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ORAL HEALTH PROGRAM  
FOR EARLY HEAD START

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FINAL PROJECT REPORT

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## EARLIER IS BETTER PARTNERS



*This project is funded by the Healthier Wisconsin Partnership Program, a component of the Advancing a Healthier Wisconsin Endowment at the Medical College of Wisconsin.*



# EARLIER IS BETTER PROJECT

## Executive Summary

Building upon previous oral health initiatives, the Earlier Is Better (EIB) partnership was initiated in 2012 between Children's Health Alliance of Wisconsin, Medical College of Wisconsin, Wisconsin Dental Association, Wisconsin Department of Health Services Oral Health Program and Wisconsin Head Start Association. EIB was funded by a 5-year grant from the Medical College of Wisconsin's Advancing a Healthier Wisconsin Partnership Program (HWPP). The Partnership mission is to improve oral health in Early Head Start (EHS) children and pregnant women across the State, specifically for the home visitation program. EIB implemented and evaluated an educational intervention aimed to enhance oral health communication techniques, knowledge, skills, and practices between home visitors/parent educators and parents/caregivers. After the establishment of the EIB partnership, Parent Oral Health Education Toolkit (POHET) was developed which consist of: (a) flip charts; (b) an animal tooth brushing model; (c) photographs and models with oral health information; (d) red flag checklist; and (e) goal setting magnet. Using the POHET, home visitors/parent educators (HV/PE) were trained to routinely teach parents/caregivers about their roles in preventing risks to oral health as early as pregnancies, infancy, and early childhood. EHS home-based services are provided by home visitors/parent educators who meet with pregnant women and families on a weekly basis for ninety minutes throughout the year. EIB partners recognized that ongoing and trusting relationships of HV/PE make them the ideal messengers of oral health education for EHS families.

The following objectives were addressed in the EIB Project from 2011 through 2016:

**Objective 1:** Establish an Oral Health Partnership to ensure effective development, implementation, and evaluation of the Earlier Is Better Project Plan by December 2012.

**Objective 2:** Document changes in oral health knowledge and behaviors for parents/caregivers after implementation of the Parent Oral Health Education Toolkit (POHET) for at least 50% of Wisconsin Early Head Start programs by December 2015.

**Objective 3:** Increase by 50% from the 2009-2010 baseline, the number of Wisconsin Early Head Start (WI EHS) children with a dental home from 50.7% to 71% by December 2016.

**Objective 4:** Reduce dental caries experience in 3-year-old Wisconsin Early Head Start children from 25% to 20% by December 2016.

### **Data Collection and Statistical Analysis**

EIB's protocol was submitted and approved by the Medical College of Wisconsin Institutional Review Board (IRB). EIB obtained data from multiple sources such as survey data from parents/caregivers and home visitors/parent educators and focus groups. Data was stored in REDCap and imported into SPSS (version 22.0) for all statistical analyses. The Program Information Report (PIR) provides comprehensive data on the services, staff, children, and families served by Head Start and Early Head Start programs nationwide. Fisher's exact test was performed for unpaired data and the McNemar non-parametric test was used to compare paired pre/post oral health responses. Sampling by survey demonstrated that more than 40% of the data was secured from CAP Services-Steven Points which is highlighted throughout this Report. Cochran-Armitage trend test was used to examine trends of an association between variables, over the years (for example, all WI EHS Sites by MCW Research vs Non-Research sites). The Fisher's exact test was used to compare the values at each year and the first/last year, while Spearman correlation coefficient was used for non-normally distributed variables.

**Statistical significance was determined as p values less than 0.05.**

### **Objective 1 Accomplishment:**

EIB partners **average ratings ranged from (4.78 to 4.90)** on a scale of 1 for poor and 5 for excellent on variables of clarity of meeting goals, leadership, quality of discussion, cohesiveness of members, organization of meetings, and productivity of meetings. Partners' participation **ratings averaged 0.99** on a scale of 0 (no) to 1 (yes). Partners rated that their **opinions were respected at 3.93** using a scale of 1 (not respected) to 4 (completely respected).

### **Objective 2 Accomplishments:**

**Seventy percent (14 of 20) of the Wisconsin (WI) Early Head Start Programs** have participated in the Earlier Is Better Project, **adopted the POHET toolkit**, and/or had their home visitors/parent educators **join the research team** to collect data from WI EHS parents/caregivers (**exceeding the EIB Objective 2 Goal of 50% participation of EHS programs**).

**HV/PE demonstrated** a significant increase in knowledge for approximately 43% of the survey questions on oral health. **For the remaining knowledge questions (57%), the HV/PE demonstrated** a high level of knowledge concerning oral health at **baseline** as well as at **post assessment**. **Therefore, oral health exchange of knowledge was not significant** for 57% of the knowledge items.

**HV/PE reported** statistically significant **increases in confidence** in oral health practices **after the EIB educational intervention**. **Pre/EIB training reported** confident ranged from **10.9% to 55.1%** for **oral health practices** and immediately post/EIB training, the reported **confident ranged from 74.8% to 94.5%**.

**Six months after HV/PE EIB training, 43.5%** of respondents indicated that they would **prefer either an annual review, or 2-year review**. In **Figure 7, 64%** of respondents noted their **preference for In-Person** oral health training. **Figure 8 shows** that **49%** of respondents **participated in the EIB Oral Health Training Program** within the **last 12-23 months**.

**Fifty-seven percentage (8 of 14) of the WI-EHS Programs participated in the EIB Project** for consenting parents/caregivers to participate in the **EIB Research**; meanwhile, **CAP Services- Stevens Point** constituted over **40% of collected data**.

**Parents/caregivers reported a statistically significant increase in dental home rates** for their youngest child by the 3<sup>rd</sup> visit. The self-report responses showed a **statistically significant increase** in the percentage of parents/caregivers whose **youngest child had seen a dentist within the last 12 months**. EIB also observed improved tooth brushing habits, with parents/caregivers reporting increased rates of their youngest child **brushing twice or more per day** and **assisting their youngest child with brushing their teeth**. These are **statistically significant positive changes in critical oral health behaviors** that affect children's **oral health outcomes**.

Parents'/caregivers' **oral health beliefs and attitudes** at the 1<sup>st</sup> visit **were sustained** at the 3<sup>rd</sup> visit, **after the EIB POHET intervention**.

### **Objective 3 Accomplishments:**

Over the past 5 years, with the implementation of the **EIB Project resulting in greater exposure to 78% of WI EHS enrollees**, **WI EHS** has experienced a **statistically significant positive trend (p=0.020)** in the proportion of **children with a dental home**. **Statistically significant, more children served at the EIB Research Sites** than the **Non Research Sites (p≤0.001)**.

In **2012-2013, 67%** of children at **EIB Research Sites had a dental home**, which was **statistically significant (p≤0.001) when compared to** the children in **Non-Research Sites (53%)**. By the end of the **EIB Project**, PIR data reported a **sharp increase** in the proportion of children who had a **dental home at the Non-Research Sites**. This is probably secondary to a **51% reduction of enrollees in the Non-Research Sites** and concurrently a **54% increase** in enrollees at the **Research Sites**. In the final year of

EIB, the **Research and Non-Research Sites reported similar dental home rates of 58% and 61% (p=0.28)**, respectively, with **both rates exceeding** the WI-EHS 5-Year Average (2010-2015) of **55.7%**.

Approximately **78% of WI EHS pregnant women** were enrolled at **EIB Research Sites** offering **EIB's POHET**, since its initiation. Statistically significant, **more pregnant women were served at the EIB Research Sites** than the **Non-Research Sites (p≤0.001)**.

Although **completion of dental exams** for **WI EHS pregnant women** has been on the **decline** since the initiation of the **EIB Project** year 2012-2013, the **completion of dental exams among pregnant women at EIB Research Sites remains higher, statistically significant (29%) p=0.005** than that of the **Non-Research Sites (13%)** and greater than the State rate **(25%)** in 2015-2016, the final year of Project implementation.

#### **Objective 4 Accomplishments:**

**Trends in oral health** status for **WI Head Start children** over the last five years **“needing dental treatment”** showed an **increase from 25% at baseline to 28% in 2013-2014, after initiation of the EIB intervention**. According to the Program Information Report, **WI HS Sites** connected to **EIB Research Sites** demonstrated a **statistically significant increase (from 24% to 32%)** in the proportion of children who **reported yes to “needing dental treatment”**.

The **increase** in WI HS children **“needing dental treatment”** upon entering HS might be secondary to **greater awareness of dental caries by HV/PE and parents/caregivers**. In addition, there was **no data to document the proportion of WI-HS children** who had been **exposed to EIB POHET** during their EHS enrollment, or whether they matriculated into WI HS, therefore, the **“needing dental treatment” rates do not have a reliable correlation**.

#### **Community Engagement**

EIB Project partners **offered multiple opportunities for engagement** with the target population in oral health initiatives. Partners participated in a number of **local, state and national committees and organizations** to enhance the EIB Project's goal to **meet or exceed its objectives** through current oral health research and **sharing of effective and innovative oral health practices** throughout WI.

Partners have **disseminated via manuscripts, conferences, and workshops** about the effectiveness of the EIB Project to elevate **oral health risk assessment and behavior** changes among **HV/PE and parents/caregivers**.

EIB partners have **leveraged the findings** of this Project to **secure a 4-year Award through Health Resources and Services Administration (HRSA)** that is focused on establishing a statewide **integrated oral health program** in Wisconsin. The aim of the Award is to **reduce the prevalence of oral disease in pregnant women and infants** most at risk by improving access to quality oral health care as a sustainability initiative.

A significant **challenge** to overcome involves the fact that the **HV/PE have an approximately 30% turnover rate** which present a challenge for sustaining the impact of oral health training. The **EIB partners** recognized the need for institutionalization of the **EIB oral health training**, therefore improving accessibility through the development of a **technology-based platform** for all early childhood education providers.

In conclusion, **greater clarity of national HS performance standards** emphasizing **compliance with oral health indicators** suggests that **continual efforts to address oral health** is critical over a prolonged period of time.

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# EARLIER IS BETTER PROJECT

## Project Overview

Earlier Is Better (EIB) was initiated in 2012 as a long-term partnership between Children's Health Alliance of Wisconsin, Medical College of Wisconsin, Wisconsin Dental Association, Wisconsin Department of Health Services Oral Health Program and Wisconsin Head Start Association. EIB was funded by a 5-year grant from the Medical College of Wisconsin's Advancing a Healthier Wisconsin Partnership Program (HWPP).

Earlier Is Better provided oral health education to pregnant women and parents/caregivers of infants and toddlers enrolled in the Wisconsin Early Head Start (EHS) program. Earlier Is Better developed the Parent Oral Health Education Toolkit (POHET) consisting of: (a) flip charts; (b) an animal tooth brushing model; (c) photographs and models with oral health information; (d) red flag checklist; and (e) goal setting magnet. Using the POHET, home visitors/parent educators were trained to routinely teach parents/caregivers about their roles in preventing risks to oral health in their children as early as infancy. POHET equips pregnant women and families of children from birth to age 3 with knowledge that informs and guides their oral health decision making. This Evaluation Report summarizes the objectives, methodology, data collection, statistical analysis, and performance measures of EIB 2012-2016.

Early Head Start (EHS) is a federally-funded, community-based program for low-income families that originated within Head Start in 1994. EHS serves pregnant women and families with infants and toddlers up to 3 years of age. The mission of EHS is to promote healthy prenatal outcomes for pregnant women, improve the development of young children and promote healthy family functioning. EHS offers families three different service options: home-based, center-based or a combination in which families receive both home visits and center-based experiences. Home visitation is a cornerstone of EHS service delivery.

## Data Collection and Statistical Analysis

EIB's protocol was submitted and approved by the Medical College of Wisconsin Institutional Review Board (IRB). EIB obtained data from multiple sources such as survey data from parents/caregivers and home visitors/parent educators and focus groups. Data was stored in REDCap and imported into SPSS (version 22.0) for all statistical analyses. Data for the number of children and pregnant women served in Early Head Start with a dental home and Head Start children needing dental treatment was extracted from the Office of Head Start Program Information Report (PIR). Each year all federally-funded Head Start grantees and delegates (including HS, EHS, AIAN HS, AIAN EHS, and MSHS) are required to complete the PIR questionnaire. The PIR provides comprehensive oral health data on the services, staff, children, and families served by Head Start and Early Head Start programs nationwide.

