



# the burden of oral disease

## Early Childhood

### Oral Disease in Early Childhood

Children can begin experiencing oral disease as soon as their first tooth erupts.<sup>1-2</sup> Because of this, early oral health care is necessary to maintain optimal health and wellbeing. Many professional organizations, including the American Dental Association and the American Academy of Pediatrics, recommend that a child see a dentist by his or her first birthday or approximately six months after the eruption of the first tooth.<sup>2-4</sup>

Early oral health care is particularly important for the prevention or detection and intervention of early childhood caries (ECC). Early childhood caries is a condition in which a child ages 0-5 years has one or more decayed, missing, or filled tooth surfaces present in a primary tooth.<sup>5,6</sup> It has been estimated that 23% of children in the United States suffer from ECC.<sup>7</sup> Early childhood caries is the most common chronic disease of young children.<sup>8</sup> In addition to causing pain and difficulties eating, learning, and playing, ECC can create long-lasting negative health effects.<sup>1</sup> Many children with ECC suffer from malnutrition and this can slow growth and development.<sup>9</sup> Children with ECC can also develop iron deficiency anemia, further hindering growth.<sup>10</sup> Additionally, children with ECC are at great risk for developing future caries.<sup>11</sup> Without proper intervention, ECC can permanently damage teeth.<sup>3</sup>

### Risk and Protective Factors for Oral Disease in Early Childhood

Infants and young children often receive contagious decay-causing bacteria from their parents early in life through saliva-sharing behaviors.<sup>12</sup> Because of this, children are at an increased risk for oral disease if their parents have tooth decay or consume diets high in sugar.<sup>8</sup> Additionally, children who frequently consume sugary foods and beverages have an increased risk of oral disease.<sup>8</sup> Other risk factors for early oral disease in children include poor home dental care, exposure to second-hand smoke, and being from a family of low socioeconomic status.<sup>8</sup>

Various dietary and hygiene practices at home can help protect young children from early oral disease. Parents should avoid sharing utensils or orally cleaning a pacifier or bottle nipple. Parents should also avoid providing sugary beverages to infants and children in bottles or training cups.<sup>8</sup> In addition, parents should wipe off gums or brush the teeth of children with a small amount of fluoridated toothpaste twice daily and after the consumption of food or beverages.<sup>5</sup> Children can also be protected from early oral disease by drinking fluoridated water.<sup>13</sup>

Finally, it is important for children to establish dental homes within the first year of life. A dental home includes a network of providers who can ensure regular and comprehensive oral health care.<sup>14</sup>

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## How is Iowa Doing?

All students entering kindergarten in Iowa are required to have a dental screening. For the 2015-2016 school year, 77.4% of kindergarteners complied with this requirement. Of these children with valid certificates, 14.7% required dental care and 2.5% required urgent dental care.<sup>15</sup>

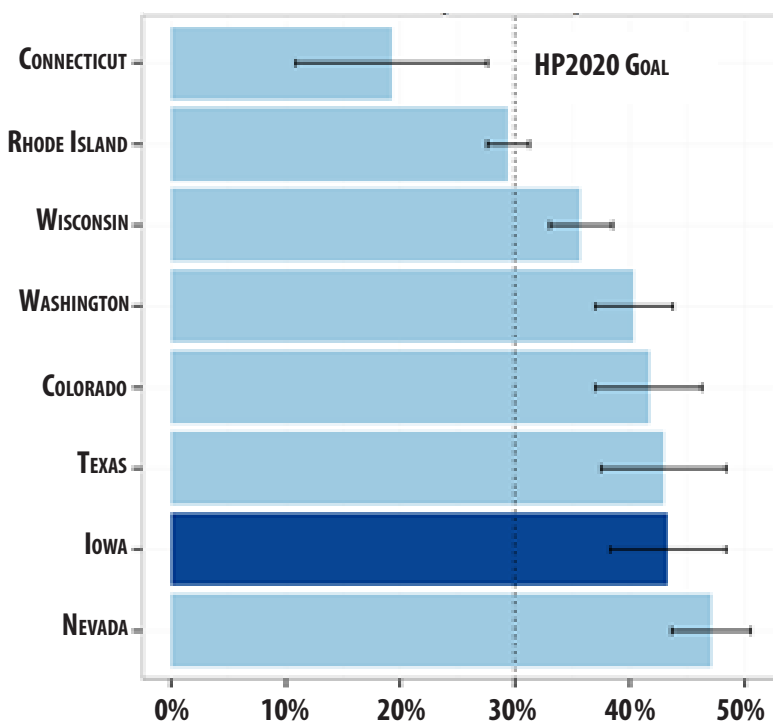
The Iowa Department of Public Health also conducts open mouth surveys of children in Head Start programs. The majority of these children are 3-5 years. Of those surveyed in 2015, 43.3% had a history of decay (filled tooth and/or untreated decay).<sup>16</sup> Iowa falls short of meeting the Healthy People 2020 goal to have only 30% of 3-5 year olds with caries experience.<sup>17</sup>

## What is Iowa Doing?

The I-Smile™ dental home initiative, founded in 2006, uses the care coordination skills of dental hygienists to assist infants and young children establish dental homes.<sup>18</sup> These dental hygienists, known as I-Smile™ Coordinators, work in their communities to form partnerships and build dental referral networks. Additionally, Head Start and Early Head Start programs work to ensure that the children they serve have dental homes.<sup>19</sup> In 2016, over 47,000 Medicaid-enrolled children 0-5 years received a dental service from a dentist.<sup>20</sup> Many of these services were made possible through care coordination.

As part of a child's dental home, many public health providers help to ensure Iowa children receive needed oral health services. I-Smile™ Coordinators, public health dental hygienists, and public health nurses provide gap-filling preventive services such as oral screenings and fluoride varnish applications.<sup>20</sup> These services are provided in Head Start classrooms, Supplemental Nutrition Program for Women, Infants, and Children (WIC) clinics, preschools, and other public health settings. In 2016, nearly 26,000 Medicaid-enrolled Iowa children ages 0-5 years received one or more gap-filling preventive services.<sup>20</sup>

PERCENT OF HEAD START CHILDREN WHO HAVE A HISTORY OF DECAY



Source: [www.cdc.gov/oralhealthdata](http://www.cdc.gov/oralhealthdata)  
Includes all states with Head Start Surveys submitted to the Centers for Disease Control and Prevention from 2009-2015.  
Horizontal lines indicate 95% Confidence Intervals.

Healthy People 2020 also set a goal to reduce the proportion of 3-5 year old children with untreated decay to 21.4%.<sup>17</sup> Iowa has met this goal, as the Head Start open mouth survey indicated that only 17.2% of these children had untreated decay in 2015.<sup>16</sup>

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*Fact sheet references and additional information can be found at <https://idph.iowa.gov/ohds/oral-health-center/reports>*