. The oral health safety net has been defined as a “composite of all places, providers, and programs that deliver dental services to people disenfranchised from the predominant private dental delivery system.”¹

While the implementation of the ACA has the potential to improve access to oral health care, primarily through the expansion of both public (i.e., Medicaid and the Children’s Health Insurance Program-CHIP) and private (i.e., plans through the Exchanges) insurance options, it is unclear whether the current delivery system will be able to support these newly insured individuals.

This report is part of project to examine the impact of the ACA on the dental safety net, supported by a grant from the DentaQuest Foundation (Boston, MA). Other components of this project include a survey of the level of private practitioner participation in Medicaid and an analysis of FQHC dental capacity. This project is part of a broader study of the impact of the ACA on the financing and delivery of care through the health safety net in Iowa, supported by The Commonwealth Fund (New York, NY).

Additional information about the oral health safety net projects can be found at:

<http://ppc.uiowa.edu/health/study/dental-safety-net-iowa-dsni-project>

Additional information about safety net project, supported by The Commonwealth Fund can be found at:

<http://ppc.uiowa.edu/health/study/health-care-safety-net-iowa-post-health-care-reform>

Overview of the ACA

The Patient Protection and Affordable Care Act (ACA) will impact the U.S. dental healthcare system in a number of ways that are pertinent to this report. First, it will expand Medicaid coverage to all individuals living under 138% of the federal poverty level (FPL). This includes approximately 16 million new Medicaid-enrolled adults.² Depending on the scope of Medicaid dental coverage in each state, these low-income populations will have dental coverage when they previously did not, increasing the demand for dental care. Additionally, starting in 2014, all private and public insurance packages must contain a set of Essential Health Benefits, which includes pediatric dental coverage. This addresses a gap in coverage for dependents of adults who get their coverage in the individual and small group health insurance market. These health insurance plans typically do not have dental coverage for the employees or their dependents.³ As a result, all children in the U.S. will have access to either public or private dental insurance.

In addition to affecting individual health insurance coverage, the ACA will also provide funding for oral health promotion measures, workforce enhancement, and infrastructure improvements. Specifically, grants will be available to states wanting to develop and expand the scope of their school-based sealant programs, and funding will be available to federally qualified community health centers (FQHCs) to improve operations and increase student loan repayments for FQHC healthcare providers. These provisions of the ACA should be taken into account when looking to the future of the oral healthcare system in Iowa and the United States.

Iowa Population Demographics

As of the 2010 census, there were just over 3 million people in Iowa, ranking it 30th in the U.S. in terms of total population. The percent of people in Iowa under age 5 (6.5%) and under age 18 (23.7%) are similar to the national averages.⁴ However, the percent of the population age 65 and over (14.9%) is above the national average (13%), making it the state with the fifth highest proportion of the population over age 65 in 2010.⁵

Iowa is more racially and ethnically homogeneous than the rest of the country (**Figure 1**).

The state has a slightly higher proportion of the population who has graduated from high school than the national average (89.9% in Iowa vs. 85.0% in U.S.), but fewer who have graduated from college (24.5% vs. 27.9%). Our median household income is slightly lower than the national average (\$48,872 vs. \$51,914), and yet the percent of people below the federal poverty level is slightly lower as well (11.6% vs. 13.8%).

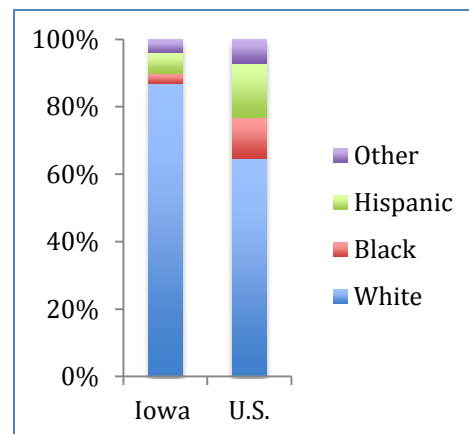


Figure 1. Population distribution of Iowa and the U.S. (2010)

Oral Health Objectives

The U.S. Department of Health and Human Services has developed objectives for improving the health of Americans and dealing with health disparities. The steering document, Healthy People 2020, contains 42 health topic areas, one of which is oral health. Within oral health, 33 specific objectives address issues from dental caries to edentulism, and from preventive dental visits to reducing oral health disparities.

The Iowa Department of Public Health has worked to create specific objectives designed to improve the health of Iowans based on community health needs assessments of counties. Several organizations, including Delta Dental of Iowa and the Center for Rural Health and the Primary Care Advisory Committee at the Iowa Department of Public Health, are actively working to improve the oral health of Iowans, while using these objectives to inform their oral health-improvement activities.⁶

Iowa's Oral Health Safety Net

In its broadest sense, the oral health safety net encompasses all aspects of the health care system where underserved populations can access oral health services and/or improve their oral health status. The American Dental Association considers the following to be significant components of that system:⁷

- Private dental settings (Medicaid, CHIP, in-office pro bono care)
- Federally Qualified Health Centers
- Hospital emergency departments
- Local Health Departments
- Dental residency programs in hospitals, clinics and dental schools
- School-based programs
- Charity and volunteer programs
- Dental schools
- Free clinics
- Non-dental providers (i.e. physicians and school nurses)
- Long-term care and special needs services
- Indian Health Service (IHS) and tribal clinics

In Iowa, all of these entities except IHS clinics contribute to the oral health safety net.

Private Dental Providers

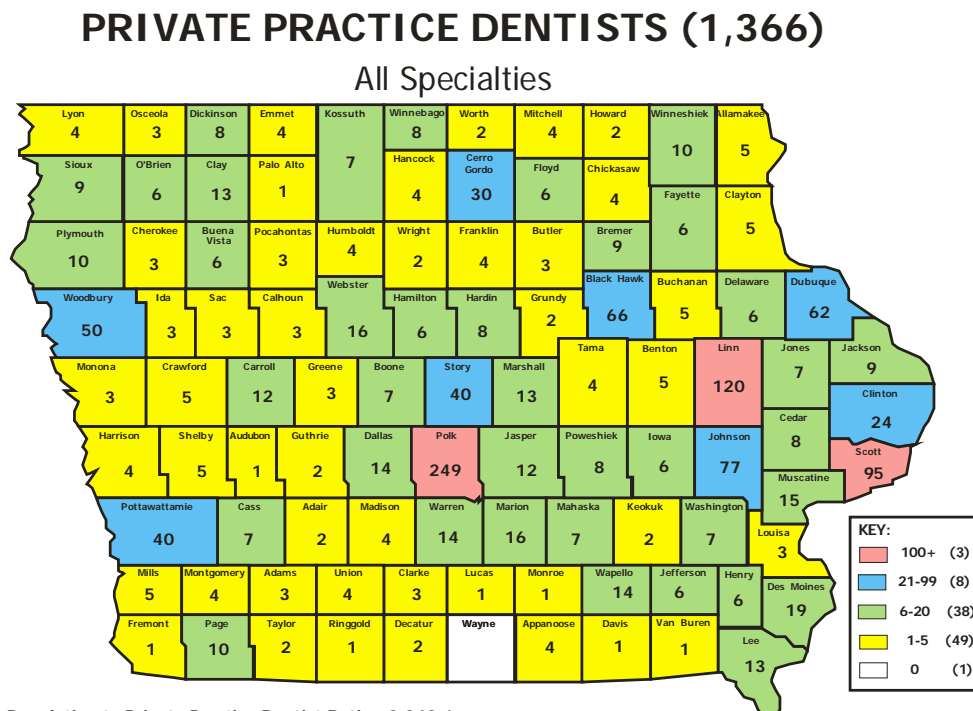
In the United States generally, and Iowa specifically, private practice dentists make up the largest proportion of the oral health safety net. As of 2011, there were 1,506 professionally active dentists in Iowa, 91% (1,366) of whom are engaged in private practice.⁸ Nationally, approximately 92% of professionally active dentists in the U.S. are private practitioners. The number of private practice dentists per county range from 0 (Wayne County) to 249 (Polk County) (**Figure 2**). Notably, 53% of Iowa dentists were over age 50 in 2011 (Table 1), compared to 36% in 1997.

53% of Iowa dentists were over age 50 in 2011, compared to 36% in 1997.

The fact that over half of the dentists in the state are over age 50 is reflective of the aging dentist population nationally. In 1990, the average age of all private practice dentists and specialists in the U.S. was 46 years. In 2000, it had increased to 50 and in 2009 to 53.⁹ A recent survey of U.S. dentists found that the average planned retirement age was 66 years.¹⁰

There is less known about the dental hygiene workforce but as of October 2012, there are 2,146 licensed dental hygienists in the state of Iowa, ranging from 0 in Ringgold and Fremont Counties to 337 in Polk County.¹¹

Figure 2. Private practice dentists per county (2011)



Population to Private Practice Dentist Ratio: 2,242:1
Source: US Census 2011 Estimated Iowa Population

Source: Iowa Health Professions Training Center, Office of Statewide Clinical Education Programs, UI Cancer College of Medicine, May 2012

K:\Graphics\Maps\ODDentists 2011\121.dfr

Table 1. Iowa Private Practice Dentists (2011)⁸

	Number (%)
<i>Gender</i>	
Female	307 (22.5%)
Male	1,059 (77.5)
<i>Age (years)</i>	
<30	93 (6.8%)
30-39	296 (21.7)
40-49	253 (18.5)
50-59	430 (31.5)
60-69	252 (18.4)
≥70	42 (3.1)
<i>Hours Worked/Week</i>	
Full-time (≥ 32)	1,162 (85%)
Part-time (<32)	204 (15)
<i>Specialty</i>	
General Practice	1,131 (82.8%)
Orthodontics	76 (5.6)
Oral Surgery	53 (3.9)
Pediatric Dentistry	44 (3.2)
Endodontics	28 (2.0)
Periodontics	20 (1.5)
Prosthodontics	14 (1.0)
<i>Practice Arrangements</i>	
Solo Practice	600 (43.9%)
2 Member Partnership/Association	404 (29.6)
3-4 Member Group/Single Specialty	208 (15.2)
3-4 Member Group/Multi Specialty	11 (0.8)
5-6 Member Group/Single Specialty	35 (2.6)
5-6 Member Group/Multi-Specialty	12 (0.9)
Corporate	55 (4.0)
Multi-Site Dental Group	41 (3.0)
TOTAL	1,366

What is the role of private practitioners in the dental safety net?

Patients seen in private offices are more likely to be privately insured than the general population. Among patients seen by U.S. private practice dentists (general and specialists) in 2009, 64% had private dental insurance, 7% had public insurance, and 29% were uninsured.⁹

During 2011, 1,146 dentists in Iowa were enrolled as Medicaid providers (written correspondence, Iowa Department of Public Health). Of those, 1,131 had any paid claims from Iowa Medicaid. Forty percent (606) of all active dental providers (Medicaid and non-) had more than \$10,000 in paid Medicaid claims.¹² One county had no dentist billing Medicaid in 2011 (Davis County) and nine had only one Medicaid provider.

40% of Iowa dentists were active Medicaid providers in 2011.

While it is difficult to compare Iowa to the rest of the nation because there are no recent national data on the percentage of dentists who are active Medicaid providers, Iowa dentists appear to participate in the Medicaid program at a higher rate than the national average.

NOTE: There is anecdotal concern that a policy that is currently requiring dentists to re-enroll in the Iowa Medicaid program is causing many to reconsider their participation and that re-enrollment rates are significantly lower than in the past. A survey is currently being conducted with all private practice dentists in Iowa to determine their level of Medicaid participation and attitudes toward the program.

Nationally, private practice dentists are the largest provider of care for Medicaid-enrolled patients, as they are in Iowa. In 2000, one-fifth of U.S. dentists – approximately 30,000 – were active Medicaid providers, billing Medicaid at least \$10,000 during the year.¹ In 2009, ADA members reported that only 7% of their patients were on some form of public assistance, 29% were uninsured, and the rest were privately insured.⁹ These proportions have remained nearly the same since 1990.