Data for home visitors/parent educators consisted of pre/post-knowledge and confidence assessment. In addition, descriptive data is shared for post-post knowledge retention for at least 6 months following training, as well as training effectiveness, and desired frequency and methods of oral health training. In conducting the analysis, the Fisher's exact test was performed for unpaired data, including all Session 1 and Session 3 responses. The McNemar non-parametric test (McNemar-Bowker test for more than 2 groups) was used to compare paired pre and post responses, utilizing surveys for which the parents/caregivers completed both Session 1 and Session 3. Survey responses for parents/caregivers enrolled at CAP-Services, Stevens Point is illustrated due to implementation of the EIB intervention with fidelity, and significant contribution (41%) of EIB survey data. The parents/caregivers surveys were conducted using a parent-youngest child dyad for knowledge, beliefs, and attitudes of oral health. Surveys and consents were available in English and Spanish.

The Cochran-Armitage trend test was used to examine the trend of 2 groups for the presence of an association between variables, over the years (for example, all WI EHS Sites by MCW research vs non-research sites). When figures had multiple populations within a figure, the Fisher's exact test was used to compare the values at each year and the first/last year. Spearman correlation coefficient was used for non-normally distributed variables. **Statistical significance was determined as p values less than 0.05.**

## EIB PARTNERSHIP

**Objective 1:** Establish an Oral Health Partnership to ensure effective development, implementation, and evaluation of the Earlier Is Better Project Plan by December 2012.

### Partnership Overview

The Medical College of Wisconsin (MCW) and Children's Health Alliance of Wisconsin (Alliance) long standing partnership is strong, having worked together for over a decade on several oral health Projects. We attribute the success of the partnership to a shared vision to improve the health of children and families; clarity of Project goals; partner roles and responsibilities; strong leadership and effective communication. Additional community partners have joined forces with MCW and the Alliance on each HWPP Project. The Wisconsin Dental Association (WDA), Wisconsin Department of Health Services Oral Health Program (DHS) and Wisconsin Head Start Association (WWSA) were valued additions to the EIB partnership with each partner playing a vital role in the planning and implementing of EIB.

### EIB Partnership Processes

EIB partners have met bimonthly since January 2012 to share information, guide progress and receive updates on the Project. Meeting evaluations were completed at the conclusion of each EIB Partners Meeting. Using such technologies as conference calls and document sharing, phone and internet access was available to maximize full participation. EIB has adopted a meeting evaluation tool from Florin, Chavis, Wandersman & Rich (1992) for this purpose. The tool includes 7 Likert scale items for meeting goals, effectiveness of leadership, quality of discussion, cohesiveness of members, opinions being respected, organization and productivity of meetings and one yes/no item to assess participation of partners. **Table 1** provides an overview of questions, response choices, and cumulative mean ratings by EIB partners.

**Table 1. Mean Ratings of Earlier Is Better Partners' Meetings, Cumulative and 2012-2016**

Variables (n=# Meetings)* [Mean Attendees/Meeting]*	Cumulative (n=27)	2012 (n=6) [n=7.3]	2013 (n=5) [n=7.2]	2014 (n=5) [7.0]	2015 (n=7) [6.7]	2016 (n=4) [6.3]
<b>Scale: 1=Poor to 5=Excellent</b>						
1. Clarity of Meeting Goals	<b>4.82</b>	4.70	4.83	4.83	4.91	<b>4.84</b>
2. Leadership	<b>4.90</b>	4.77	4.92	4.89	4.98	<b>5.00</b>
3. Quality of Discussion	<b>4.78</b>	4.57	4.75	4.87	4.87	<b>4.92</b>
4. Cohesiveness of members	<b>4.83</b>	4.77	4.83	4.83	4.94	<b>4.80</b>
5. Organization of Meetings	<b>4.84</b>	4.77	4.83	4.80	4.94	<b>4.88</b>
6. Productivity	<b>4.78</b>	4.59	4.89	4.80	4.89	<b>4.68</b>
<b>Scale: 0=No to 1=Yes</b>						
7. Participation	<b>0.99</b>	0.98	1.00	1.00	1.00	<b>1.00</b>
<b>Scale: 1=Not Respected to 4=Completely Respected</b>						
8. Opinions Respected	<b>3.93</b>	3.89	3.97	3.89	3.98	<b>3.88</b>

**Legend:** Cumulative EIB partners **average ratings ranged from (4.78 to 4.90)** on a scale of 1 for poor and 5 for excellent on variables of clarity of meeting goals, leadership, quality of discussion, cohesiveness of members, organization of meetings, and productivity of meetings. Partners' participation **ratings averaged 0.99** on a scale of 0 (no) to 1 (yes). Partners rated that their **opinions were respected at 3.93** using a scale of 1 (not respected) to 4 (completely respected).

**Data Source:** EIB Partner Meeting Evaluation Forms, and Survey Monkey online Partner Meeting Evaluations

## ORAL HEALTH KNOWLEDGE & BEHAVIOR

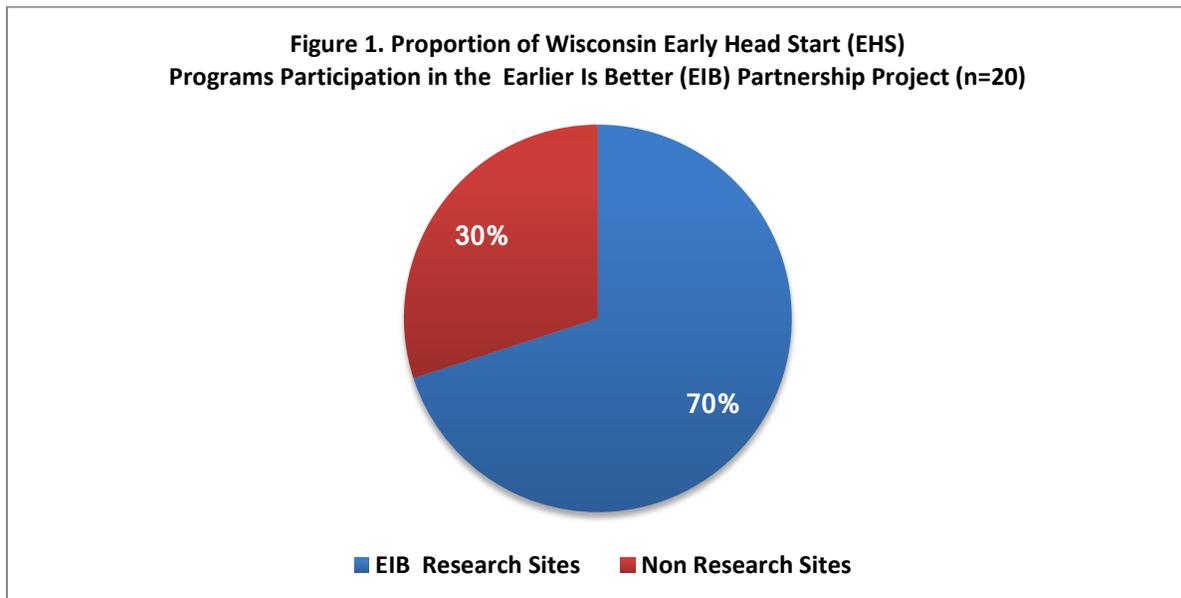
**Objective 2:** Document changes in oral health knowledge and behaviors for parents/caregivers after implementation of the Parent Oral Health Education Toolkit (POHET) for at least 50% of Wisconsin Early Head Start programs by December 2015.

### Home Visitors/Parent Educators Oral Health Knowledge and Behaviors: Pre/Post/Post-Post

#### POHET Training Overview

Earlier Is Better provided oral health education to pregnant women and parents/caregivers of infants and toddlers enrolled in the Wisconsin Early Head Start (EHS) program. Using the Parent Oral Health Education Tool Kit (POHET), home visitors/parent educators were trained to routinely teach parents/caregivers about their roles in preventing risks to oral health in their children as early as infancy. The POHET offers pregnant women and families of children from birth to 3 years of age knowledge and skills to inform and guide oral health decision making.

At the end of the Project, 70% (14 of 20) of Wisconsin (WI) Early Head Start (EHS) agencies participated in Earlier Is Better, adopted the POHET toolkit, and had their home visitors/parent educators join the research team to collect data from WI EHS parents. Therefore, the EIB Project exceeded its **target goal of 50% participation** among WI EHS Programs (see **Figure 1**).



**Legend: Seventy percent (14 of 20) of the Wisconsin (WI) Early Head Start Programs have participated in Earlier Is Better Project, adopted the POHET toolkit, and/or had their home visitors/parent educators join the research team to collect data from WI EHS parents/caregivers (exceeding the EIB Objective 2 Goal of 50% participation of EHS programs).**

**Data Source:** Head Start Public Information Report (PIR) and EIB Project Files

## POHET Training for WI EHS Home Visitors/Parent Educators

- **210 EHS staff trained**
  - **129 home visitors/parent educators** completed **pre/post- knowledge assessments**
- Across **14 EHS Sites** served approximately **3,496 EHS children** and **pregnant women**
  - **3,170 children** and **326 pregnant women** in **2015-2016**

Home visitors/parent educators participated in an oral health training that consisted of a 3-hour educational session with oral health knowledge and motivational interviewing (MI) components. Training included information on the oral health of pregnant women, infants and toddlers. Oral health knowledge was conveyed using a Power Point<sup>®</sup> presentation addressing such topics as dental caries, tooth brushing technique, fluoride, and accessing dental care. In addition, home visitors/parent educators were instructed on how to use the POHET. A brief practice session using the POHET was conducted amongst the home visitors/parent educators following the Power Point<sup>®</sup> presentation. The Motivational Interviewing (MI) component of the training consisted of viewing and discussing three MI-focused videos and a role-playing exercise.

Pre and post training surveys were administered to the home visitors/parent educators following an MCW IRB approved protocol. Subsequent to an informed consent process, surveys were presented to the home visitors/parent educators in paper form and were completed immediately before and immediately after the training. The surveys were designed to measure home visitors'/parent educators' oral health exchange of knowledge, current oral health practices, and confidence in providing oral health education to families.

### Home Visitors'/Parent Educators' Oral Health Knowledge

Knowledge was measured using 14 true/false questions asked at both pre and post-test. After the Earlier is Better intervention, there were **statistically significant improvements** in 43% (6/14) of questions concerning early dental health and dental care in pregnancy as reflected in **Table 2**. Home visitors/parent educators demonstrated a high level of knowledge at baseline for 57% (8/14) of the questions with no significant change after the intervention.

Significant improvements were seen in questions related to: effectiveness of community water fluoridation in reducing tooth decay (45% correct pre-test and 72% correct post-test,  $p \leq 0.001$ ); the bacterial nature of dental caries (79% correct pre-test and 98% correct post-test,  $p \leq 0.001$ ); fluoride toothpaste use in children with high risk for tooth decay (61% correct pre-test and 94% correct post-test,  $p \leq 0.001$ ); adults should help children brush teeth until age 8 (84% to 98% correct,  $p = 0.001$ ) and children should still have help with brushing teeth after 2 years of age (92% to 99% correct,  $p = 0.004$ ).

High pre-knowledge with **no statistically significant change** was revealed in questions related to: caregivers should not clean pacifiers in their own mouths; babies should not be put to bed with bottles; putting children to bed with milk, formula or juice will harm their teeth; children need dental exams before their permanent teeth come in; parents should wipe infants gums with soft cloth; oral disease may progress more quickly in children with special health care needs; tooth decay is not important in young children; and pregnant women should wait until after giving birth to see dentists. (See **Table 2** for further detail.)

