INSIDE I-SMILE™
2018
Annual Report on Iowa’s Dental Home Initiative for Children

Keeping smiles healthy since 2006.

Iowa Department of Public Health - I-Smile™ Dental Home Initiative
The I-Smile™ dental home initiative began in December 2006. Its premise is simple—help Iowa children have good oral health from an early age to achieve optimal health for a lifetime. This allows children the ability to eat well, to grow and thrive, to concentrate on learning, and to feel positive about their appearance, improving social interactions. Good oral health also contributes to overall well-being and reduces future dental and medical costs. The I-Smile™ program helps Iowa families address challenges that may impact their ability to keep children’s mouths healthy and to access dental care.

**BACKGROUND**

In partnership with the Iowa Department of Human Services, the Iowa Department of Public Health (IDPH) administers I-Smile™ through contracts with regional public and private non-profit organizations. These contractors implement I-Smile™ statewide; all 99 counties are included. Each of the contractors employ a dental hygienist, who serves as the local I-Smile™ coordinator. As licensed dental hygienists, the coordinators focus on preventing dental disease, identifying ways to help families receive care from dentists, and promoting the importance of oral health within the communities they serve.

The I-Smile™ coordinators work to:

- Develop relationships with dentists and dental office staff, encouraging them to accept referrals of underserved children for preventive and restorative dental care;
- Build partnerships within the communities they serve, with businesses, civic organizations, health care providers, and schools—increasing awareness about the importance of oral health;
- Help families make dental appointments, link with community services, and connect to dental insurance, such as Medicaid and hawk-i;
- Participate in community events and meetings, promoting oral health and its role in overall health;
- Help local boards of health address oral health issues of county residents;
- Partner with medical offices to provide training and encourage screenings and fluoride applications for children at well-child appointments;
- Educate parents and children about preventing cavities; and
- Assure that underserved children have access to screenings, fluoride, and sealant applications in public health locations to prevent disease and reduce health care costs.

1 I-Smile™ is a part of Iowa’s statewide Title V maternal, adolescent, and child health program.
**RESULTS**

To evaluate program impact and the ability of at-risk Iowa children to access dental care, IDPH reviews Medicaid paid claims data from the Iowa Department of Human Services each year. The following information has been determined using Medicaid data for state fiscal year 2018\(^2\). Baseline data is from state fiscal year 2005, the year before I-Smile™ began.

As demonstrated in Figure 1, in 2018 for Medicaid-enrolled children ages 0-12 years of age:
- The number of children receiving care from dentists was nearly double the number in 2005. More than 124,700 children saw a dentist in 2018.
- More than 30,650 children received preventive care (fluoride applications, screenings, dental sealants) from dental hygienists and/or nurses with I-Smile™ in public health locations such as WIC\(^3\) clinics, Head Start centers, and schools—nearly four times as many as in 2005.

Fifty percent of Medicaid-enrolled children saw a dentist in 2018, an improvement from 43.5 percent in 2005. Just over seven percent (18,382) of Medicaid-enrolled children received care from Iowa’s Federally Qualified Health Center (FQHC) dental clinics in 2018; 1,354 more children than in 2017.

Although nearly double the number of Medicaid-enrolled children received care from dentists in 2018 than in the year before I-Smile™ began, the number of dentists providing care has started to decline. In 2018, 89 more dentists billed Medicaid for care provided to a child than in 2005, but there were 38 fewer dentists who billed Medicaid than one year ago (2017).

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\(^2\) Iowa’s state fiscal year is July 1 through June 30.

\(^3\) WIC (Women, Infants and Children) is a supplemental nutrition program for babies, children under the age of 5, pregnant women, breastfeeding women, and women who have had a baby in the last 6 months.
In addition, being enrolled as a Medicaid provider was not indicative of providing care in 2018 (Table 1). Forty-four percent of dentists enrolled as providers billed Medicaid for care provided to a child, less than the rate in 2005 (63%) and 2017 (47%). The number of dentists billing Medicaid for $10,000 or more in services for children more than doubled from 2005 (from 243 to 537), yet this also declined by 11 compared to 2017 (from 548 to 537).

### Table 1: Despite More Medicaid-Enrolled Dentists, Rate of Dentists Billing Medicaid Down 30% in 2018

<table>
<thead>
<tr>
<th>Year</th>
<th>Dentists Enrolled as Medicaid Providers</th>
<th>Dentists Enrolled That Billed Medicaid for Services</th>
<th>Dentists Enrolled That Did Not Bill Medicaid for Services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>2005</td>
<td>1,613</td>
<td>1,018</td>
<td>63%</td>
</tr>
<tr>
<td>2018</td>
<td>2,492</td>
<td>1,107</td>
<td>44%</td>
</tr>
<tr>
<td>CHANGE</td>
<td>+879</td>
<td>+89</td>
<td>-30%</td>
</tr>
</tbody>
</table>

In Iowa, costs to Medicaid for children's dental services are stable (Table 2). When adjusting for inflation⁴ and the 1 percent increase in reimbursement rates that occurred in 2014, the average cost to Medicaid per enrolled child in Iowa per year has increased by $4.79 since 2005. Yet, the number of children receiving care from dentists and/or prevention from I-Smile™ has increased significantly—53,537 more children saw a dentist in 2018 than in 2005, and 22,790 more children received preventive care from I-Smile™ in public health locations.