Community health centers, along with other public and academic providers of oral health services, do not have the capacity to take on the entire dentally underserved population. Therefore “any serious effort to increase the amount of care available to the underserved in any meaningful way must better incorporate the approximately 170,000 privately practicing dentists who represent some 91 percent of the nation’s professionally active dentists”.⁷

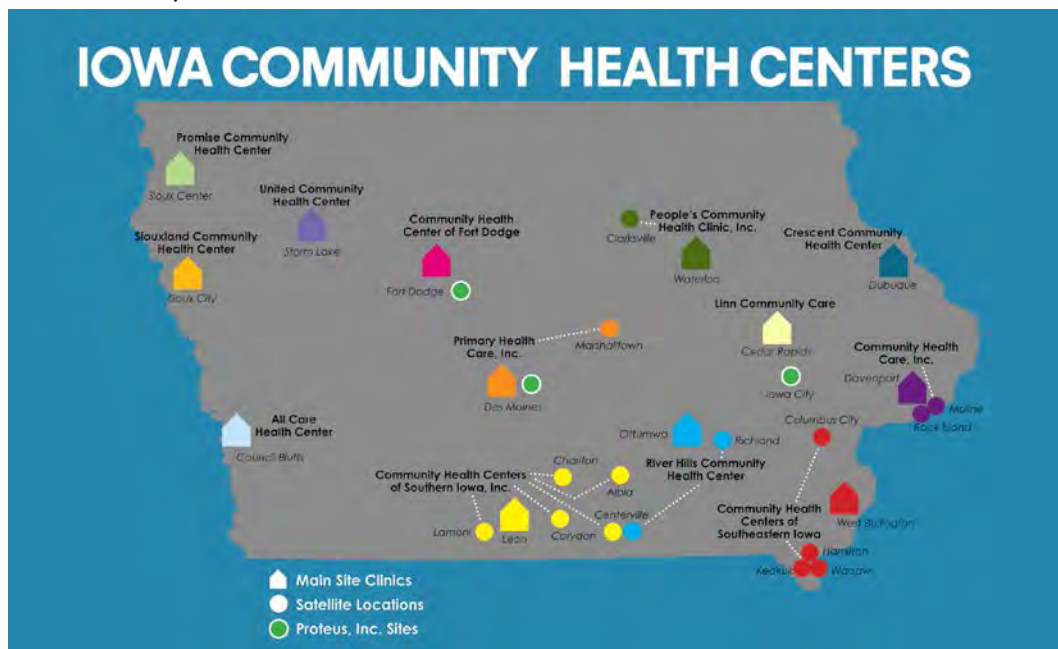
Public and Nonprofit Sources of Care

Public and nonprofit facilities provide care mostly to underserved populations. These include FQHCs, dental schools, free clinics and charity programs, hospital emergency departments, local health departments, long-term care and special needs services, and school-based programs.

Federally Qualified Health Centers (FQHCs)

As of 2013, Iowa has 14 FQHCs (**Figure 3**). Of these, 12 provide dental services and delivered dental care to 32% (58,000) of their 181,458 patients in 2011.¹³

Figure 3. Federally Qualified Health Centers in Iowa



Nationally in 2011, FQHCs provided health care services to 20 million people who were underserved or could not otherwise access care. Approximately 72% of the over 1,000 FQHCs in the U.S. provide preventive dental services onsite. These sites provided dental care to 4 million patients with 9.9 million visits - approximately 12% of all healthcare visits – in 2011.^{14,15}

Of the patients seen at Iowa's FQHCs:¹³

- 94% fall under 200% of the federal poverty level (FPL)
- 35% are uninsured
- 38% are covered by Medicaid
- 54% live in rural areas

The average dental cost per patient at Iowa's FQHCs in 2011 was \$137 per visit – less than the national average of \$160.^{15,16} Dental services provided by Iowa's FQHCs in 2011 resulted in charges of over \$18 million.¹⁶

Table 2 describes the dental services provided by Iowa's 12 FQHCs in 2011 by service category.

Table 2. Dental services provided by Iowa FQHCs (2011)

Dental Service Category	Number of Visits	Number of Patients	Visits Per Patient
Emergency Services	3,327	2,831	1.18
Oral Exams	64,308	47,510	1.35
Prophylaxis	43,315	32,711	1.32
Sealants	3,623	3,164	1.15
Fluoride Treatment	37,194	26,704	1.39
Restorative Services	36,050	19,097	1.89
Oral Surgery	14,087	11,271	1.25
Rehabilitation Services (Endo, Perio, Pros, Ortho)	6,147	3,953	1.56

Source: HRSA Health Center Data – Iowa 2011

In 2011, Iowa's FQHCs employed:¹⁷

- 34 full-time equivalent (FTE) dentists who provided 102,202 total patient visits,
- 22 FTE dental hygienists who provided 30,252 patient visits,
- 82 FTE dental assistants (**Table 3**)

FQHC dentists in Iowa saw an average of 1,030 patients each with 3,011 visits in 2011. This is slightly higher than the national average of 921.6 patients and 2,682 visits per FQHC dentist.

Additionally, Iowa CHC hygienists had an average of 1,380 patient visits in 2011, while the national average is 1,314.¹⁵

Table 3. Oral health capacity of Iowa FQHCs (2011)

FQHC	Dentists (FTE)	Hygienists (FTE)	Assistants (FTE)	Chairs	Dentist Vacancies	Patients	Visits
Community Health Care, Inc. (Davenport)	9.11	6.58	24.46	23		15,654	37,019
<i>Satellite: Rock Island</i>				8			
Community Health Center of Fort Dodge	1.5	0	2.5	4		2,235	3,861
Community Health Centers of Southeastern Iowa (Burlington)	1.9	0.5	4.68	10		4,698	8,153
<i>Satellite: Columbus City</i>				5			
Community Health Centers of Southern Iowa, Inc. (Albia) (since Jan 2011)	1.18	0.92	2.07	3		863	2,630
Council Bluffs Community Health Center, Inc.	1	1	2.95	7	1	1,652	3,994
Crescent Community Health Center (Dubuque)	1.8	1.68	4.37	7		3,770	8,960
Greater Sioux Community Health Center (Sioux Center) (FQHC Look-Alike)	.20	.20	.20	3	1	606	1,188
Linn Community Care* (Cedar Rapids)				0		389	389
Peoples Community Health Clinic, Inc. (Waterloo)	3.86	1.89	10.1	8	1	5,168	12,669
<i>Satellite: Clarksville</i>				2			
Primary Health Care, Inc. (Des Moines)	4.4	3.49	10.2	8	1	7,462	18,276
<i>Satellite: Marshalltown</i>				7			
Proteus Migrant Health Project* (Des Moines)				0		96	116
River Hills Community Health Center, Inc. (Ottumwa)	3.88	2.68	7.64	12		5,484	13,271
<i>Satellite: Richland</i>				4			
<i>Satellite: Centerville</i>				4			
Siouxland Community Health Center, Inc. (Sioux City)	4.13	2.55	10.9	14	1	8,541	19,107
United Community Health Center (Storm Lake)	1	0.86	1.95	3		1,547	4,009

FTE data source: 2011 UDS report *Contracted dental service

Non-FQHC Clinics

Several non-FQHC clinics provide dental services to underserved populations in Iowa. **Des Moines Health Center** (DMHC) in Polk County is a private, non-profit community health center that provides comprehensive dental care mostly to children (65%) and some adults (35%) from Polk, Warren, and Dallas counties.¹⁸ In Cedar Rapids, **St. Luke's Dental Health Center** provides comprehensive dental care to children enrolled in the Medicaid and Children's Health Insurance Program (CHIP, or *hawk-I* in Iowa) and uninsured/underinsured disabled adults and children from Linn and surrounding counties. A county-financed dental clinic at **Broadlawns Medical Center** in Des Moines provides comprehensive care for adults and children. Adult patients are accepted there on a walk-in basis only, while children may be scheduled for appointments.¹⁹

Charity Programs:

❖ *Iowa Mission of Mercy*

The annual Iowa Mission of Mercy (IMOM) began in 2008 and is a two-day event where dental volunteers provide treatment services free of charge to anyone. In 2011, 1,252 volunteers participated – including 173 dentists, 93 dental hygienists, and 132 assistants. **Table 4** shows the number of patients seen and total value of services provided since 2008. Patients treated by IMOM events disproportionately represent racial/ethnic minorities. Approximately 10-20% of patients have been children. In 2010, 81% of IMOM patients had no dental insurance and 22% reported that their most recent dental visit was over 5 years ago.

Table 4. Treatment Provided at Iowa Mission of Mercy Events

Year	Patients Treated	Treatment Value
2008	1,254	\$602,540
2009	1,558	\$848,116
2010	1,439	\$948,375
2011	1,355	\$1,173,080
2012	1,389	\$923,000

❖ *Iowa Donated Dental Services (DDS) Program*

The Iowa DDS Program was established in 2005 by Dental Lifeline Network with support from the Iowa Dental Association and funding from the Delta Dental of Iowa Foundation. This program provides free dental care to disabled, aged, or medically fragile adults who are unable to afford dental care and are ineligible for public assistance. A program coordinator screens applicants and links patients with volunteer dentists. From July 2011 - June 2012, 186 patients received comprehensive care from volunteer dentists in Iowa, who provided over \$560,000 worth of care.

Free Dental Clinics

A limited number of free dental clinics operate in Iowa. However, daily availability is restricted and wait-times are typically long. For example, the Community Health Free Clinic in Cedar Rapids has a current waiting time of 6-8 months. The Gateway Free Clinic in Clinton sees patients on one half-day per week and the Iowa City Free Medical Clinic treats patients only two evenings per month.

Educational Programs

❖ University of Iowa College of Dentistry

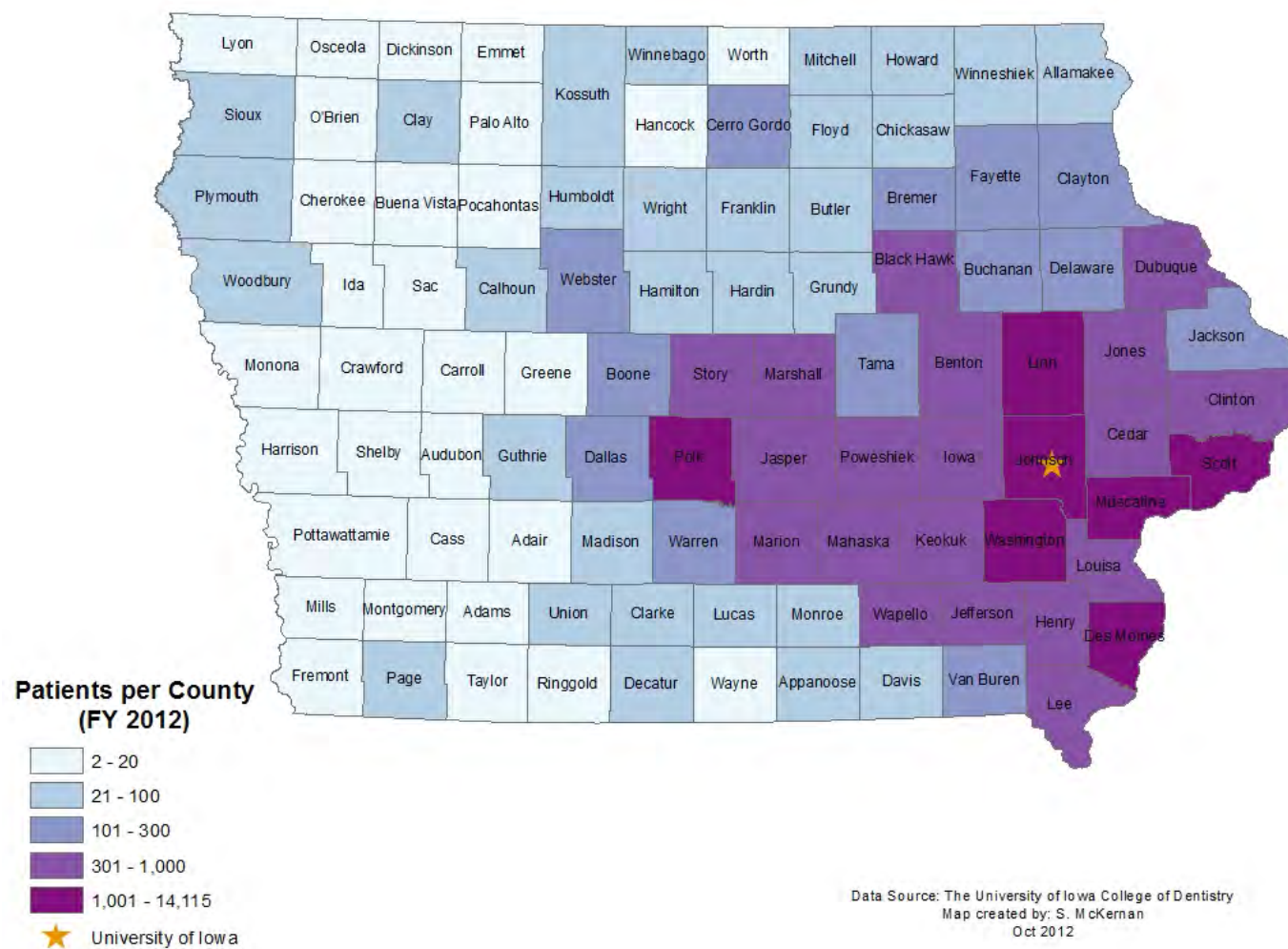
The University of Iowa College of Dentistry in Iowa City graduates approximately 80 dentists each year, and 76% of Iowa dentists and specialists attended either dental school or residency at this institution.^{8,20} In 2012, The University of Iowa College of Dentistry and Dental Clinics treated over 46,000 patients with over 160,000 visits. Characteristics of patients seen at the College of Dentistry are described in **Table 5**. Patients were seen from all 99 counties in the state (**Figure 4**) and all 50 states in the country.