**Table 2. Home Visitors'/Parent Educators'  
Exchange of Knowledge POST Educational Intervention**

Questions	% Correct PRE	% Correct POST	P-value
<b>Statistically Significant</b>			
Primary baby tooth development begins during the final trimester (n=125)	36	<b>48</b>	0.044
A smear of toothpaste with fluoride can be used on a child under age 2 who is a high risk for tooth decay (n=124)	60.5	<b>93.5</b>	≤0.001
Community water fluoridation is the most effective method of reducing tooth decay (n=124)	45.2	<b>71.8</b>	≤0.001
By two years of age, a child should be brushing his or her teeth unassisted (n=128)	92.2	<b>99.2</b>	0.004
Dental caries is a bacterial infection (n=127)	78.7	<b>98.4</b>	≤0.001
An adult needs to help a child brush their teeth until about the age of 8 (n=124)	83.9	<b>97.6</b>	≤0.001
<b>Not Statistically Significant</b>			
It is okay to clean a pacifier by placing it in the caregivers mouth before placing it in the child's mouth (n=126)	97.6	<b>98.4</b>	0.999
It is okay to help a baby fall asleep using a bottle of milk or juice (n=126)	97.6	<b>98.4</b>	0.999
Children do not need a dental exam until their permanent teeth come in (n=125)	97.6	<b>95.2</b>	0.508
Starting at birth, parents/caregivers should wipe the gums of a baby with a soft cloth (n=127)	99.2	<b>99.2</b>	0.999
The severity and progression of oral diseases may be faster in children with special health care needs (n=122)	86.9	<b>93.4</b>	0.077
Pregnant women should wait until after they give birth to see a dentist (n=127)	96.9	<b>100</b>	**
Putting a child to bed with a sippy cup of milk, formula or juice will not harm their teeth (n=127)	97.6	<b>98.4</b>	0.999
Decay is not important in young children because their baby teeth will fall out soon (n=123)	100	<b>100</b>	N/A

**Legend:** Home Visitors/Parent Educators demonstrated a **significant increase in knowledge** for approximately **43% of the survey questions on oral health** as shown in **Table 2**. For the remainder of knowledge questions (**57%**), the HV/PE demonstrated a **high level of knowledge concerning oral health** at **baseline** as well as at **post assessment**. Therefore, oral health exchange of **knowledge was not significant for 57% of the knowledge items**.

**Data Source:** EIB Pre and Post POHET Training Survey of WI EHS Home Visitors/Parent Educators

### Oral Health Confidence

Confidence was measured using a 5-point Likert scale (ranging from 1= not at all confident to 5= completely confident) asked at both pre and post-test. After the Earlier is Better intervention, there were **statistically significant increases in all 8 questions** related to confidence in educating parents/caregivers about early dental health and dental care in pregnancy. (See **Table 3**)

**Table 3. Home Visitors’/Parent Educators’ Confidence in Oral Health Practices Before and After Educational Intervention**

Practices	% Very or Completely Confident PRE	% Very or Completely Confident POST	P-value
Recognize early childhood tooth decay (n=128)	20	81	≤0.001
Evaluate a child’s risk of having tooth decay in the future (n=128)	10.9	77.3	≤0.001
Advise parents/caregivers about their child’s oral hygiene (n=129)	43	90	≤0.001
Advise parents about dental visits for their child (n=127)	55.1	94.5	≤0.001
Advise parents about the use of fluoride (n=128)	32.8	89.1	≤0.001
Make a dental referral for a child or infant (n=127)	53.5	83.5	≤0.001
Advise a pregnant woman about her oral health (n=128)	39.8	86.7	≤0.001
Make a dental referral for a pregnant woman (n=127)	48.8	74.8	≤0.001

**Legend:** Home visitors/parent educators reported **statistically significant increases in confidence in oral health practices** after the EIB educational intervention. Pre/EIB training reported **confident ranged from 10.9% to 55.1% for oral health practices** and **immediately post/EIB training** the reported **confident ranged from 74.8% to 94.5%**.

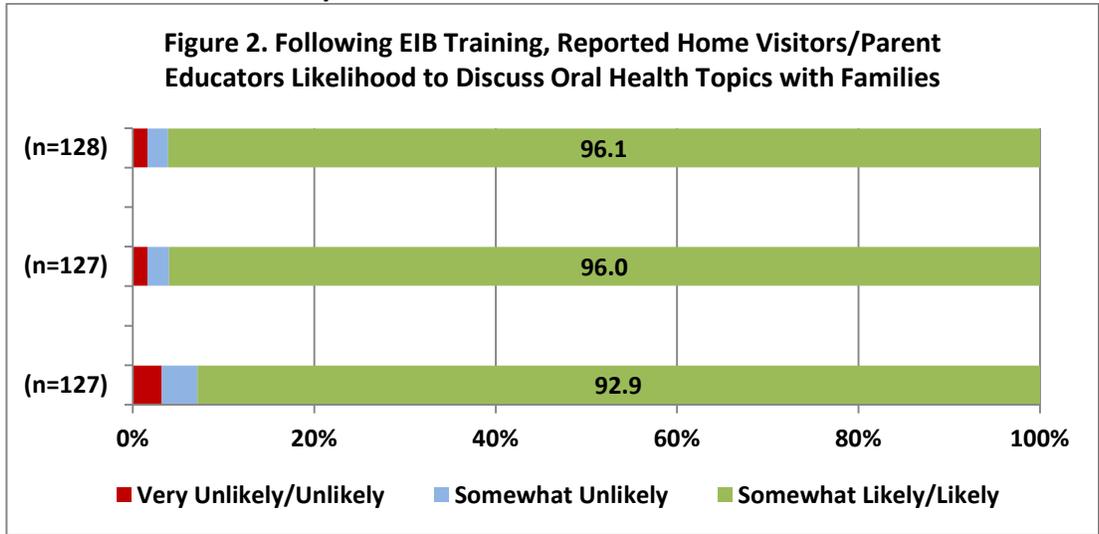
**Data Source:** EIB Pre and Post POHET Training Survey of WI EHS Home Visitors/Parent Educators



**Home Visitors/Parent Educators Reported Oral Health Practices and Activities  
Immediately after EIB POHET Interventions**

**Oral Health Topics  
and Practices**

- Regularly discuss oral health
- Encourage family to discuss oral health with medical provider
- Help families connect with local dentist

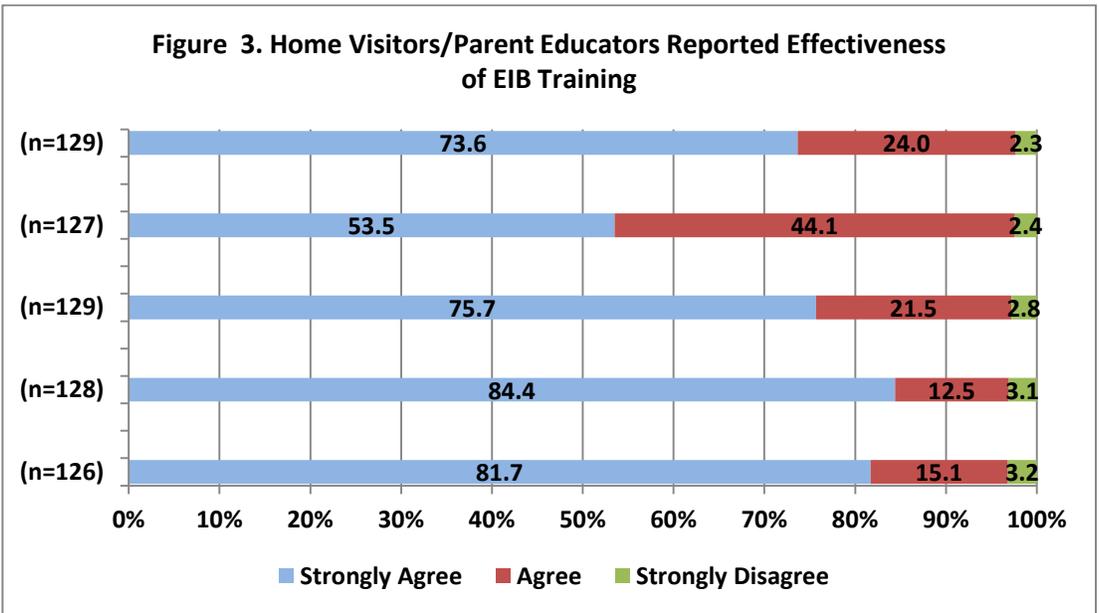


**Legend:** Immediately following the EIB POHET training, greater than 90% of home visitors/parent educators indicated they were **Somewhat Likely/Likely** to discuss oral health topics with families, as shown in **Figure 2**.

**Data Source:** EIB Post POHET Training Survey of WI EHS Home Visitors/Parent Educators

**Oral Health Training  
Effectiveness**

- Can now access oral health resources
- Can assist with oral health barriers/goal setting
- Have knowledge, skills, and tools to use
- Trainer was effective
- Materials and methods were clear/effective



**Legend:** Immediately following the EIB POHET training, **Figure 3** illustrates that **greater than 95%** of home visitors/parent educators reported that they **Agree/Strongly Agree** that: (1) they can **access oral health** resources (97.6%); (2) they can **assist families with oral health barriers/goal setting** (97.6%); (3) they have **knowledge, skills, and tools** to use related to oral health (97.2%). Home visitors/parent educators also **Agreed/Strongly Agreed** that the **trainer was effective** (96.8%) and the **materials and training methods** were clear (96.8%).

**Data Source:** EIB Post POHET Training Survey of WI EHS Home Visitors/Parent Educators

### Feedback on EIB Training from WI EHS Home Visitors/Parent Educators

MCW IRB approval was obtained for an online survey using Survey Monkey to measure home visitors/parent educators retained oral health knowledge (See **Table 4**), oral health practices and response to the EIB training program. **Figures 4-8** below reflect home visitors/parent educators responses to the EIB Oral Health Training Program.

**Table 4. Home Visitors’/Parent Educators’ Knowledge Retention POST/POST-POST Educational Intervention (Unpaired)**

Questions n=(Post, Post Post)	% Correct POST	% Correct POST-POST
It is okay to clean a pacifier by placing it in the caregiver’s mouth before placing it in the child’s mouth (128, 46)	98	100
By two years of age, a child should be brushing his or her teeth unassisted (128, 46)	99	100
Children do not need a dental exam until their permanent teeth come in (127, 46)	95	100
Pregnant women should wait until after they give birth to see a dentist (128, 46)	100	100
Starting at birth, caregivers should wipe the gums of a baby with a soft cloth (127, 46)	99	98
It is okay to help a baby fall asleep using a bottle of milk, formula or juice (127, 45)	98	98
Putting a child to bed with a sippy cup of milk, formula or juice will not harm their teeth (128, 46)	98	98
Decay is not important in young children because their baby teeth will fall out soon (127, 44)	100	98
Dental caries (decay) is a bacterial infection (128, 46)	98	94
An adult needs to help a child brush their teeth until about the age of 8 (128, 46)	98	94
A smear of toothpaste with fluoride can be used on a child under age 2 who is at high risk for tooth decay (128, 46)	93	83
The severity and progression of oral diseases may be faster in children with special health care needs (125, 46)	94	83
Community water fluoridation is the most effective method of reducing tooth decay (125, 45)	72	53
Primary (baby) tooth development begins during the final trimester (126, 45)	48	33