### Table 2: Similar Average Annual Cost per Medicaid Beneficiary with Over 50,000 More Children Served by Dentists in 2018 than 2005

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Year</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-12 Years</td>
<td>2005</td>
<td>2018</td>
</tr>
<tr>
<td>3-5 Years</td>
<td>$168.46</td>
<td>$174.87</td>
</tr>
<tr>
<td>6-9 Years</td>
<td>$187.47</td>
<td>$192.62</td>
</tr>
<tr>
<td>10-12 Years</td>
<td>$239.83</td>
<td>$226.77</td>
</tr>
<tr>
<td>0-12 Years</td>
<td>$151.39</td>
<td>$156.18</td>
</tr>
</tbody>
</table>

*2005 values adjusted for inflation and 1% Medicaid reimbursement increase in 2014

In Iowa, costs to Medicaid for children's dental services are stable (Table 2). When adjusting for inflation⁴ and the 1 percent increase in reimbursement rates that occurred in 2014, the average cost to Medicaid per enrolled child in Iowa per year has increased by $4.79 since 2005. Yet, the number of children receiving care from dentists and/or prevention from I-Smile™ has increased significantly—53,537 more children saw a dentist in 2018 than in 2005, and 22,790 more children received preventive care from I-Smile™ in public health locations.

Two out of every 3 Medicaid-enrolled children ages 3-12 years saw a dentist in 2018. Nevertheless, early dental visits are not yet routine for Medicaid-enrolled children in Iowa younger than 3 years of age. In 2018, just 1 in 5 Medicaid-enrolled children age 2 and younger saw a dentist, although the first dental visit is recommended within six months of the first tooth erupting or by a child's first birthday. Figure 2 illustrates the percent of Medicaid-enrolled children who saw a dentist in 2018 by age group.

One strategy used to help ensure at-risk children receive early cavity-preventing care before turning 3 years-old is for medical providers to apply fluoride varnish during well-child examinations. Until the past year, this strategy had seen limited success in Iowa. However, in 2018, 562 Medicaid-enrolled children ages 0-2 years were provided with a fluoride varnish application from a medical provider, an increase of 326 from 2017 and an increase of 547 from 2005. The sizeable increase in 2018 is likely the result of the Cavity Free Iowa project, which began in central Iowa. Through Cavity Free Iowa, medical providers are trained by I-Smile™ coordinators and encouraged to incorporate fluoride varnish applications as part of well-child visits, as recommended by Iowa’s Early and Periodic Screening, Diagnosis, and Treatment periodicity schedule.

**DISCUSSION**

The I-Smile™ network, a partnership between state and local public health programs and organizations, dentists, and other community members, is helping more Iowa children access dental services. Led by 23 regional coordinators, I-Smile™ uses a multi-pronged approach, which focuses on oral health promotion and education; community partnership-building; gap-filling preventive services; and care coordination and referrals for dental treatment and regular visits. With a 75 percent increase in Medicaid-enrolled children seeing a dentist in 2018 compared to 2005, the program and the many partnerships are demonstrating success.
The rate of Medicaid-enrolled children ages 3-12 years who saw a dentist in 2018 (61%) is especially remarkable because it is nearly the rate of privately insured Iowa children ages 1-20 who receive dental care. Data from the American Dental Association’s Health Policy Institute shows that in 2016, 63 percent of privately insured Iowa children received dental services.

Yet challenges remain, particularly for children younger than 3 years old. To address access for very young children, I-Smile™ will continue to use dental hygienists and nurses to provide preventive services at public health sites such as WIC clinics, Head Start centers, preschools, and child care centers. Through this approach, tooth decay may be prevented and, in turn, result in less need for costly restorative treatment and reduced health care costs.

Another way I-Smile™ is working to improve access to preventive services for young children is through increased outreach to medical providers. Because children younger than 3 years of age are more apt to routinely see physicians than dentists, medical providers are an ideal fit for the I-Smile™ safety net. Incorporating cavity-preventing fluoride varnish applications into well-child visits can be adopted as a standard practice for young patients. I-Smile™ coordinators will continue to provide oral health training for medical office staff and serve as a resource for the offices, providing patient educational materials and referral assistance for families without a dentist.

I-Smile™ coordinators will continue regular visits with dentists and office staff to help identify strategies that can increase engagement of dentists with I-Smile™, which may include participating in Give Kids a Smile Day, volunteering for screenings at community events, and accepting direct referrals from I-Smile™ coordinators.

One more strategy being incorporated within I-Smile™ is the use of silver diamine fluoride (SDF). Following the Iowa Dental Board’s adoption of rules in October that allow use of SDF by dental hygienists in public health locations, I-Smile™ is beginning to use it for children at WIC clinics. SDF is a product that when applied to teeth, not only prevents tooth decay, but can also stop the decay process in some existing cavities. In addition to stopping the pain caused by cavities, arresting tooth decay can sometimes eliminate the need for a restoration from a dentist and/or reduce the immediate need for a dental appointment to restore a cavity. This is particularly beneficial for families who have difficulties accessing dental appointments due to distance to dental offices, inability to pay for care, or other barriers they may face.

The future of I-Smile™ includes opportunities to strengthen progress as well as to improve upon challenges. Optimal health for a lifetime includes oral health and good oral health must be a priority beginning at birth.
**Table 3:** Number of Medicaid-Enrolled Children Ages 0-12 Receiving a Dental Service From Dentists

<table>
<thead>
<tr>
<th></th>
<th>Ages 0-2</th>
<th></th>
<th>Ages 3-5</th>
<th></th>
<th>Ages 6-9</th>
<th></th>
<th>Ages 10-12</th>
<th></th>
<th>Ages 0-12</th>
<th></th>
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</thead>
</table>

**Table 4:** Number of Medicaid-Enrolled Children Ages 0-12 Receiving a Dental Service From I-Smile™ (Title V) Dental Hygienists and Nurses in Public Health Settings

<table>
<thead>
<tr>
<th></th>
<th>Ages 0-2</th>
<th></th>
<th>Ages 3-5</th>
<th></th>
<th>Ages 6-9</th>
<th></th>
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