Table 5. Patients treated at The University of Iowa College of Dentistry and Dental Clinics (FY 2012)

	N (%)
Gender	
Male	21,544 (47%)
Female	24,632 (53%)
Race/ethnicity*	
White	17,080 (80.9%)
Black	1418 (6.7%)
Hispanic	1371 (6.5%)
Asian	801 (3.8%)
American Indian	27 (0.1%)
Other	416 (2.0%)
Age	
0-4 years	1,687 (3.7%)
5-18	8,389 (18.2%)
19-54	21,815 (47.2%)
55+	14,728 (31.9%)
TOTAL	46,201 (100%)

*Percent of patients who reported race/ethnicity (Total = 21,113)

Figure 4. Patients treated by The University of Iowa College of Dentistry and Dental Clinics per county (FY 2012)



❖ *Dental Hygiene Programs*

There are five dental hygiene programs in Iowa. Dental hygiene programs are offered at the Des Moines Area Community College (DMACC), Hawkeye Community College (Waterloo), Iowa Central Community College (Fort Dodge), Iowa Western Community College (Council Bluffs), and Kirkwood Community College (Cedar Rapids/Iowa City).²¹ All programs offer associate degrees and graduate approximately 100 dental hygienists per year.

Dental hygiene schools provide preventive services in their student clinics and have dentists on staff in order to identify treatment needs and refer to local dentists as needed.

The University of Iowa College of Dentistry and Dental Clinics graduates approximately 80 dentists per year, and Iowa's dental hygiene programs graduate approximately 100 dental hygienists per year.

Dental Assistant Programs

Dental assistants in Iowa may become registered through on-the-job training or through a formal educational program, offered at nine community colleges in the state.²²

Details regarding the scope of practice for dentists, hygienists, and assistants may be obtained from the Iowa Dental Board at <http://www.state.ia.us/dentalboard/>.

Hospital Emergency Departments

In 2010, there were 18,444 visits made to emergency departments (EDs) in Iowa for dental conditions excluding craniofacial trauma (ICD codes 520-529). Approximately 21% of visits nationally were by individuals lacking any form of health insurance (**Table 6**).²³ Such visits have been increasing each year. Nationally, over two million ED visits were made for dental conditions in 2009.

In 2009, 270 ED visits in Iowa for dental conditions resulted in a hospital admission with average admission charges of over \$15,000 each.²³

Table 6. Patients seen in Iowa Emergency Departments (EDs) for dental conditions (2009)

		Number	Percent
Age	<18 years	1,608	9
	18-44	13,536	73
	45-64	2,724	15
	≥65	576	3
Race/Ethnicity	White	14,230	77
	Black	1,946	11
	Hispanic	378	2
	Other	268	1
	Missing	1,622	9
Insurance	Private	3,840	21
	Medicaid	6,192	34
	Medicare	1,388	7
	Uninsured	6,458	35
	Other	566	3
Patient Residence	Metro	10,450	57
	Rural	7,983	43

Local Health Departments

There are 102 local health departments in Iowa. Of the 77 LHDs responding to a survey, 21 (27%) provide oral health services directly, 11 contract to local dentists for oral health service provision, and two provide direct services as well as contract with local providers.²⁴

Nationally, 27% of local health departments (LHD) provide direct oral health services – primarily diagnostic and preventive services.²⁵ As the population served by LHDs increases, they are more likely to provide comprehensive oral health services: 59% of LHDs serving populations over 500,000 provide comprehensive dental services.

Long-term Care Services

In 2009, Iowa had one of the highest numbers of certified nursing home beds per thousand elderly persons over age 65 in the country, housing 48,478 residents that year. The state has a total of 457 nursing homes, including for-profit, non-profit, and government facilities; 411 of these were dually certified to receive payment from both Medicare and Medicaid, 11 were Medicare-only, and 35 were Medicaid-only.²⁶ This institutionalized population makes up approximately 10% of Iowa's elderly and represents a high-need group for oral health services.

In 2007, a survey of nursing home directors and dentists was conducted to assess barriers to providing dental services for nursing home residents. When directors were asked whether they could get quality dental services for their residents, 60% said that they could get care for

dentate residents and 65% said they could for edentulous residents.²⁷ When dentists were asked whether they provided care for nursing home residents, 77% of respondents indicated that they did, including 36% who provided care at nursing homes and 64% who provided care at the dental office.

Other important findings from that survey:

- 45% of directors stated that some dental services were provided on-site in their nursing home
- 93% of directors reported that dental services were provided for their residents in a dental office
- 43% had assistance educating staff members about dental care for residents
- 77% thought dentists were only somewhat or not interested in providing care to nursing home residents

10% of Iowa's elderly live in nursing homes and constitute a high-need group for oral health services.

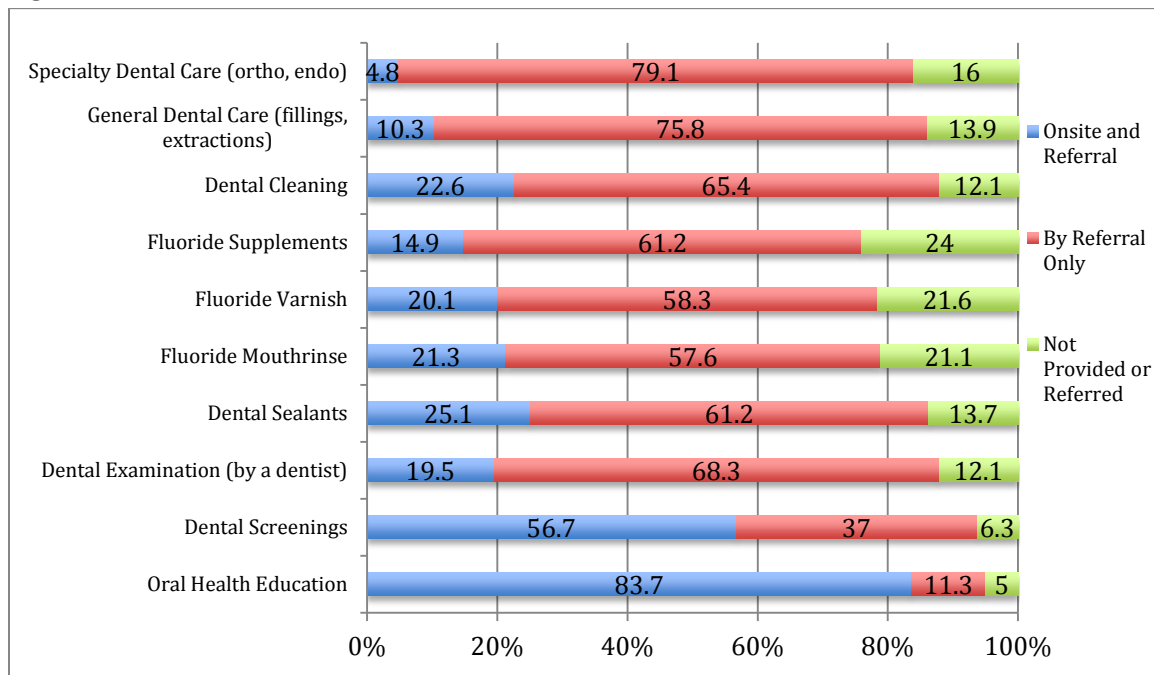
School-based Programs

The Affordable Care Act will provide \$200 million to support school-based health centers.²⁸ School-based dental programs may become a more common source of care for children as these centers expand to 29 states.

As of November 2009, there were 16 SBHCs in Iowa, up from 15 in 2008.³¹ In the 2007-2008 school year, none of the 12 SBHCs who responded to the survey provided general dental services.²⁹ School-based prevention programs in Iowa are described in the section on State Oral Health Promotion/Disease Prevention Programs.

There are currently more than 1,900 school-based and school-linked health clinics in the United States. School-based health clinics (SBHCs) provide services directly on site, while school-linked programs coordinate health services for students off site. Twelve percent of SBHCs have professional dental providers on staff, and 10% provide dental treatment services on site.³⁰ The percentage of SBHCs providing preventive dental services is higher, with 20% providing dental exams, 25% providing sealants, and 23% providing dental cleanings. **Figure 5** shows the breakdown of oral health services provided at U.S. school-based health clinics (n=1,096).³¹

Figure 5. Oral Health Services Provided at U.S. school-based health centers³¹



Numerous challenges exist for developing on-site dental operatories in schools with either stationary or portable equipment, including personnel, funding, space, and maintenance. Therefore, numerous schools have linked with private and FQHC dental providers to treat students off site, while often still providing preventive services such as sealants and fluoride varnish on site.

Public Health Supervision of Dental Hygienists

The Iowa Dental Board allows dental hygienists to practice under general (off-site) supervision of a dentist. By having a written supervision agreement with a dentist, hygienists can provide preventive outreach services in public health settings without patients first needing to be examined by a dentist. Additionally, the dentist is not required to provide treatment services to those patients seen by the hygienist under public health supervision.³²

In 2011, 76 Iowa dental hygienists had supervision agreements with 47 dentists. The same year, those hygienists provided 35,627 sealants, 61,568 open mouth screenings, 41,393 fluoride applications, and provided oral health education to 27,855 clients.³³

Financing of Oral Health Care in Iowa

How much does it cost?

In 2009, dental services accounted for 4.5% of the \$20.8 billion in health care spending in Iowa.³⁴ The Iowa Department of Human Services estimated spending \$66.2 million on dental services for Medicaid enrollees alone during 2012.³⁵ In 2009, the U.S. spent approximately \$102 billion on dental services – 4.9% of all health care expenditures.

Iowa and the U.S. spend approximately 5% (\$932 million and \$102 billion, respectively) of total healthcare costs on dental services.

Who pays?