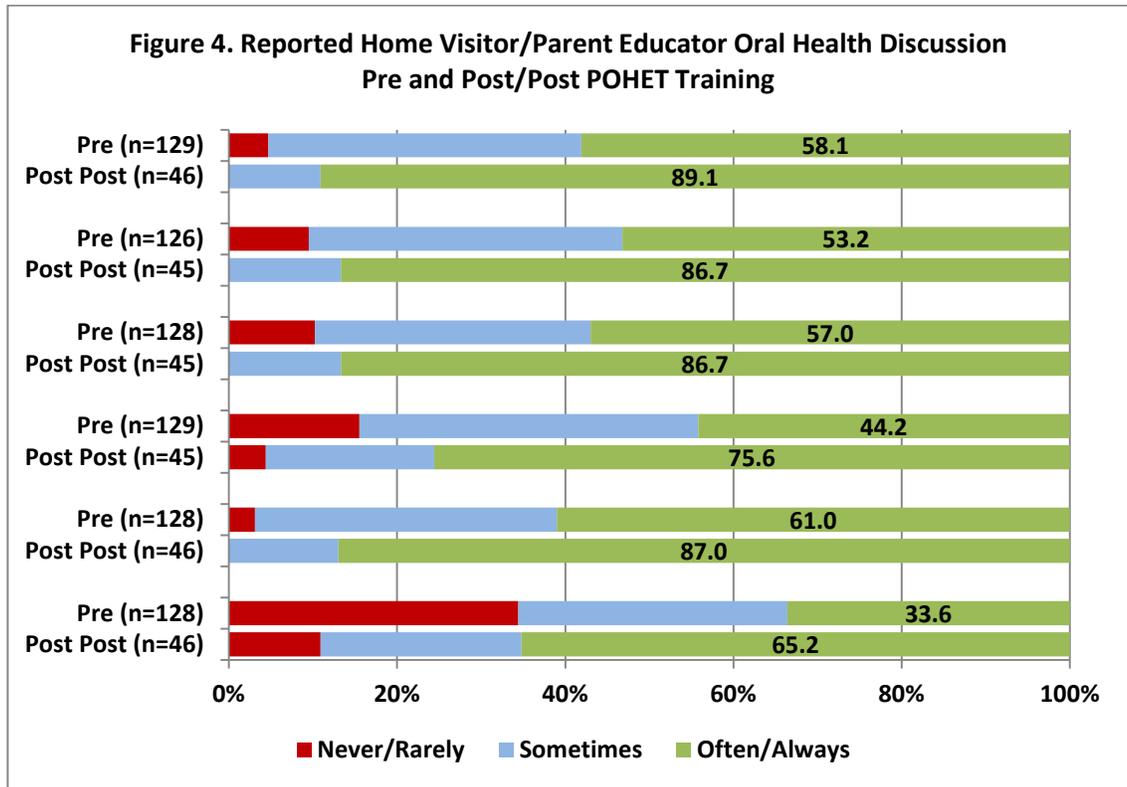
**Legend:** Home visitors/parent educators (HV/PE) completed paper-based **knowledge surveys** before and immediately after the POHET training. Study staff also administered a **six-month follow-up (post-post) assessment using a web-based survey tool**. When examining the post-POHET training and post-post (six-month follow-up) responses, home visitors/parent educators demonstrated **retained knowledge for 12 out of 14 (or 86%)** knowledge questions. As shown in **Table 3** above, the **remaining 2 questions (15%)** related to **community water fluoridation** and **baby tooth development during pregnancy** did not demonstrate retained knowledge among the HV/PE group (n=44-46) that was reassessed during the six-month follow-up.

**Data Source:** EIB Post and Post-Post POHET Training Survey of WI EHS Home Visitors/Parent Educators

## Home Visitors/Parent Educators Reported Frequency of Oral Health Discussions with WI EHS Parents/Caregivers

### Oral Health Topics

- Oral health for children 0 to 3 years
- Cleaning infant/children's teeth
- Giving a baby a bottle to bed/crib
- Cleaning infant's gums
- Age child should see dentist
- Drinking fluoridated water



**Legend:** Prior to the EIB POHET training, the range of home visitors/parent educators discussing the oral health topics with families “Often/Always” was 33.6% to 61% as shown in Figure 4 above. In the Post/Post survey of EIB-trained home visitors/parent educators, the frequency of discussing oral health topics “Often/Always” ranged from 65.2% to 89.1% for sampled cohorts, over six months.

**Data Source:** EIB Pre and Post POHET Training Survey of WI EHS Home Visitors/Parent Educators

### Oral health reminders to stay cavity free

Pregnant women and infants



Dental care for entire family



Brush with fluoride toothpaste 2 times per day



Don't share things you put in your mouth



Don't put baby to bed with a bottle



Only formula or breast milk in bottle



Drink tap water with fluoride

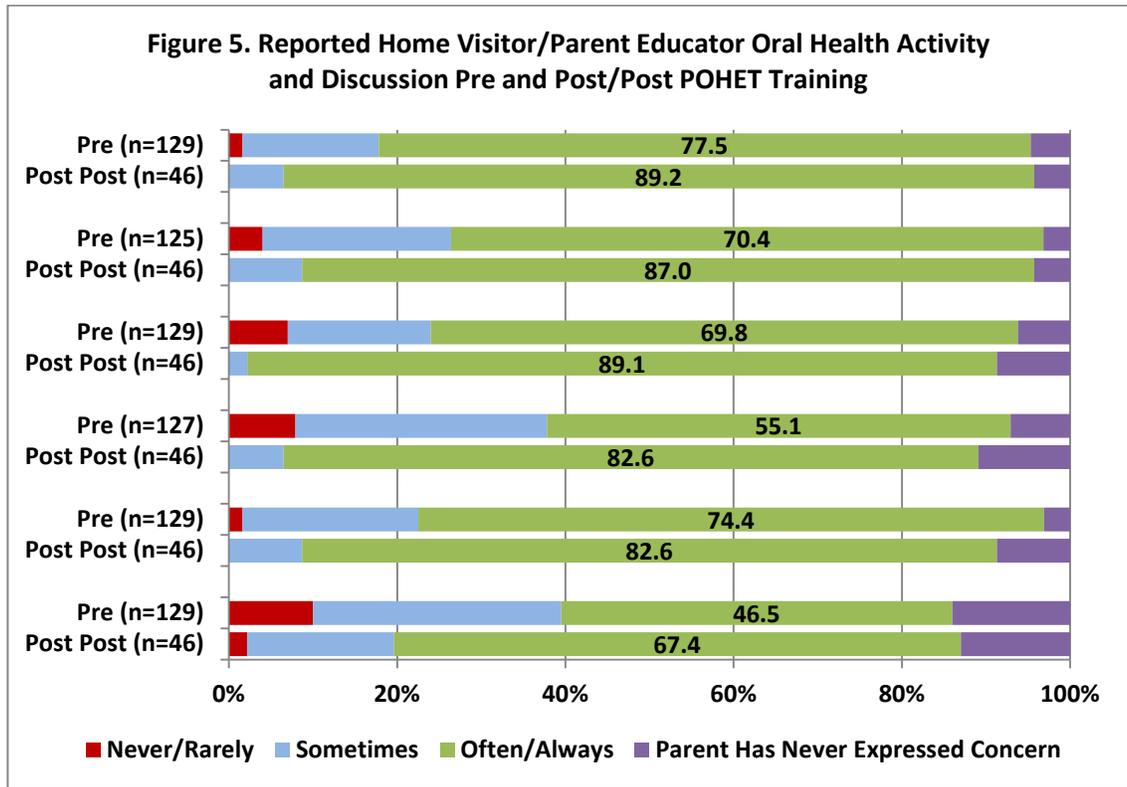
www.chawiconsin.org

This project is funded in part by the Healthier Wisconsin Partnership Program, a component of the Advancing a Healthier Wisconsin endowment at the Medical College of Wisconsin.

**If Parents/Caregivers Express Concern about Their Child's Teeth, Home Visitors/Parent Educators Reported Frequency of Discussions with WI EHS Parents/Caregivers**

**Oral Health Topics**

- Oral health for children 0 to 3 years
- Cleaning infant/children's teeth
- Giving a baby a bottle to bed/crib
- Cleaning infant's gums
- Age child should see dentist
- Drinking fluoridated water

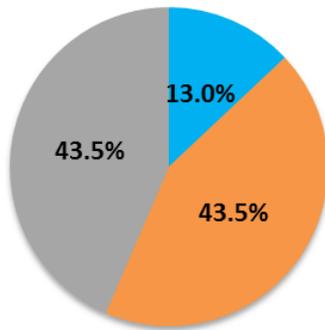


**Legend:** Prior to the EIB POHET training, if a parent expressed concern, the **range** of home visitors/parent educators discussing the oral health topics with families **“Often/Always”** was **46.5% to 77.5%**. In the **Post/Post** survey of EIB-trained home visitors/parent educators, the **frequency** of discussing oral health topics with families **“Often/Always”** ranged from **67.4% to 89.2%**, over a six month period.

**Data Source:** EIB Pre and Post POHET Training Survey of WI EHS Home Visitors/Parent Educators

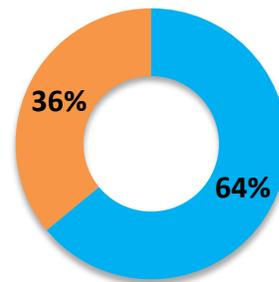


Figure 6. How Often Should Oral Health Training Occur?  
(n=46)



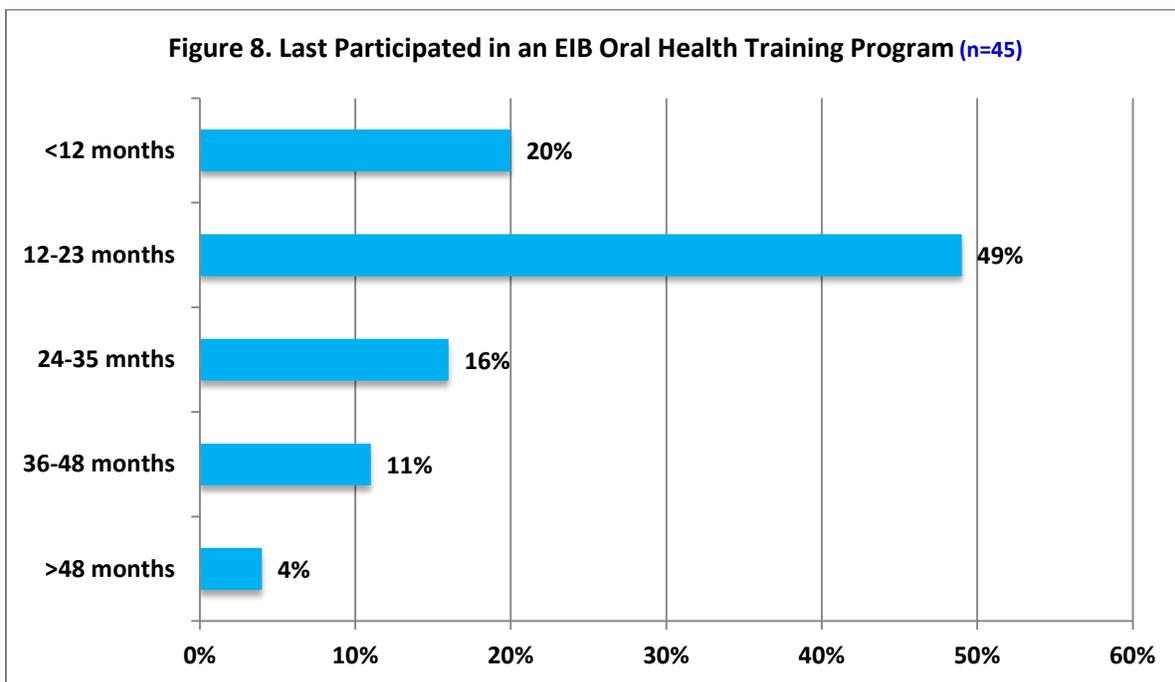
■ 6-Month Review ■ Annual Review ■ 2-Year Review

Figure 7. Oral Health Training Should be Available...  
(n=42)



■ In-Person ■ On-line

Figure 8. Last Participated in an EIB Oral Health Training Program (n=45)



**Legend:** In Figure 6, six months after HV/PE EIB training, 43.5% of respondents indicated that they would prefer either an annual review, or 2-year review. In Figure 7, 64% of respondents noted their preference for In-Person oral health training. Figure 8 shows that 49% of respondents participated in the EIB Oral Health Training Program within the last 12-23 months.

**Data Source:** Survey Monkey, June 2016 Assessment of EIB-Trained Home Visitors/Parent Educators

## Parents/Caregivers Oral Health Knowledge, Beliefs and Attitudes: 1<sup>st</sup> and 3<sup>rd</sup> Visit Surveys

### Parents/Caregivers Demographic Overview

- **186 EHS Parents/Caregivers/Pregnant Women** enrolled in the POHET evaluation and completed the **Session 1** survey as baseline data.
- **164 EHS Parents/Caregivers/Pregnant Women** completed the **Session 2** surveys
- **107 EHS Parents/Caregivers/Pregnant Women** completed the **Session 3** surveys
- **51 Pregnant Women** enrolled in **EIB Research**
  - **Previous Training reported in infant/children oral health:** 26% of Enrollees
  - **Pregnant:** 27% of Enrollees
  - **Median Age:** 29 years old (range 18-56 years)
  - **Children:** Paired parents/caregivers-youngest child data for 186 participants (representing **77%** of the enrollees). Only **23%** of parents/caregivers have **multiple children**.