The amount of total dental expenditures reflects costs paid by government insurance programs, private insurance companies, and individuals out of pocket. Of the 54% of Iowans who had a dental expense in 2007, 48% of expenditures were paid out of pocket with an average \$394 per person.³⁶ In comparison, only 20% of overall health services in Iowa were paid out of pocket that same year, demonstrating that citizens bear a high proportion of the cost of dental care compared to other healthcare services.³⁷

Similar patterns are seen nationally, with 50% of dental expenditures in 2008 paid out of pocket and 42% were paid by private insurance.³⁸ The proportion paid out of pocket for dental services nationally is considerably higher than for medical services, as out of pocket payments made up only 12% of all healthcare expenditures in 2007.³⁹

48% of dental costs in Iowa are paid out of pocket, compared to 20% of total health costs.

For many people, having dental coverage strongly affects the ability to finance, and thus utilize, dental services. Dental insurance is quite distinct from medical and other forms of insurance in several ways: it is generally used for regular care rather than catastrophic events, copay/coinsurance requirements are generally higher, and plans may only cover a limited set of services rather than comprehensive benefits, paying only up to an annual maximum amount. Therefore, because individuals are often required to pay a considerable amount out of pocket even when they have dental benefits, dental insurance is more comparable to a cost-sharing or pre-paid health program than insurance per se. However, for the sake of consistency with other sources, the term dental insurance will be used in this document.

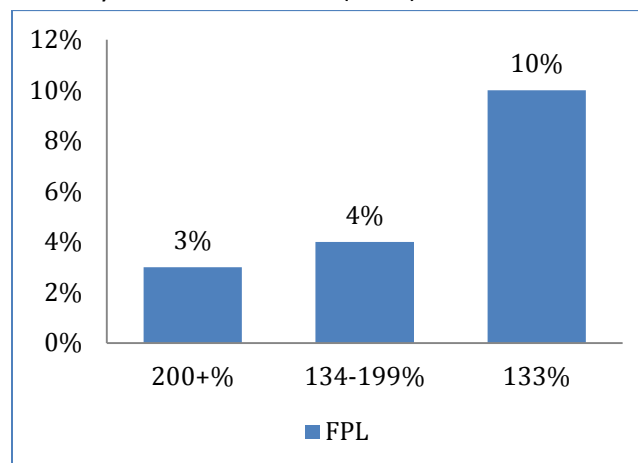
Access and Utilization of Oral Health Services

Many factors influence access to dental care, including insurance coverage, income, urban/rural location, and other factors such as education and race/ethnicity. The leading causal factor that impacts access to dental care continues to be cost, which is directly related to both income and insurance coverage.

10% of Iowa children living under 133% of the federal poverty level were reported to have an unmet need for dental care in 2010.

Overall, 5% of all children under 18 in Iowa could not get the dental care they needed sometime in the past 12 months.⁴⁰ There was an inverse relationship, however, between unmet dental need and income level (**Figure 6**).⁴¹ Lower income children in Iowa were most likely to have been stopped from receiving dental care in 2010. For children in Medicaid, the proportion was even higher, with 19% having an unmet need for dental care in 2011.

Figure 6. Children in Iowa whose parents reported needing dental care in the past year and didn't get it because they could not afford it (2010)⁴⁰

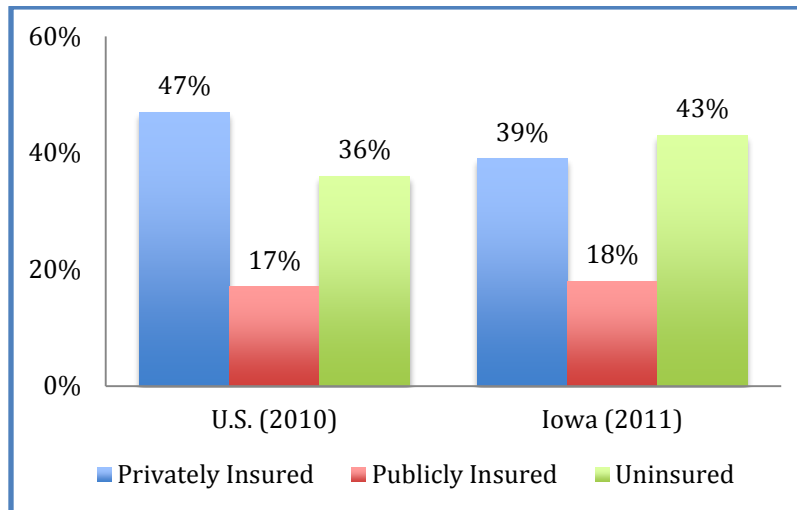


Among low income adults, 13% of Medicaid enrollees had an unmet need for dental care in 2011. This rate, however, was significantly higher for adults in the IowaCare program where over one third had an unmet need in the previous 6 months. IowaCare is for adults up to 200% of the FPL who do not qualify for Medicaid and have a very limited dental benefit.⁴² The most common reason for this unmet need was not being able to afford the dental care.⁴²

Who has dental insurance?

Approximately 43% of Iowans were dentally uninsured in 2011 – slightly higher than the national rate (**Figure 7**).⁴³ The rate was significantly lower for children, however, in large part because Medicaid and the Children’s Health Insurance Program (CHIP) are required to provide comprehensive dental coverage for children. Thus in Iowa, 82% of children had some form of dental insurance in 2010 – a 7% increase since 2000.⁴⁴

Figure 7. U.S. and Iowa Populations by Dental Insurance Status



Over 176 million Americans had some form of dental insurance in 2010. Forty-seven percent of all Americans have coverage through a private insurer and 17% through a public program (**Figure 7**). Although 17% of Americans are publicly insured, not all adults have full dental coverage as Medicaid dental benefits vary considerably by state. Therefore, this is likely an overestimate of actual dental coverage for publicly insured adults. Thirty-six percent of Americans had no form of dental insurance in 2010.^{45,46,47}

Approximately 90% of American children have medical insurance, including almost 31 million children covered by Medicaid.⁴⁸ However, almost 30% of U.S. children with private medical insurance lack dental coverage.⁴⁹

18% of Iowa children have no form of dental coverage.

Dental insurance coverage among adults differs significantly. In 2007, 60% of U.S. adults age 21-64 had private dental coverage, 5% had public, and 35% had no dental coverage at all.⁵⁰ These proportions have not changed in the past 10 years.

Private Insurance Coverage

In Iowa, approximately 40% of the state's population (1.2 million) has private dental insurance.⁵¹ Among Iowa children, 54% have private dental insurance. Nationally, 46% of the total population (143 million people) was enrolled in a private dental insurance plan in 2010.⁵¹

Characteristics of private dental coverage among Iowans (2010):⁵¹

- 58% were enrolled in a dental preferred provider organization (PPO)
- 36% covered by an indemnity plan
- 0.2% were enrolled in a dental health maintenance organization (HMO)
- 7% were covered by another type of private plan

Delta Dental of Iowa is the largest private dental insurance provider in the state, insuring over 630,000 adults and children. It is one of nine private dental insurance providers in Iowa, and has the largest provider network with 1497 participating dentists.⁴³

Public Insurance Coverage

Three public programs are available in Iowa for low-income individuals who are unable to obtain private dental insurance: Medicaid for adults and children, Iowa's Children's Health Insurance Program (CHIP), called **hawk-i**, and IowaCare for adults up to 200% FPL. Eligibility requirements, utilization, and scope of dental coverage for, Medicaid, **hawk-i** and IowaCare are discussed below.

In 2009, 80% of Iowa dentists had at least one paid claim by either Medicaid or CHIP, and 30% had greater than \$10,000 in paid claims from either Medicaid or CHIP.⁵² Nationally, approximately 38% of U.S. general dentists saw any patients with public coverage during 2009.⁵³

Data for insurance coverage of elderly Iowans are not currently available.

Medicare provides comprehensive medical coverage and prescription benefits for elderly Americans over age 65. The program, however, does not cover dental care. Two rare exceptions are 1) cases of head and neck cancer patients receiving radiation and 2) cases of leukemia. For the former, Medicare covers "tooth-preserving care and extractions" with the intention of preventing osteoradionecrosis, a condition of nonvital bone formation in response to tissue injury near the site of radiation therapy. For the latter, it covers "dental examination, cleaning of teeth and treatment of acute infections of the teeth or gums" prior to chemotherapy with the intention of preventing septicemia, or bacteria in the blood.^{54,55}

Medicaid

Medicaid is a public insurance program for low-income children and adults; eligibility criteria vary by state and are expressed as a percentage of the federal poverty level.⁵⁶ Of the 431,000 Iowans enrolled in Medicaid as of June 2011, 49% were children, 23% were adults, and 28% were either aged or disabled.⁴⁷ Each state is required to provide Medicaid-enrolled children with comprehensive dental benefits through the federally mandated Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) program. Through the EPSDT program, all medically necessary dental services are covered free of charge to Medicaid-enrolled children with no copayment required.⁵⁷

In 2011, 14% of Iowa's population was enrolled in Medicaid. Of these, 49% were children, 23% were adults, and 28% were either aged or disabled.

Medicaid insurance makes up a significant proportion of coverage for children in Iowa: 18.2% of Iowa's children get their dental coverage through Medicaid.⁵⁸ In 2012, 234,000 Iowa children were enrolled in Medicaid for at least one month.⁵⁹

18% of Iowa's children receive dental coverage through Medicaid, and 4% receive it through hawk-i.

States are not required to provide comprehensive dental coverage for their Medicaid enrolled adults, as they are for kids. Iowa has chosen to provide a relatively comprehensive set of dental services for adult enrollees however. Dental benefits for Medicaid-enrolled adults in Iowa in 2012 include:⁶⁰

- *Routine exam* – once every 6 months
- *Teeth cleaning* – once every 6 months
- *Bitewing x-ray* – once every 12 months
- *Complete x-ray* – once every 5 years, unless there is a need
- *Crown* – 2 crowns per year
- *Sealant* – once per tooth
- *Dentures* – once every 5 years
- *Complete exam* – once per dental provider
- *Periodontal scaling and root planning* (with prior authorization)
- *Restorative services*

Nationally, dental benefits for adult Medicaid-enrollees varies substantially by state (includes District of Columbia) (2007):⁶¹

- 6 states provided no dental benefits
- 16 states provided coverage for dental emergencies only
- 13 states excluded at least one service category, such as periodontal treatment and advanced restorative services (including Iowa)
- 16 states included all dental service categories

By 2009, the number of states with no adult dental benefits had increased to seven.¹

Children's Health Insurance Program (CHIP)

hawk-i, Iowa's Children's Health Insurance Program (CHIP), covers children whose parents cannot afford health insurance for them and whose incomes are not low enough to be covered by Medicaid (up to 300% FPL). Parents pay a low monthly premium, up to \$40, based on household income.⁶² In order to enroll, families must meet certain income limits. **hawk-i** is administered by Delta Dental of Iowa, where it is marketed as "Delta Dental Premier". Services are covered when they are provided by Delta Dental Premier-participating dentists. A wide range of comprehensive services are covered with no deductible or coinsurance payments required. Unlike Medicaid, however, there is a \$1000 annual maximum amount it will cover for dental care.⁶³

In 2010, 3.5% of children in Iowa received their dental coverage through **hawk-i**.⁵⁸ Enrollment increased from 36,595 in 2011 to 40,643 in 2013.⁶⁴

IowaCare

IowaCare is a public insurance benefit that covers adults 19-64 years of age with incomes below 200% of the federal poverty level who are not categorically eligible for Medicaid and do not have access to other health insurance. This benefit also covers pregnant women and their newborns with an income below 300% FPL and medical bills that reduce their income to 200% or less of the FPL.⁴²

In 2010, 57,472 people were enrolled in IowaCare for at least one month, up from 25,204 in 2006. IowaCare enrollees can receive limited dental services at only two locations: Broadlawns Medical Clinic in Des Moines and University of Iowa Hospitals and Clinics (UIHC) in Iowa City. At UIHC, services are generally limited to extractions. Patients at Broadlawns may receive limited restorative services in addition to extractions.

Where are the shortage areas?