**Table 5. Parents/Caregivers Surveyed in EIB Project by WI EHS Program**

EHS Programs	Number of Parents/Caregivers/Pregnant Women	%
CAP Services-Stevens Point	77	41.4
CESA11-Turtle Lake	33	17.7
CESA7	1	0.5
Guadalupe Early Head Start	19	10.3
Kenosha Achievement Center	33	17.7
National Center for Learning Excellence	18	9.7
Oneida Early Head Start	3	1.6
Wood County Head Start	2	1.1
<b>TOTAL</b>	<b>186</b>	<b>100</b>

Legend: Table 5 demonstrates that 8 of the 14 WI EHS Programs' parents/caregivers consented to participate in the EIB Research surveys; meanwhile, CAP Services- Stevens Point constituted over 40% of the collected data.

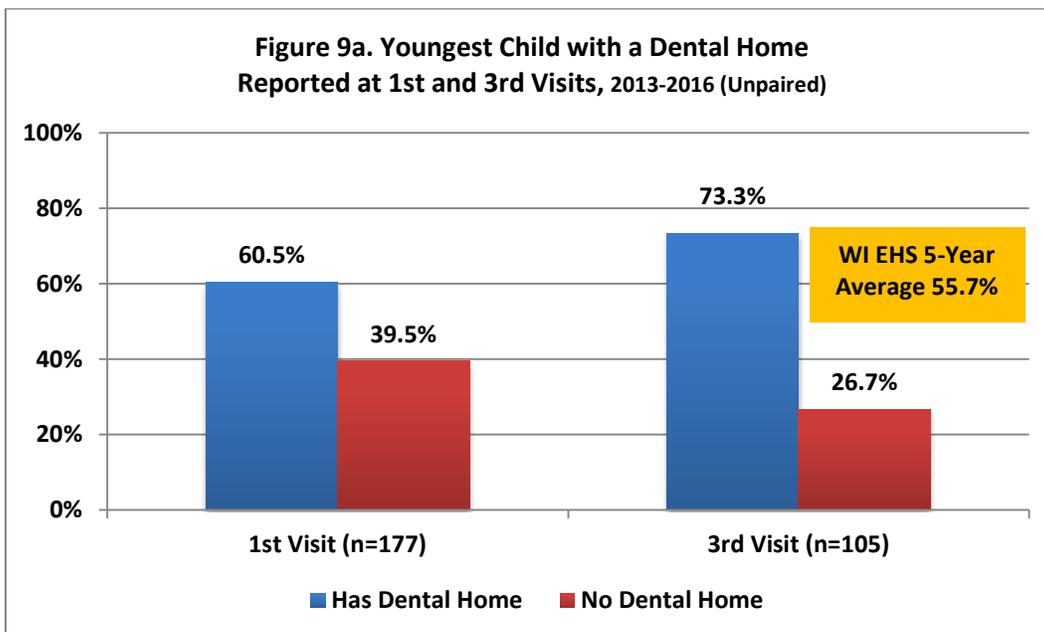
**Table 6. Educational Attainment of EIB Participants  
Parents/Caregivers and Pregnant Women (n=186)**

Parents/Caregivers/Pregnant Women	
Not completed high school	23.1%
High school graduate/GED	37.9%
More than high school education	36.8%
Unknown	2.2%

Legend: Approximately, **three-fourths (74.7%)** of participating **Parents/Caregivers/Pregnant Women** in EIB had **greater than or equal to a high school education/GED** as shared in **Table 6**.

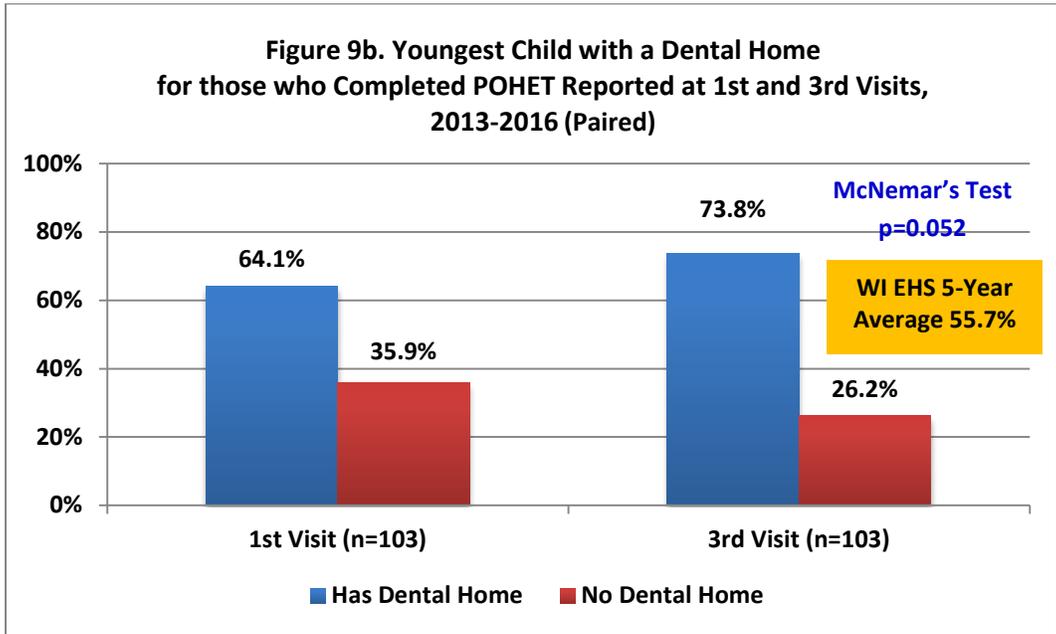
### **EIB Parents/Caregivers Reported Oral Health Practices (1<sup>st</sup> and 3<sup>rd</sup> Visits)**

EIB provided oral health education to pregnant women and parents/caregivers of infants and toddlers enrolled in Wisconsin’s Early Head Start (EHS) Program. The EIB protocol prescribed that home visitors/parent educators conduct 4 oral health education sessions with each EHS pregnant woman and family. Evaluation surveys were used to document changes in oral health knowledge and behaviors of parents/caregivers following the use of the POHET using a modified evaluation instrument developed from validated evaluation sources. Three surveys were administered to pregnant women and parents/caregivers prior to the **first, second and third oral health education sessions** following an MCW IRB approved protocol. The first and third surveys (1<sup>st</sup> visit and 3<sup>rd</sup> visit) were conducted within a 6 month period. Subsequent to an informed consent process, home visitors/parent educators completed paper surveys by obtaining verbal responses to questions from the pregnant women or parents/caregivers. Consents, surveys and educational materials were available in English and Spanish. **Figures 9a-14d** below demonstrate changes in parents’/caregivers’ oral health knowledge and behavioral variables between the 1<sup>st</sup> and 3<sup>rd</sup> visits among unpaired, paired participants and for paired CAP Services-Steven Point participants.



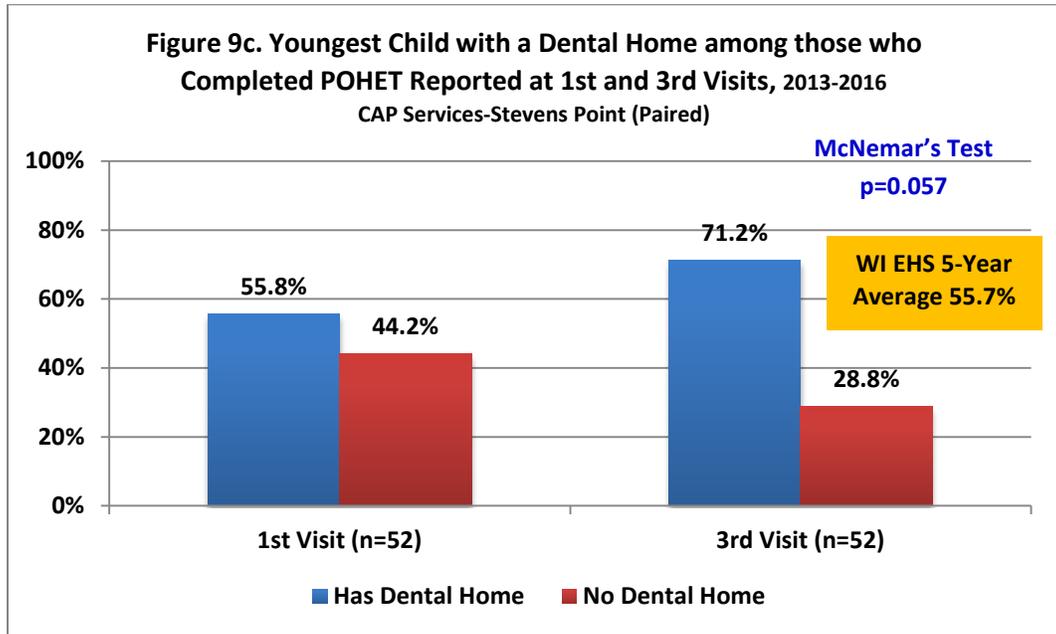
**Legend:** At the 1<sup>st</sup> visit, **Figure 9a** shows that **60.5% of parents/caregivers** at the 1<sup>st</sup> visit of EIB reported that their youngest child had a **dental home**, which **increased from 60.5% to 73.3%** at their **3<sup>rd</sup> visit** compared to the **WI EHS 5-year dental home average of 55.7%** from 2011-2016, as reported by PIR.

**Data Source:** EIB Parent Surveys, Session 1 and Session 3 and OHS PIR – EHS data.



**Legend:** Upon initial assessment, Figure 9b illustrates that 64.1% of parents/caregivers at the 1<sup>st</sup> visit in EIB reported that their youngest child had a dental home, which increased to 73.8% at their 3<sup>rd</sup> visit compared to the WI EHS 5-year dental home average of 55.7% from 2011-2016, which is borderline statistically significant (p=0.052).

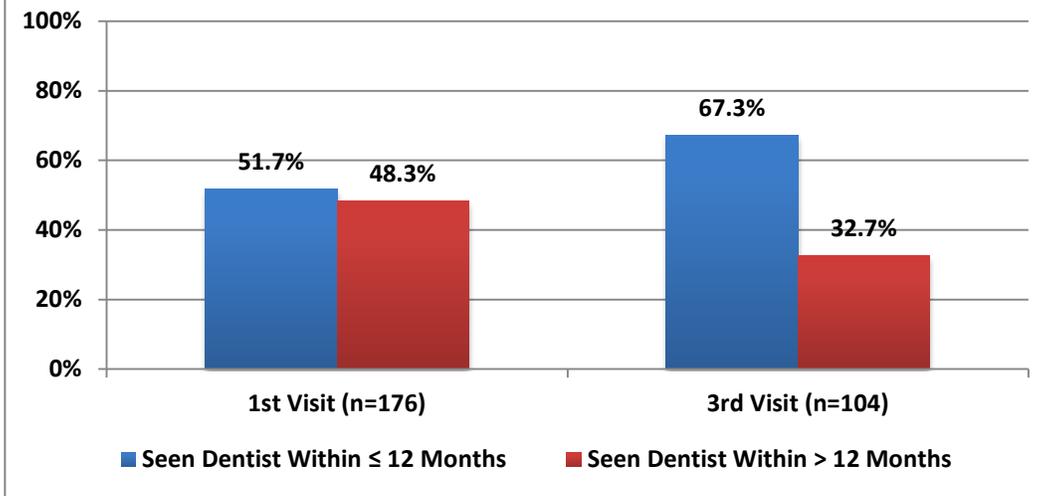
**Data Source:** EIB Parent Surveys, Session 1 and Session 3 and OHS PIR – EHS data.



**Legend:** Upon initial assessment, Figure 9c indicates that 55.8% of parents/caregivers at the 1<sup>st</sup> visit in EIB reported with that their youngest child (registered at CAP Services-Stevens Point) had a dental home, which increased to 71.2% at their 3<sup>rd</sup> visit compared to the WI EHS 5-year average of 56.7% from 2011-2016, which is not statistically significant (p=0.057).