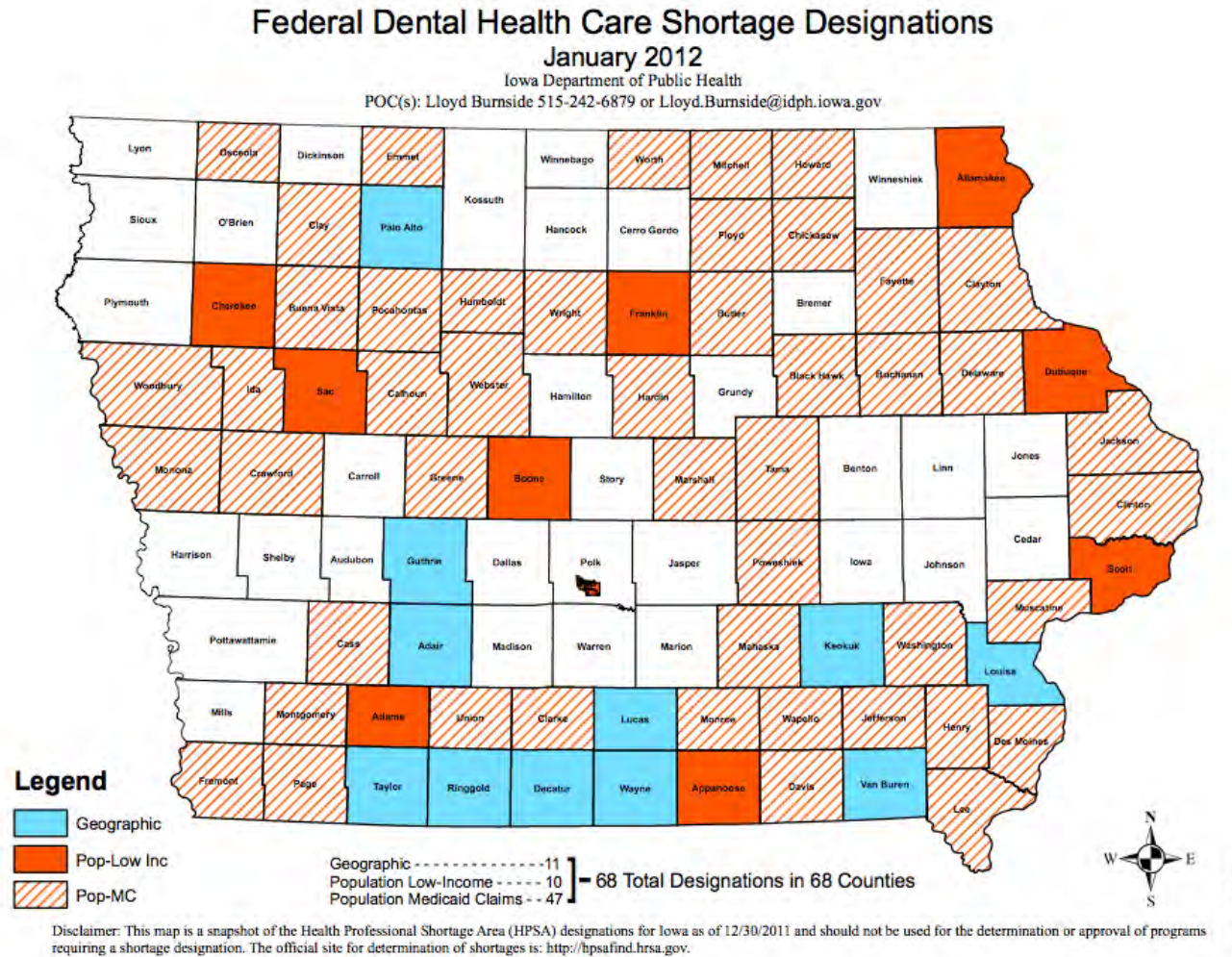
The overall population-to-dentist ratio in Iowa is 2,033:1. The Health Resources and Services Administration (HRSA) considers a ratio of 3,000:1 to be meeting the area's needs for dental providers. However, despite Iowa's favorable ratio, there is a maldistribution of dentists relative to the population. As a result, Iowa has 118 dental health professional shortage areas (HPSAs), which include shortage areas based on geographic (counties and census tracts), population (low-income and Medicaid-enrolled), and facility designations (**Figure 8**).

Of these HPSAs, 11 are entire counties, 10 are based on low-income populations, 47 are based on Medicaid-eligible populations, and 50 are facility designations. Taking into account all three types of HPSAs – geographic, population, and facility - approximately 14% of Iowa's population resides in a dental HPSA.⁶⁵

Compared to the rest of the U.S., Iowa has the 13th highest number of dental HPSAs and has the 28th highest percentage of people residing in a shortage area. In order to remove all HPSA designations, Iowa would need to recruit an additional 55 dentists.⁶⁵

In order to remove all HPSA designations, Iowa would need to recruit an additional 55 dentists.

Figure 8. Dental health professional shortage areas (HPSAs) in Iowa (2012)



Source: http://www.idph.state.ia.us/hpcdp/common/pdf/health_care_access/hpsa_dental_map.pdf

Dentist Recruitment and Retention Programs

The following are examples of programs designed to increase the recruitment and retention of dentists in the state, particularly in underserved areas.

Delta Dental of Iowa

Delta Dental offers a loan-repayment program for dentists willing to practice in underserved counties (**Figure 9**). A \$50,000 award is granted over a three-year period to dentists required to practice in one of 68 underserved counties. Funded dentists must allocate 35% of their services to underserved populations.

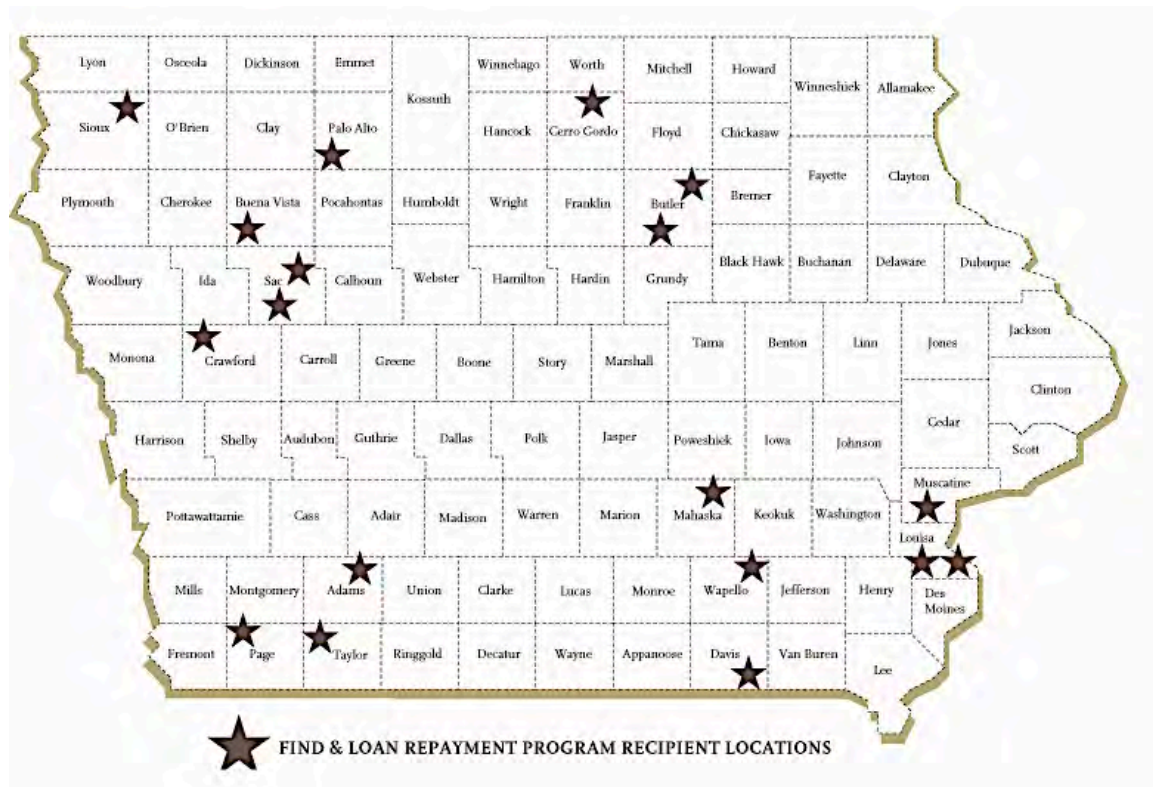
Fulfilling Iowa's Need for Dentists (FIND)

The FIND program is an extension of Delta Dental's loan repayment program. It requires communities seeking private practice dentists to develop an economic incentive package of \$25,000, which is matched by state or federal funds and then added to the \$50,000 Delta Dental award for a total of \$100,000 toward loan repayment. The economic incentive package can include loan repayment as well as other incentives such as low- to no-interest loans from a local bank, donated building, or land, etc.⁶⁶ Service requirements are the same as the Delta Dental award, except the grant is distributed over the course of five years instead of three.

Primary Care Recruitment and Retention Endeavor (PRIMECARRE)

The Iowa Department of Public Health supports PRIMECARRE, a general health professions loan repayment program, which offers two-year grants that provide up to \$50,000 for full-time and \$25,000 for part-time dentists and other healthcare professionals, including dental hygienists, to work in public or non-profit facilities in federally-designated HPSAs. Dentists and dental hygienists compete against several other health professionals for these funds

Figure 9. Delta Dental of Iowa and FIND Loan Repayment Recipient Locations (2011)⁶⁷



National Health Service Corps (NHSC)

NHSC provides loan repayment for dentists to work at an approved facility – generally CHCs advertising for new employees. The amount of repayment depends on 1) the HPSA score of the facility (i.e., relative need for a provider in the community), 2) the number of years of service commitment, and 3) whether the individual is employed full-time or half time.⁶⁸ As of June 1, 2012 there were no vacant NHSC-eligible dentist positions available in Iowa.⁶⁹

University of Iowa College of Dentistry Office of Iowa Practice Opportunities (OIPO)

In 2006, The University of Iowa College of Dentistry created a program designed to match graduating dental students and alumni with communities and practices in need of dentists. This program maintains a website with listings of available practice holdings, holds an annual practice opportunity fair, and links students with volunteer dentist mentors. The OIPO is also a key stakeholder in the FIND Program (described above). As of June 2012, the OIPO has facilitated 141 placements for Iowa practices in 63 communities in the state; 70 of these dentists were placed in rural locations.⁷⁰

Who is utilizing services?

Children/Adolescents

In Iowa, several surveys have found that approximately 92% of children under age 18 have a dentist of record or one main place where they receive dental care.^{44,71} However, there are significant differences in utilization among privately insured, Medicaid-enrolled, and uninsured children.

In a 2010 survey of third-grade students, 81% of privately insured children had a dental visit in the past 6 months, but only 58% of self-pay children did.⁷¹ In 2011, 54% of Medicaid-enrolled children received a dental service from a dental office/clinic, Title V (Maternal and Child Health) center or physician's office, while 45% received a dental service from a dental office/clinic alone.⁷²

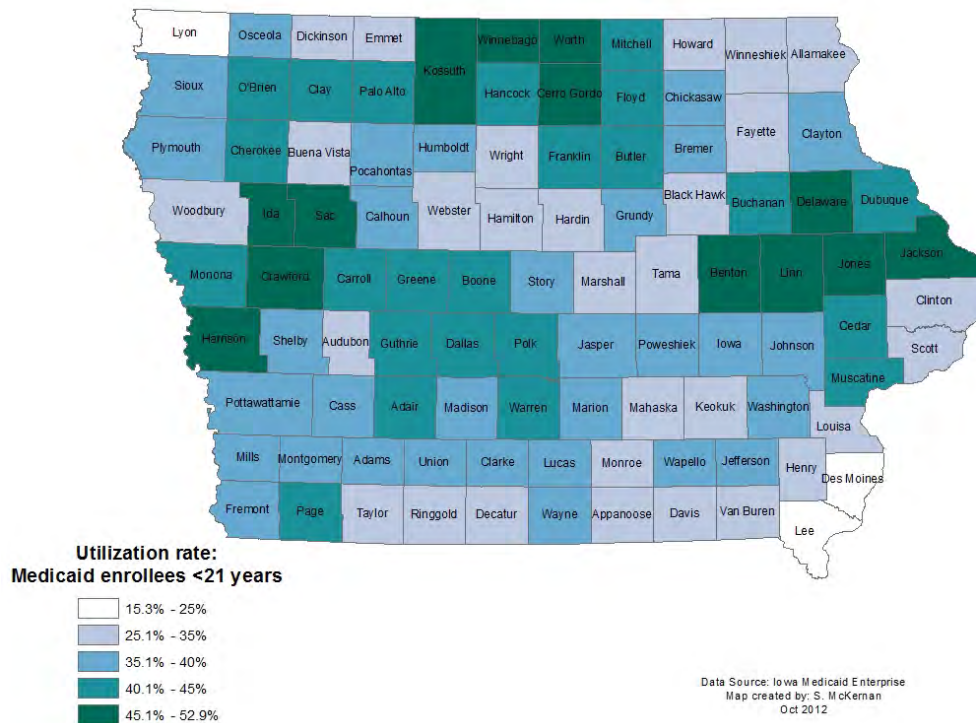
In 2005, 46.1% of Iowa's 4,385 Medicaid-enrolled children who were identified as having an intellectual or developmental disorder (IDD) received preventive dental care, compared to 48.6% of non-IDD Medicaid-enrolled children.^{73,74}

Utilization varies by age as well; among all Iowa children age 0-4 in 2010, 29% had never had a dental visit, and only 46% of Medicaid-enrolled children age 0-5 received a dental service that same year.^{44,75}

In 2011, utilization rates for dental care among Medicaid-enrolled children under age 21 ranged from 15% to 53% per county in Iowa. Average dental utilization at the county level was 38%. Des Moines County had the lowest utilization among Medicaid-enrolled children, while Jones County had the highest utilization rate (**Figure 10**).¹²

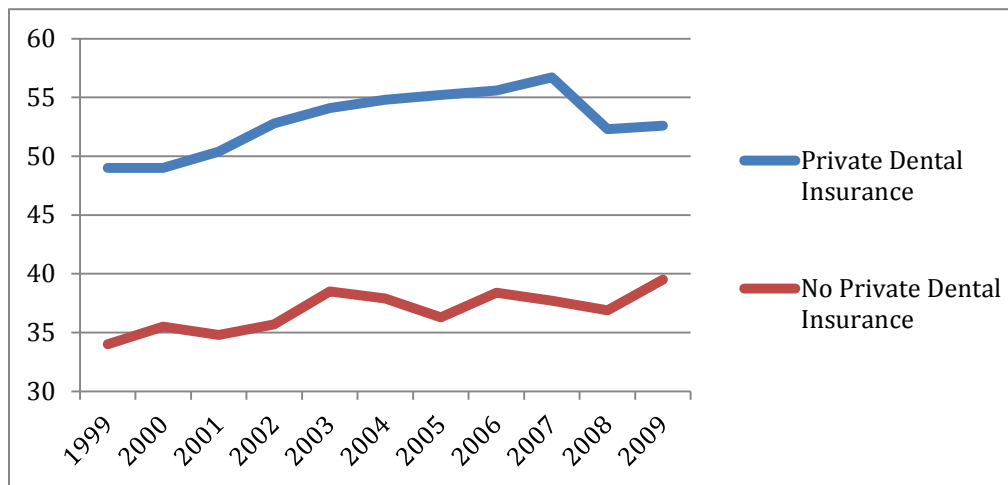
54% of Medicaid-enrolled children received a dental service in 2011.

Figure 10. Percent of Medicaid-enrollees under age 21 who received a dental service (2011)



In the U.S., more than 40% of Medicaid-enrolled children and adolescents received a dental service in 2010.⁵³ This utilization rate for Medicaid-enrolled children has been increasing since 2000, when only 27.1% of Medicaid-enrolled children received a dental visit nationwide.^{53,76} Despite these increases, there have continued to be disparities in utilization of dental services between privately insured and non-privately insured children during this period (**Figure 11**).⁷⁷

Figure 11. Percent of privately and non-privately insured children age 0-18 with at least one dental visit, United States, 1999-2009



The Children’s Dental Health Project reported that Medicaid-enrolled children in the U.S. received dental services from the following sources (2009):⁵³

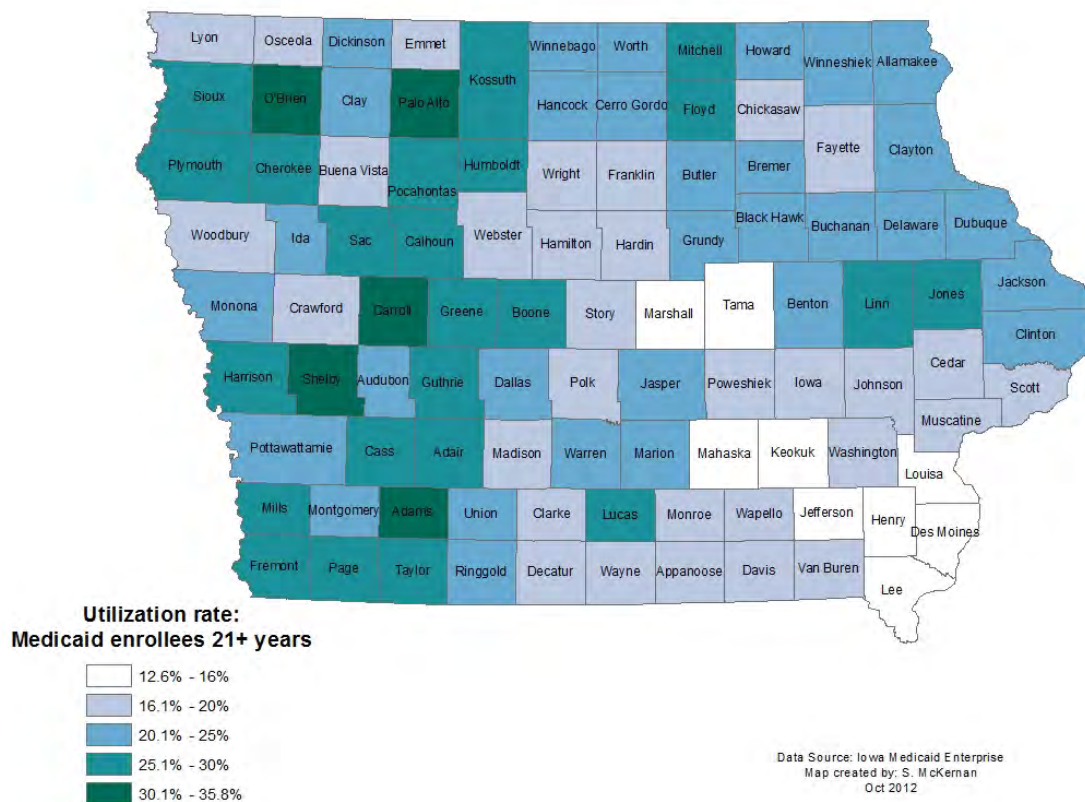
- 34% from private general dentists
- 21% from dental management companies
- 19% from private pediatric dentists
- 10% from safety net sites (including FQHCs, school-based health centers, and non-FQHC community health centers and van programs)
- 4% from dental trainees
- 12% from unattributed sources

Adults

In 2010, 76% of all adults in Iowa reported having a dental visit within the past year and 74% had their teeth cleaned by a dentist or dental hygienist.⁷⁸

In 2012, utilization rates for dental care among Medicaid-enrolled adults age 21 and older ranged from 13% to 36% per county in Iowa. Average dental utilization at the county level was 22%. Marshall County had the lowest utilization among Medicaid-enrolled adults, while Adams County had the highest utilization rate (**Figure 12**).¹²

Figure 12. Dental utilization among Medicaid-enrollees age 21 and older (2011)



In 2009, 12% of Medicaid-enrolled adults in the U.S. reported having difficulty obtaining necessary dental care, whereas only 4% of privately insured adults did.⁷⁹

In 2011, 53% of Medicaid-enrolled adults in Iowa had visited a dentist in the past year.⁸⁰ Among Medicaid-enrollees identified as having an intellectual or developmental disorder (IDD) (2005), 60% reported having a dental visit in the past year.⁷⁴ Among pregnant women covered by Medicaid, 44% did not receive any dental care during pregnancy (2011).⁸¹

Of the 44% of pregnant women who did not receive any dental care during pregnancy: 32% do not routinely go to a dentist, even when not pregnant; 12% found that it is not important to get dental checkups when pregnant, 13% did not have dental insurance and/or felt it costs too much, and 10% could not take time off work or were too busy to seek dental care.⁸¹

Among IowaCare enrolled adults, 9% reported receiving dental services in the past 6 months.⁴² Of those with a visit, 59% had a tooth extracted.

Utilization rates for various other groups in Iowa are as follows:⁸²

- Less than high school education (2008): 48% visited a dentist, 53% had their teeth cleaned
- Income <\$15,000 (2008): 48% visited a dentist, 48% had their teeth cleaned

Thirteen percent of MediPASS-enrolled adults reported unmet need for dental care in 2011.^{80,1} For IowaCare-enrolled adults, over one third reported an unmet need.⁴² The most common reasons for unmet need were inability to find a dentist who accepts Medicaid, inability to afford services, and needing services not covered by their insurance.

With the implementation of additional provisions of the Affordable Care Act coming into effect in 2014, approximately 150,000 Iowa adults will be newly eligible to enroll in Medicaid. A significant number of these adults will now be eligible for dental coverage where they most likely did not before. A national analysis of dental utilization found that when previously uninsured adults gained dental coverage, the likelihood of having a dental visit increased up 10%.⁸³ A similar increase in utilization of dental services by adults can be anticipated among new Medicaid enrollees in Iowa after 2014.

Elderly

Very little up-to-date data are currently available on utilization and access to dental care for Iowa's non-institutionalized elderly population. In 2008, among adults age 65 and older who had natural teeth and had ever visited a dentist, 79% had their teeth cleaned in the past year.⁸⁴

In 2011, 74% of 8,777 Medicaid-enrolled homebound elderly did not receive a dental service in Iowa.⁸⁵ The same year, 84% of Iowa's 29,707 non-homebound Medicaid-enrolled elderly (includes institutionalized and non-institutionalized) did not receive a dental service. In 2012, directors and administrators at nursing homes and long-term care facilities in Iowa were

¹ MediPASS is a primary care case management program within Medicaid for adults and children residing in counties with this program and who are eligible for the Temporary Assistance for Needy Families (TANF) program; this group makes up approximately 80% of Medicaid enrollees in Iowa (Medicaid.gov).

surveyed about oral health services for their residents. When asked if they were able to easily obtain dental services for their residents, 46% said no, and 37% reported having an oral health professional provide dental services in their facility during the previous 12 months.⁸⁵

Oral Health Status of Iowans

Children/Adolescents

Oral health measures for very young, WIC-enrolled children in Iowa are compared to young, Head Start-enrolled children in **Table 7**. These groups represent low-income and traditionally underserved young pediatric populations.

Table 7. Measures of dental disease in WIC- and Head Start-enrolled children in Iowa^{86,87}

	Untreated tooth decay	Decay experience	Demineralized enamel
WIC-enrolled children (under 4 years), 2010	11%	15%	21%
Head Start-enrolled children (under 5 years), 2009	14%	29%	35%

Surveillance for school-aged children in Iowa is conducted via two primary mechanisms: 1) school dental screenings required before a child can enter kindergarten and 9th grade, and 2) an open-mouth survey of third-graders conducted by the IDPH.