**Data Source:** EIB Parent Surveys, Session 1 and Session 3 and OHS PIR – EHS data.

**Figure 10a. Percentage of Youngest Child Having Seen a Dentist < 12 months Reported at 1st and 3rd Visits, 2013-2016 (Unpaired)**

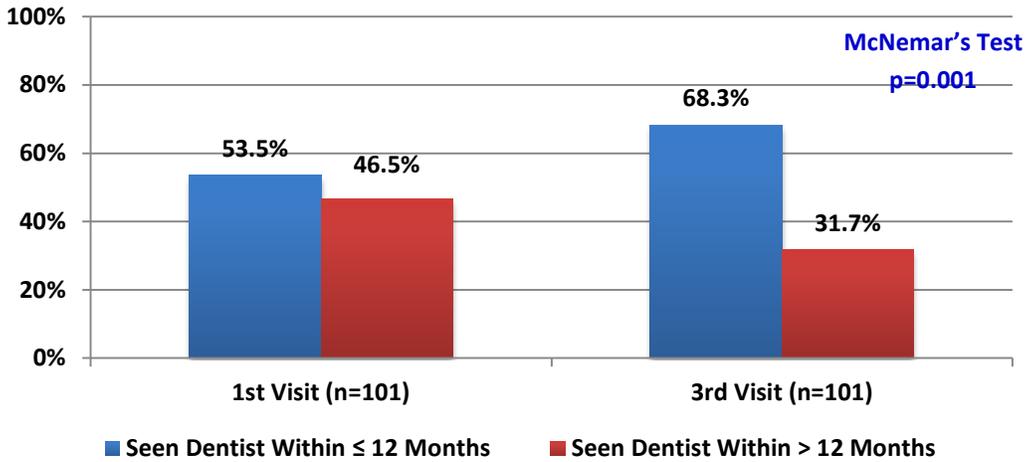


**Legend:** Upon initial assessment, Figure 10a denotes that 51.7% of parents/caregivers at the 1<sup>st</sup> visit in EIB reported that their youngest child had seen a dentist within a year, which increased to 67.3% at their 3<sup>rd</sup> visit.

**Data Source:** EIB Parent Surveys, Session 1 and Session 3. OHS PIR – EHS data for indicators in this population is not available.



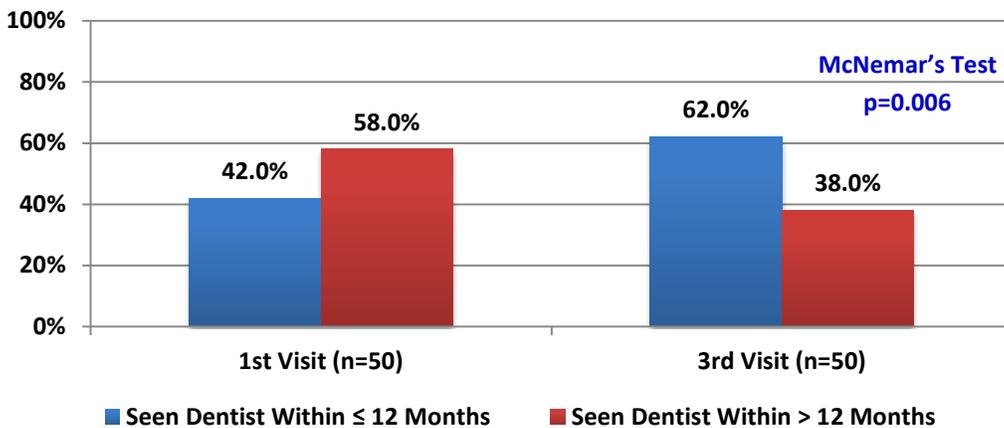
**Figure 10b. Percentage of Youngest Child Having Seen a Dentist < 12 months among those who Completed POHET Reported at 1st and 3rd Visits, 2013-2016 (Paired)**



**Legend:** Upon initial assessment, Figure 10b reveals that 53.5% of parents/caregivers at the 1<sup>st</sup> visit in EIB reported that their youngest child had seen a dentist within the last year. At the 3<sup>rd</sup> visit, 68.3% reported that their paired youngest child had seen a dentist within the last year, which is statistically significant (p=0.001).

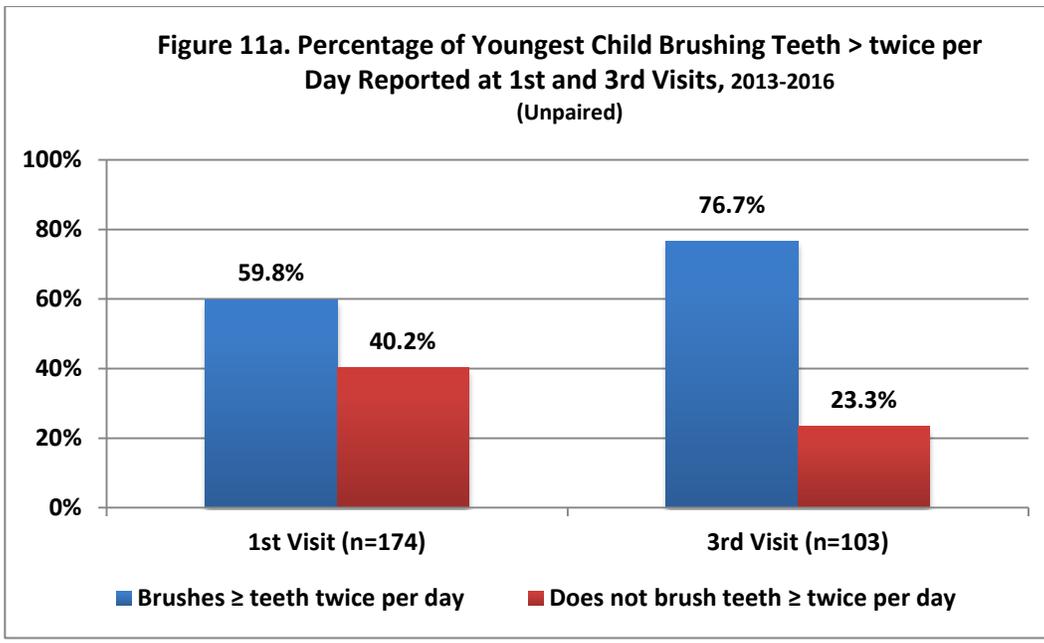
**Data Source:** EIB Parent Surveys, Session 1 and Session 3. OHS PIR – EHS data for indicators in this population is not available.

**Figure 10c. Percentage of Youngest Child Having Seen a Dentist < 12 months among those who Completed POHET Reported at 1st and 3rd Visits, 2013-2016 CAP Services-Stevens Point (Paired)**



**Legend:** Upon initial assessment, Figure 10c demonstrates that 42% of parents/caregivers at 1<sup>st</sup> visit in EIB reported that their youngest child (registered at CAP Services-Stevens Point) had seen a dentist within the last year. At the 3<sup>rd</sup> visit, 62% reported that their paired youngest child had seen a dentist within the last year, which is statistically significant (p=0.006).

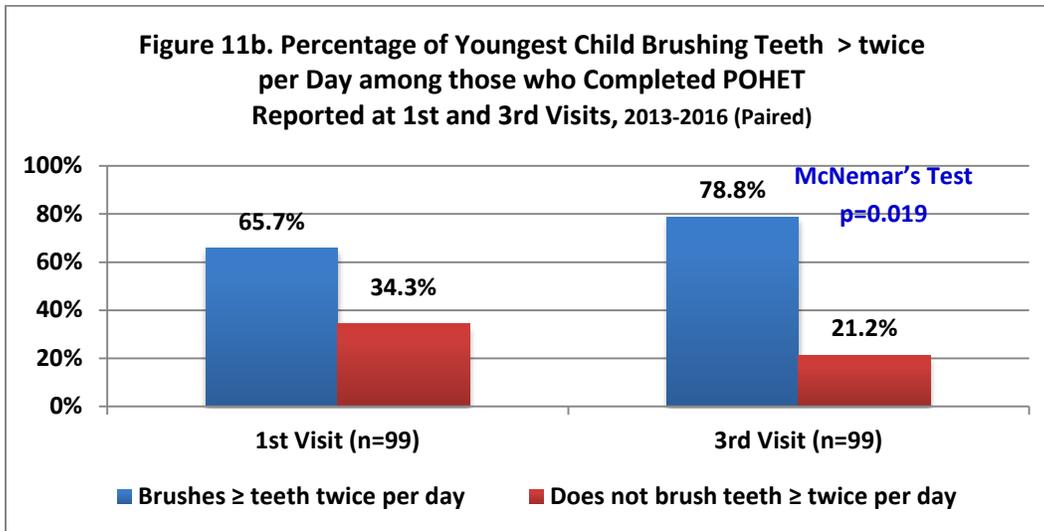
**Data Source:** EIB Parent Surveys, Session 1 and Session 3. OHS PIR – EHS data for indicators in this population is not available.



**Legend:** Upon initial assessment, Figure 11a denotes that 59.8% of parents/caregivers at 1<sup>st</sup> visit in EIB reported that their youngest child brushed at least twice per day. At the 3<sup>rd</sup> visit, this percentage increased to 76.7%.

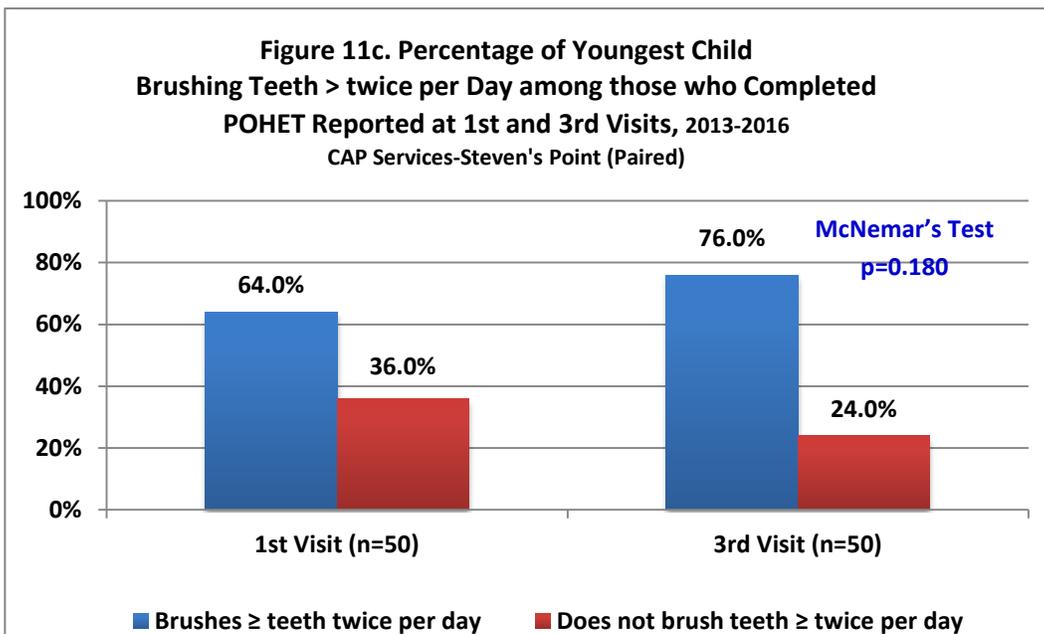
**Data Source:** EIB Parent Surveys, Session 1 and Session 3. OHS PIR – EHS data for indicators in this population is not available.





**Legend:** Upon initial assessment, Figure 11b illustrates that 65.7% of parents/caregivers at 1<sup>st</sup> visit in EIB reported that their youngest child brushed at least twice per day. At the 3<sup>rd</sup> visit, this percentage increased to 78.8%, which is statistically significant (p=0.019).

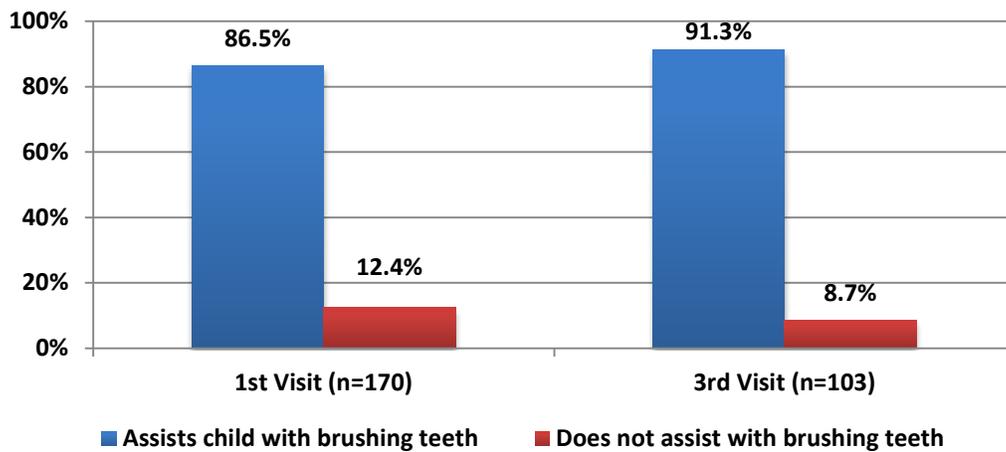
**Data Source:** EIB Parent Surveys, Session 1 and Session 3. OHS PIR – EHS data for indicators in this population is not available.