School dental screening forms from the 2010-2011 school year found that 84.5% of Iowa's kindergarteners and 9th graders had no obvious dental problems, 13.5% required dental care, and 2% required urgent dental care.⁸⁸

The IDPH's Iowa Oral Health/Sealant Prevalence survey is an open-mouth survey of third graders attending a random sample of elementary schools in the state of Iowa.⁸⁹ The survey assesses the prevalence of sealants on first permanent molars as well as caries prevalence (untreated caries and filled teeth). The target sample is 5% of third graders across the state. Parental consents for screening also include questions about race/ethnicity, payment source for dental care, time of last dental visit, ability to access care, whether each child has a dentist, and participation in the free/reduced lunch program. Screenings are conducted by calibrated dental hygienists using visual criteria only.⁸⁹

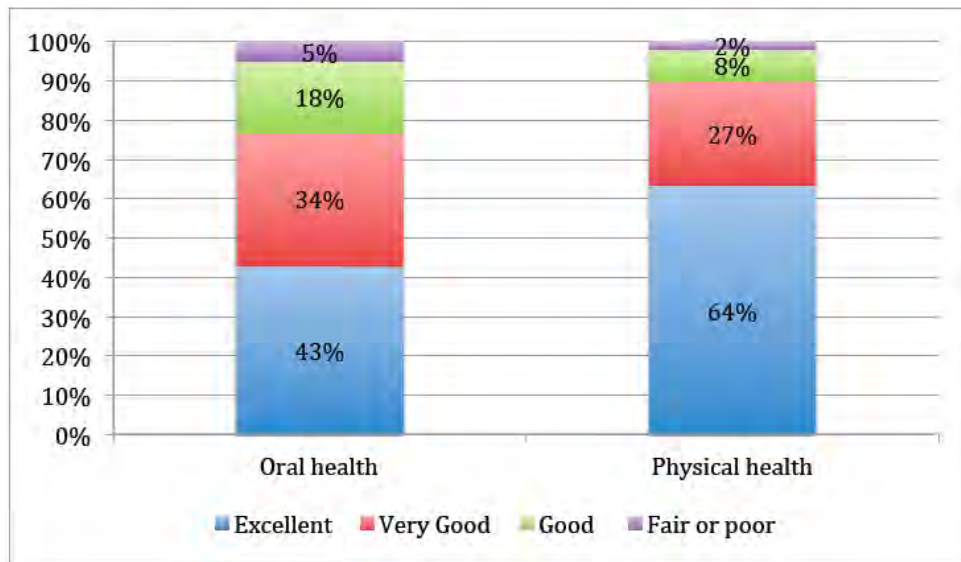
In 2012, the open-mouth survey of Iowa third-graders found that 14% had untreated tooth decay.⁹⁰ Half of the children had prior caries experience (any decayed, missing, or filled teeth). Prevalence of untreated decay varied with socioeconomic status and insurance coverage:

- 18% of children of low socioeconomic status (SES) had untreated decay versus 11% of children of high SES
- 18% of Medicaid children had untreated caries versus 13% with private insurance and 13% of self-pay

Nationally, Iowa had the lowest proportion of third graders with untreated tooth decay – 13.2% - out of 37 states that reported data in 2008.⁹¹

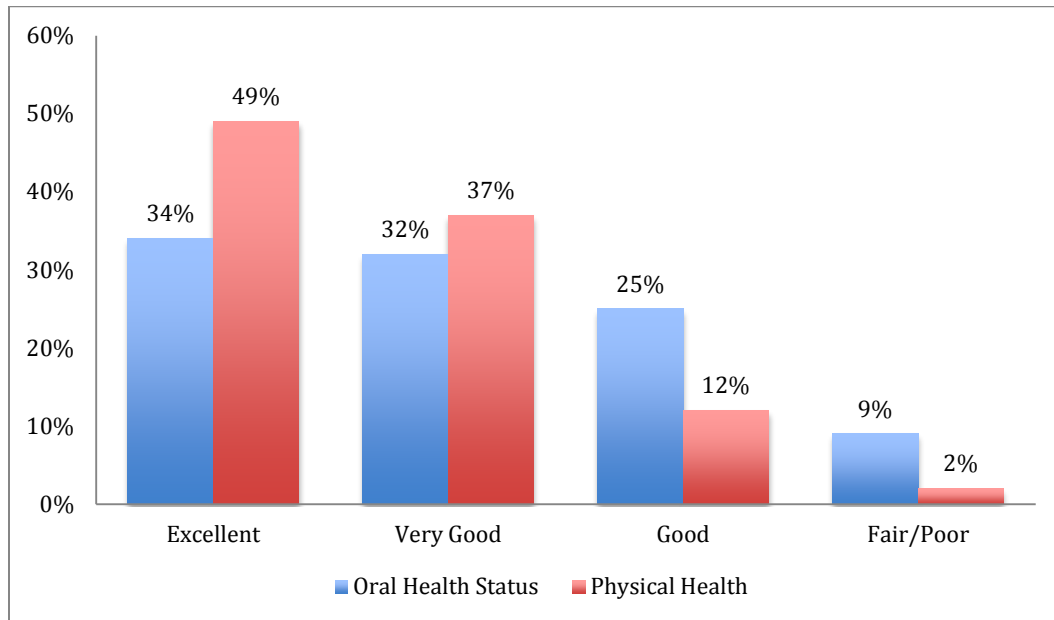
In 2007, among Iowa children 1-17 years old, 10% reported a history of toothache in the past six months. Seventy-seven percent of Iowa parents rated their child's oral health as excellent or very good, and 5% rated it as fair/poor. However, parents rated their children's oral health as poorer than their physical health in general (**Figure 13**). There were additional disparities in oral health status based on income: 10% of children from families earning <134% of the FPL were reported to have fair or poor oral health, compared to 0% of children from families earning over 200% of the FPL. There were also disparities based on race/ethnicity, as only 25% of parents of Hispanic children rated their child's oral health as excellent/very good, compared to 44% of parents of White children.⁹²

Figure 13. Parent reported child oral health status compared to physical health status



For children in Medicaid, the parent-reported oral health status for children in the Iowa Medicaid program in 2011 is shown in **Figure 14**. These children were reported to have a lower oral health status than children statewide and their oral health status was reported to be lower than their physical health as with all children in Figure 13.

Figure 14. Oral and Physical Health Status of Children in the Iowa Medicaid Program, 2011



Parent-reported data. Source: Evaluation of the Iowa Medicaid Managed Care Program: Results of 2011 Consumer Survey. Available at: <http://ppc.uiowa.edu/publications/evaluation-iowas-medicaid-managed-care-program-consumer-perspective-results-2011-survey>.

Adults & Elderly

In 2010, 38% of Iowa adults had had a permanent tooth extracted.⁹³ Among IowaCare enrollees in 2011, 35% reported any oral problems. However, 61% of IowaCare enrollees perceived their oral health to be fair or poor versus 37% of adult Medicaid enrollees.⁴²

In a 2011 Iowa survey of pregnant women, 20% said their gums bleed a lot, 13% had a toothache, and 5% indicated that they had a tooth that needed to be pulled.⁸¹

In 2010, 17% of elderly adults over age 65 reported having had all of their natural teeth extracted, and 42% had lost six or more teeth.⁹⁴ Nationally, 25% of elderly adults have lost all of their teeth.⁹⁵ Data on measures of oral health for Iowa adults and elderly adults are lacking. However, it is evident that Iowans at the lower end of the socioeconomic spectrum experience more oral disease than those at the higher end.

State Oral Health Promotion/Disease Prevention Programs

Head Start

In 2007, Head Start, a federally funded child development program for low-income 3-5 year old children, served 7,915 children in 98 Iowa counties at 18 programs.⁹⁶ Head Start is required to provide health services, including oral and mental health, either on site or via referrals.

In 2009, a needs assessment of Iowa's Head Start programs was conducted in order to determine the difficulty in meeting certain program requirements as well as evaluating collaborative partners. Linking children to dental homes that serve young children was ranked as the most difficult activity out of 13. On the other hand, "partnering with oral health professionals to provide fluoride varnish applications" ranked the second least difficult activity.⁹⁷

Additionally, three oral health issues came up repeatedly for several counties:⁹⁷

- dental homes (Clay, Marion, Poweshiek, Sheldon, Sibley, Tama, Warren)
- partnering with oral health professionals (Clay, Page, Poweshiek, Sheldon, Sibley, Tama), and
- partnering to provide fluoride varnish (Page)

These results led the authors to conclude that "the weakest health partnerships are among those services less demanded, except for oral health needs." The authors cite difficulties in dentists accepting young children and Medicaid-enrolled children, as well as finding dentists to serve on Health Services Advisory Committees (HSACs).⁹⁷

These findings indicated a strong relationship between existing programs, as well as a continued need for dental care coordination and dentist participation in both Medicaid and HSACs.

Fluoride Varnish Program

The Iowa Department of Public Health's fluoride varnish program was implemented in 1999 and provides Title V MCH services through contracted regional public and private non-profit agencies.⁹⁸ Dental hygienists and nurses employed by the agencies provide screenings and fluoride varnish applications to low-income children and pregnant women.

This varnish program allows Medicaid to reimburse agencies for up to three fluoride varnish applications per client per year. All non-dental health professionals must receive training before being able to bill Medicaid for fluoride varnish. Clients should have at least one of the following risk factors in order to receive the fluoride treatment, although this is not regulated: visible plaque on primary incisors, carious lesions, white spot lesions, history of decay, and/or low socioeconomic status.⁹⁸

I-Smile™ Dental Home Project

The I-Smile™ Dental Home Project, operated through IDPH, was created in 2006 in response to a Medicaid reform initiative, which mandated that Medicaid recipients age 12 and younger have a dental home, dental screenings, and preventive care required by the EPSDT program – ensuring that Medicaid-enrolled children have early and regular dental care. The I-Smile program objectives are to:

- Improve the dental support system for families through oral health education, promotion, and outreach
- Improve the dental Medicaid program by increasing dentist participation, reimbursements to non-dental providers for screenings and fluoride varnish applications, and reinstating periodontal treatment coverage for adults
- Implement recruitment and retention strategies for underserved areas by creating a student loan repayment program for dentists and dental hygienists
- Integrate dental services into rural and critical access hospitals⁹⁹

The program now operates through 22 private non-profit and public Title V agencies in Iowa who have hired 24 dental hygienists to serve as regional I-Smile™ coordinators (**Figure 15**).

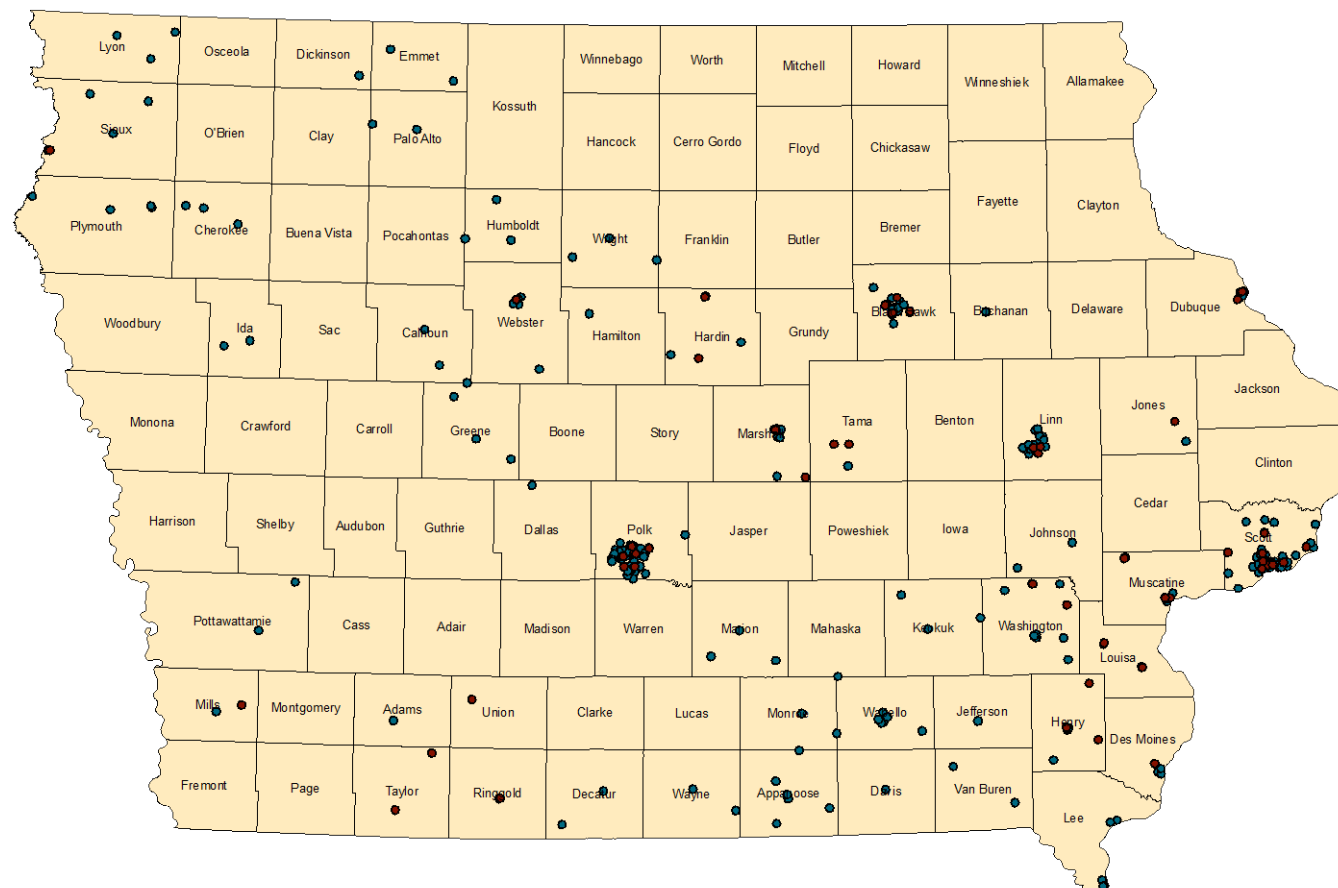
I-Smile™ coordinators are dental hygienists who serve as “liaisons between community organizations, families, health care providers, and dentists to establish dental homes for at-risk children”.¹⁰⁰ Their responsibilities include “developing partnerships, assessing local need, program planning, training of non-dental health care providers, and promoting oral health”.¹⁰⁰ The annual budget for this program is approximately \$2.3 million, which covers administrative costs at the state level and the contracts with individual Title V agencies.

Supplemental Nutrition Program for Women, Infants, and Children (WIC)

School-based Sealant Programs

Additional sealant programs are administered by various agencies throughout the state (**Figure 16**).

Figure 16. School Based Sealant Programs in Iowa (2012)



Legend

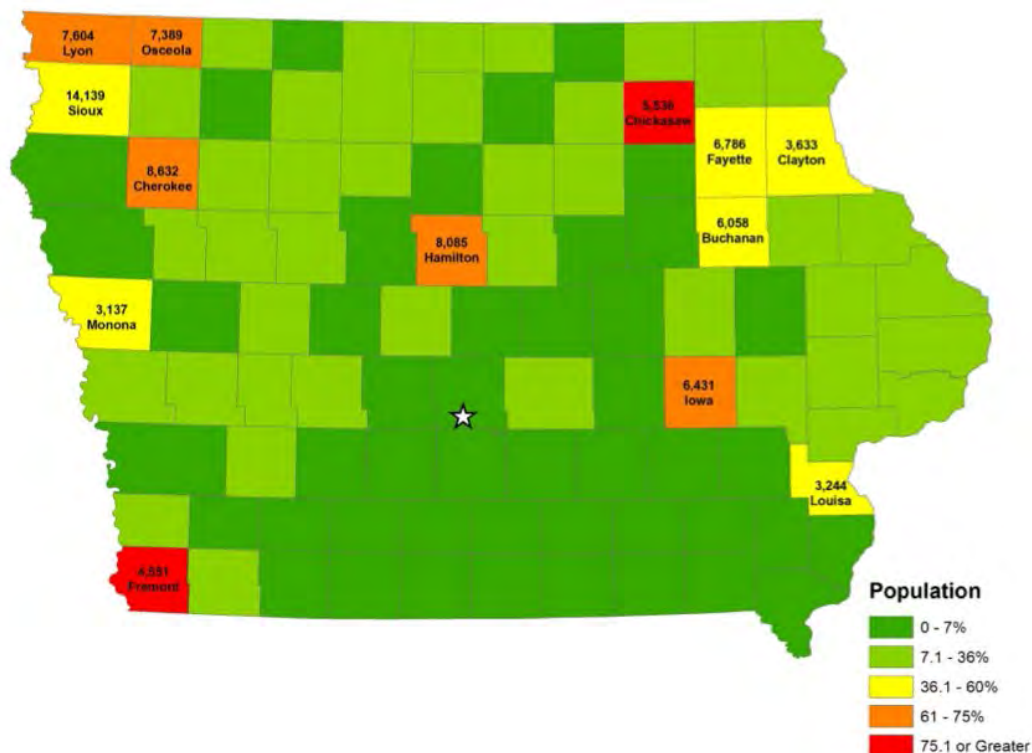
- Middle Schools - 50
- Elementary Schools - 234

Statewide Community Water Fluoridation Status

As of December 2010, Iowa had the 10th highest proportion of residents on community water systems (CWS) receiving optimally fluoridated water compared to other states in the U.S. – 92.3%.¹⁰⁵ One of Healthy Iowans 2010 goals, to “increase to at least 93% the proportion of the population served by community water systems with optimally fluoridated water”, was therefore nearly achieved.¹⁰⁶

Among the entire population – including people on CWS and those with private wells – 83% received optimally fluoridated water from a CWS as of February 15, 2012.¹⁰⁷ Nineteen of Iowa’s 99 counties have 100% of their residents receiving optimally fluoridated water from a CWS, and 13 counties have at least 36% of their population receiving fluoride-deficient water from a CWS (**Figure 17**). By total population, 14 counties have at least 5,000 people receiving fluoride-deficient water from a CWS. In general, the smaller the CWS, the less likely it is to optimally fluoridate its water, as 58% of very small (serving 25-500 people) CWSs are fluoride-deficient versus 0% of very large (over 100,000) CWSs.

Figure 17. County population not receiving optimally fluoridated water from a CWS



Source: Community Water Fluoridation in Iowa: Presentation given by Maren Lenhart from the Iowa Public Health Association on 10 July 2012.

Although Iowa is positioned quite well in terms of access to optimally fluoridated water for its residents, it is not immune to movements against fluoridation. In a 2012 survey of community leaders and water operators, four water operators (3% of respondents) and five community leaders (6%) indicated that their jurisdiction was considering discontinuing their fluoridation program.¹⁰⁷

The most common reasons for considering discontinuation were budget constraints, the fact that naturally occurring fluoride levels meet new CDC recommendations, and that fluoride is widely available in other products such as toothpaste and mouth rinse. For those who cited budget constraints as a reason for considering terminating a water fluoridation program, small annual grants of \$10,000 are available from Delta Dental of Iowa for communities demonstrating a need for fluoridation.¹⁰⁸

Impact of the ACA on Dentistry

Components of the ACA that are pertinent to dentistry and the oral health safety net are fall into four broad categories:

- insurance coverage
- workforce and infrastructure
- prevention
- surveillance and research

Insurance Coverage

Increasing the proportion of Americans with health insurance coverage is a cornerstone of the ACA. The law does this in several ways: first, through expanding Medicaid eligibility to all individuals living at or below 138% of the Federal Poverty Level (FPL) (section 2001). Due to the Supreme Court decision that states are not required to expand their Medicaid programs, those states that decide not to will still have a segment of their low-income population without health insurance. For states that do expand their Medicaid programs, large cohorts of adults will become newly eligible for Medicaid. Although not federally required, dental coverage for adults and the level of Medicaid dental coverage will be decided at the state level. Those states that do provide a Medicaid adult dental benefit may see an increase in demand for care by the newly insured.¹⁰⁹

The ACA also will increase insurance coverage through health insurance marketplaces (section 1311). Federally-sponsored online marketplaces for private insurance companies will compete for customers. The market for these plans will mainly be individuals and families without employer-based health insurance coverage, those who do not qualify for Medicaid, and small businesses with fewer than 100 employees. Federal subsidies will be available to help pay insurance premiums for individuals and families earning 138-400% FPL. Insurance plans listed in

the marketplace are not required to incorporate dental coverage, but stand-alone dental plans may participate (sections 1201 and 1302). Additionally, health insurance plans for parents are not required to provide pediatric dental benefits. Pediatric health insurance plans, however, are required to cover oral care (section 1302).¹⁰⁹

Workforce and Infrastructure

Section 5303 of the ACA provides grant opportunities for expanding the primary care dental workforce through training grants for general, pediatric, and public health dentists. The law originally contained a provision for funding demonstration projects for alternative dental health care providers; however funding for this provision has been prohibited from 2010-2013 (section 5304).¹¹⁰

The law calls for expansions of community health centers (CHCs) and school-based health centers (SBHCs) (sections 10503 and 4101, respectively).^{110,111} The Community Health Center Fund (CHCF) is designed to expand and maintain CHCs and includes funding for the National Health Service Corps loan repayment program. In addition, several administrative changes will be made at the federal and state levels that impact dental workforce and infrastructure (sections 4102(c), 5101).

Prevention

In regard to oral disease prevention, the ACA includes funding for a national oral healthcare prevention education campaign, with special emphasis on vulnerable populations (section 4102(a)). It will also provide grants to states for development and maintenance of school-based sealant programs (section 4102(b)).

Surveillance and Research

Finally, several provisions in the ACA impact surveillance and research for oral diseases. Section 4102 specifies new oral healthcare measures to be included in four national surveillance systems: the Pregnancy Risk Assessment and Monitoring System (PRAMS), the National Health and Nutrition Examination Survey (NHANES), the Medical Expenditure Panel Survey (MEPS), and the National Oral Health Surveillance System (NOHSS). Additionally, grants will be made available for research on management of dental caries (section 4102(a)), healthcare delivery systems (section 3501), optimizing delivery of public health services (section 4301), and identification of healthcare disparities (section 4302).

Conclusions

The coming years will bring new challenges and changes to the dental healthcare system in Iowa. This report has identified several factors that will be affected by these changes.

Full implementation of the Affordable Care Act in 2014 will increase the number of individuals in Iowa with dental coverage. Any meaningful increase in access to care for underserved populations is dependent on the private dental delivery system. The private dental workforce in Iowa is currently more active in terms of providing services to Medicaid-enrollees than national estimates, and Iowa's public and nonprofit dental clinics are very active in treating the dental needs of the underserved.

Despite these positive findings, the following areas of concern regarding the safety net were identified:

- A rising number of patients are seen in emergency departments for preventable dental conditions.
- Iowa has the 13th highest number of dental HPSAs in the nation, including 47 designations based on Medicaid populations.
- Significant disparities exist in utilization of dental services based on income, age, and dental insurance.
- Limited information is available about the oral health status of elderly adults in Iowa.

The following observations about oral health in Iowa were noted:

- Iowa has the lowest percentage of 3rd graders with untreated tooth decay (13.2%) in the nation among reporting states.
- Disparities in oral health status exist for children with regard to race/ethnicity, insurance status, and income.
- 61% of IowaCare-enrolled adults reported poor oral health status. This represents a high-need population that will gain access to comprehensive dental benefits under the ACA in 2014 with potentially high demand for dental services.

One method of increasing organization and momentum for addressing these issues and others is the creation of a statewide oral health coalition. Several nearby states, including Nebraska, Missouri, and Illinois have been successful in developing active, effective oral health coalitions to address oral health issues. This highlights a potential area for growth of the oral health community in Iowa.

Iowa has a number of assets that will facilitate addressing some of the issues outlined in this report, including a thriving I-SmileTM program, comprehensive set of adult Medicaid dental benefits compared to other states, and a tightly knit community of dentists, with the majority graduating from the University of Iowa College of Dentistry. The coming years will undoubtedly provide opportunities to leverage these assets for the betterment of the oral health of Iowans and the rest of the nation.

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