**Legend:** Upon initial assessment, Figure 11c illustrates that 64% of parents/caregivers at 1<sup>st</sup> visit in EIB reported that their youngest child (registered at CAP Services-Steven's Point) brushed at least twice per day. At the 3<sup>rd</sup> visit, this percentage increased to 76%, but was not statistically significant (p=0.180).

**Data Source:** EIB Parent Surveys, Session 1 and Session 3. OHS PIR – EHS data for indicators in this population is not available.

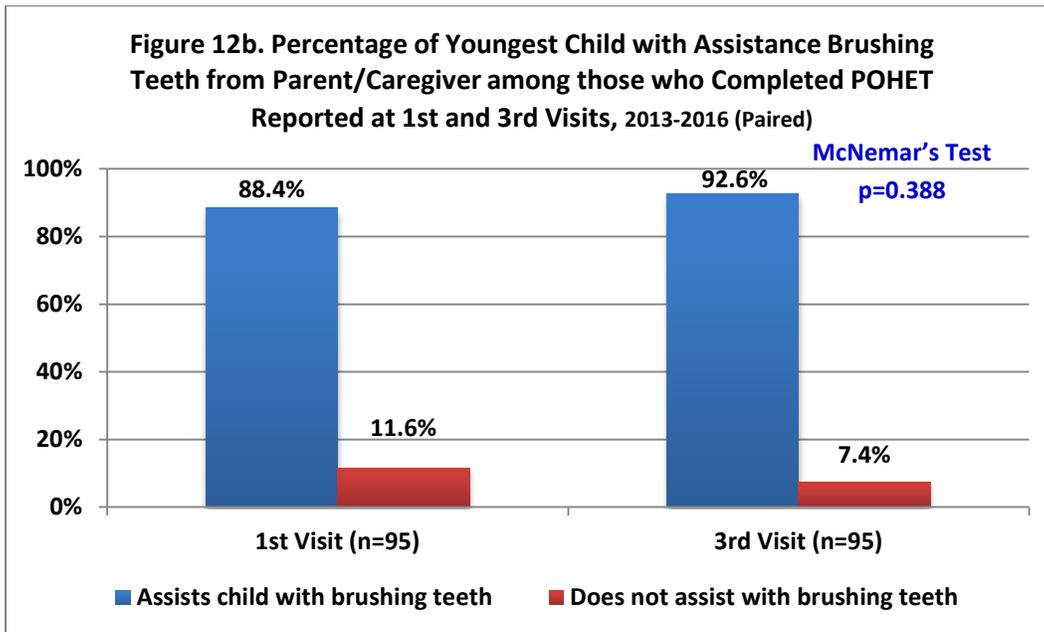
**Figure 12a. Percentage of Youngest Child with Assistance Brushing Teeth from Parent/Caregiver Reported at 1st and 3rd Visits, 2013-2016 (Unpaired)**



**Legend:** Upon initial assessment, Figure 12a reveals that 86.5% of parents/caregivers at the 1<sup>st</sup> visit in EIB reported that their youngest child had received assistance with brushing their teeth. At the 3<sup>rd</sup> visit, this percentage increased to 91.3%.

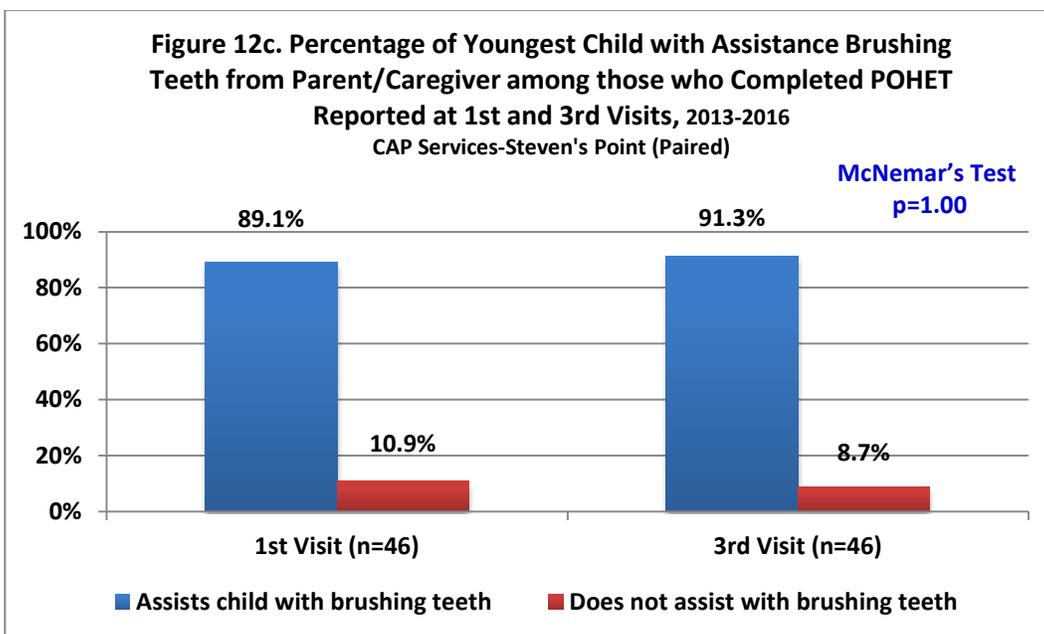
**Data Source:** EIB Parent Surveys, Session 1 and Session 3. OHS PIR – EHS data for indicators in this population is not available.





**Legend:** Upon initial assessment, Figure 12b illustrates that 88.4% of parents/caregivers at the 1<sup>st</sup> visit in EIB reported that their youngest child had received assistance with brushing their teeth. At the 3<sup>rd</sup> visit, this percentage increased to 92.6%, but was not statistically significant (p=0.388).

**Data Source:** EIB Parent Surveys, Session 1 and Session 3. OHS PIR – EHS data for indicators in this population is not available.



**Legend:** Upon initial assessment, 89.1% of parents/caregivers at 1<sup>st</sup> visit in EIB reported that youngest child (registered at CAP Services – Steven's Point) had received assistance with brushing their teeth. At the 3<sup>rd</sup> visit, this percentage increased to 91.3%, but this increase was not statistically significant (p=1.00).

**Data Source:** EIB Parent Surveys, Session 1 and Session 3. OHS PIR – EHS data for indicators in this population is not available.

### Summary of Parents/Caregivers Reported Oral Health Practices

The EIB POHET intervention induced positive oral health behavior changes within the target population at all levels of analysis for parents/caregivers paired with their youngest child. Parents/caregivers reported a **statistically significant increase in dental home rates** for their youngest child by the 3<sup>rd</sup> visit (see Figures 9a-9c). The self-report responses showed a **statistically significant increase** in the percentage of parents whose **youngest child had seen a dentist within the last 12 months**. The Project also observed improved tooth brushing habits, with parents/caregivers reporting increased rates of their youngest child **brushing twice or more per day** and **assisting their youngest child with brushing their teeth** (see Figures 11a-12c). These are significant changes in critical health behaviors that affect children's oral health outcomes.

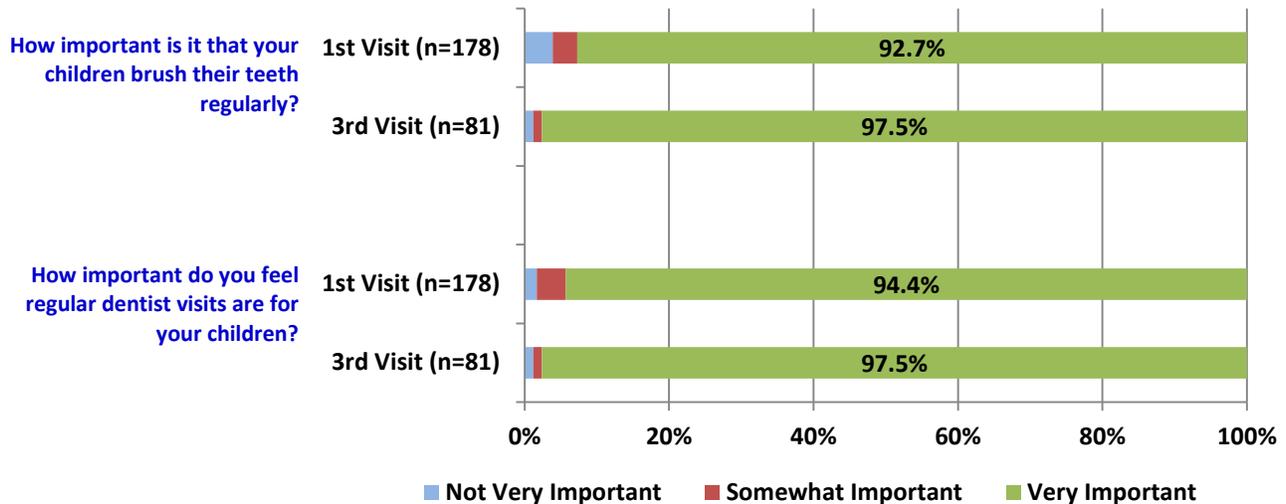


**Parents/Caregivers Oral Health Attitudes and Beliefs**

The parents'/caregivers 'assessment survey also included questions about oral health attitudes and beliefs during the same visits with home visitors/parent educators. CAP Services, Stevens Point data is not highlighted for the following variables.

**Oral Health Questions**

**Figure 13a. EIB Parents'/Caregivers' Oral Health Beliefs and Attitudes Reported at 1st and 3rd Visits, 2013-2016 (Unpaired)**

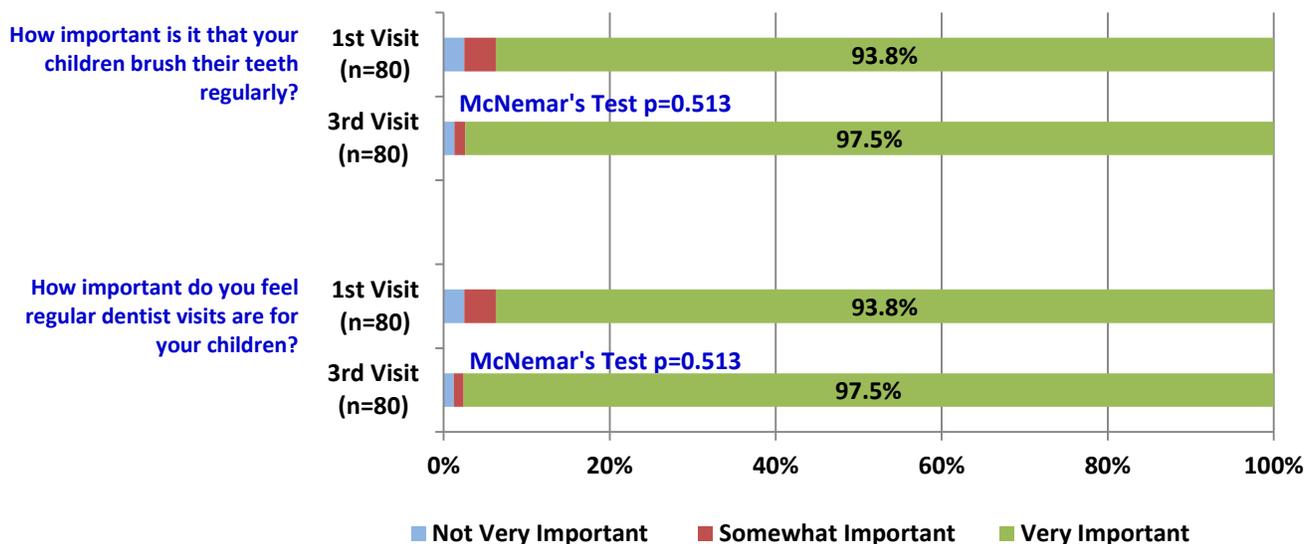


**Legend:** In Figure 13a, before the educational intervention, parents/caregivers in EIB reported that children brushing teeth regularly and regular dental visits were “Very Important” to them (92.7% and 94.4%, respectively). After 6 months of intervention, these beliefs and attitudes were increased to 97.5% for both items.

**Data Source:** EIB Parent Surveys, Session 1 and Session 3.

**Figure 13b. EIB Parents'/Caregivers' Oral Health Beliefs and Attitudes Reported at 1st and 3rd Visits, 2013-2016 (Paired)**

**Oral Health Questions**

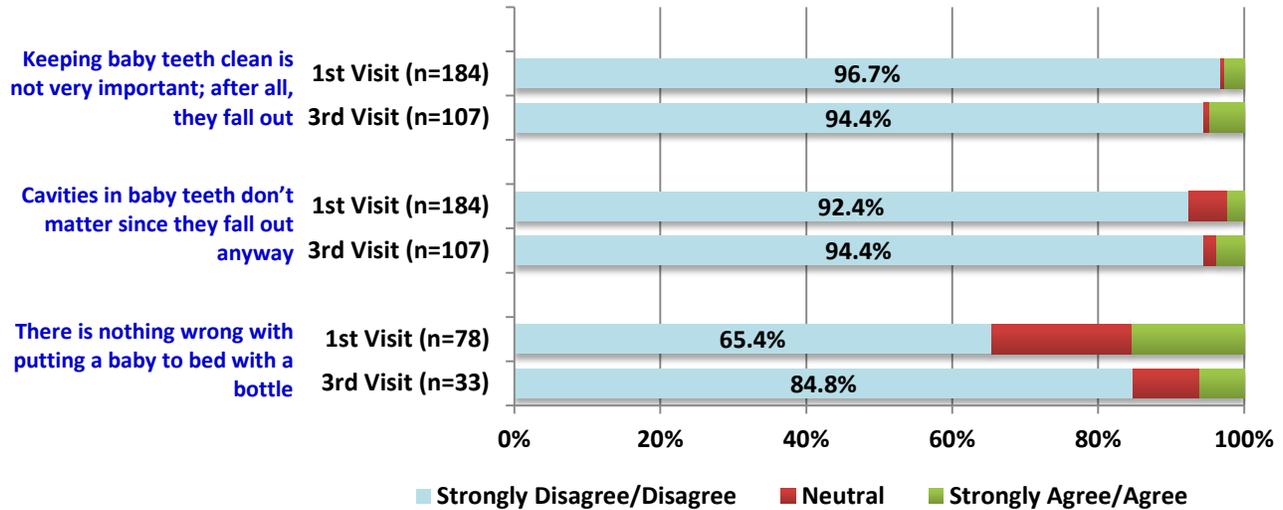


**Legend:** In Figure 13b, before the educational intervention, parents/caregivers in EIB reported that children brushing teeth regularly and regular dental visits were “Very Important” to them (93.8% for both items). Over 6 months of intervention, these beliefs and attitudes were increased to 97.5% for both items when pairing parents'/caregivers' 3<sup>rd</sup> visit responses. These changes were not statistically significant (p=0.513).

**Data Source:** EIB Parent Surveys, Session 1 and Session 3.

**Figure 14a. EIB Parents'/ Caregivers' Beliefs and Attitudes Reported at 1st and 3rd Visits, 2013-2016 (Unpaired)**

**Oral Health Questions**

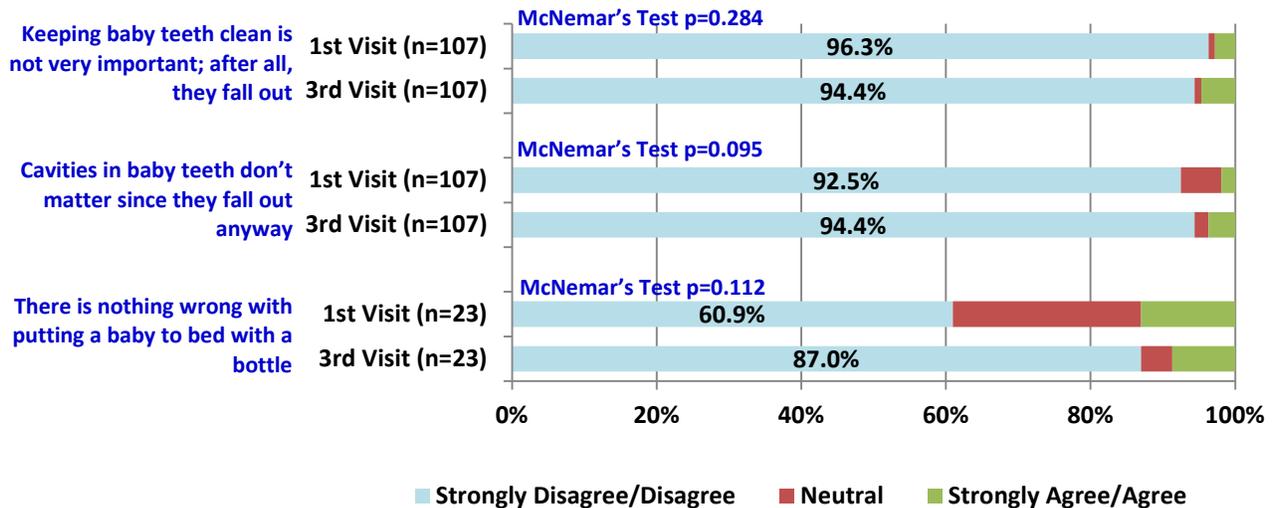


**Legend:** Parents/caregivers at EIB reported correctly that they “Strongly Disagreed” or “Disagreed” with various concepts related to early childhood oral health before the educational intervention. Over 6 months of intervention, they correctly disagreed with false oral health statements. Of note, at the 3<sup>rd</sup> visit, parents/caregivers reported increased correct disagreements (from 65.4% to 84.8%) with the belief that there is nothing wrong with putting babies to bed with bottles as demonstrated in Figure 14a above.

**Data Source:** EIB Parent Surveys, Session 1 and Session 3.

**Figure 14b. EIB Parents'/ Caregivers' Beliefs and Attitudes Reported at 1st and 3rd Visits Over a 6-Month Period, 2013-2016 (Paired)**

**Oral Health Questions**

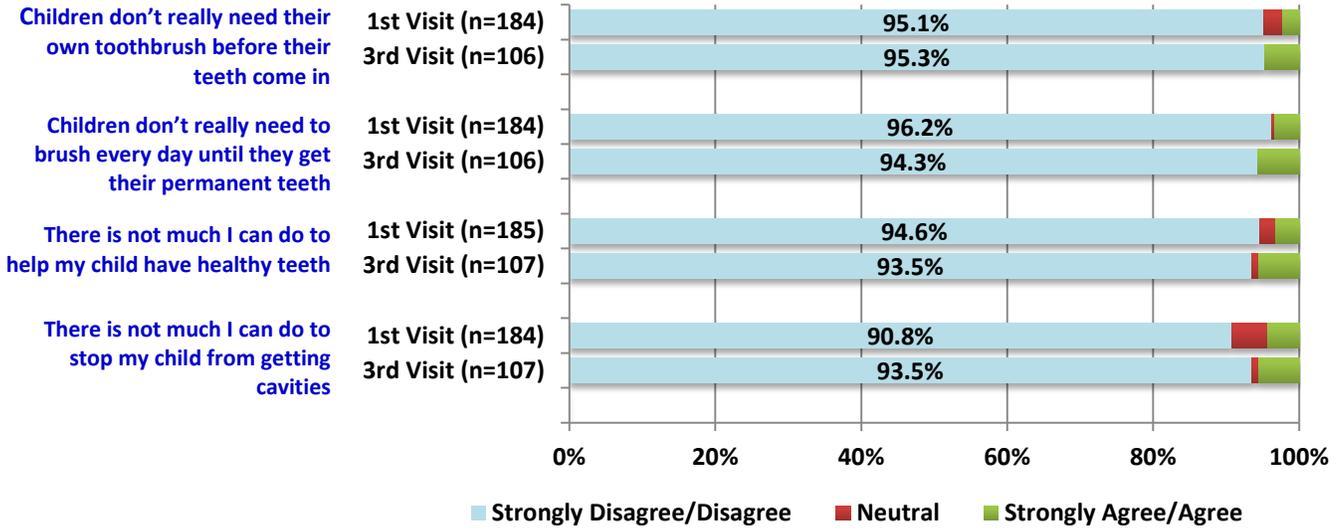


**Legend:** Parents/caregivers at EIB reported that they correctly “Strongly Disagreed” or “Disagreed” with various concepts related to early childhood oral health before the educational intervention. Over 6 months of intervention, they correctly disagreed with false oral health statements. Of note, at the 3<sup>rd</sup> visit, parents/caregivers reported increased correct disagreements ranged from 60.9% to 87% with the notion that babies should be put to bed with bottles as demonstrated in Figure 14b above.

**Data Source:** EIB Parent Surveys, Session 1 and Session 3.

Figure 15a. EIB Parents' / Caregivers' Beliefs and Attitudes Reported at 1st and 3rd Visits, 2013-2016 (Unpaired)

Oral Health Questions

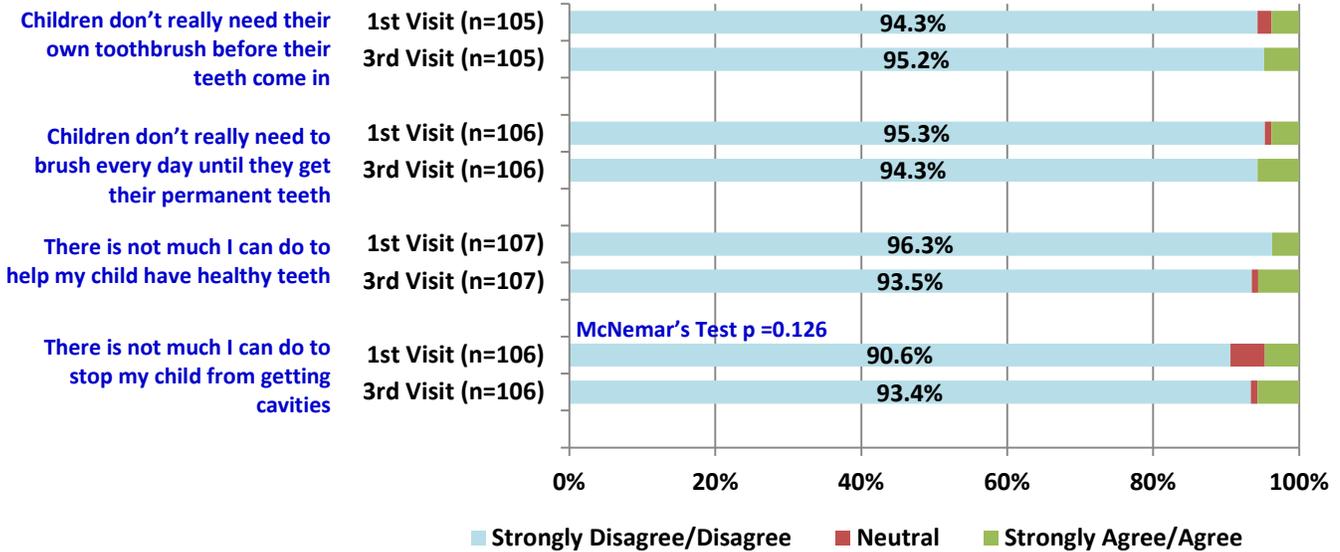


Legend: Parents/caregivers at EIB reported that they correctly “Strongly Disagreed” or “Disagreed” with various concepts related to early childhood oral health before the educational intervention. After 6 months of intervention, they correctly *disagreed with false oral health statements*.

Data Source: EIB Parent Surveys, Session 1 and Session 3.

Figure 15b. EIB Parents'/Caregivers' Beliefs and Attitudes Reported at 1st and 3rd Visits, 2013-2016 (Paired)

Oral Health Questions



Legend: Parents/caregivers at EIB reported that they correctly “Strongly Disagreed” or “Disagreed” with various concepts related to early childhood oral health before the educational intervention. Over 6 months of intervention, they correctly *disagreed with false oral health statements*. Of note, at the 3<sup>rd</sup> visit, parents/caregivers reported increased correct disagreements ranged from 90.6 to 93.4% with the belief that “there is not much [parents] can do to stop [their] child from getting cavities,” though not statistically significant (p=0.126).

Data Source: EIB Parent Surveys, Session 1 and Session 3.

**Summary of Parents/Caregivers Oral Health Beliefs and Attitudes**

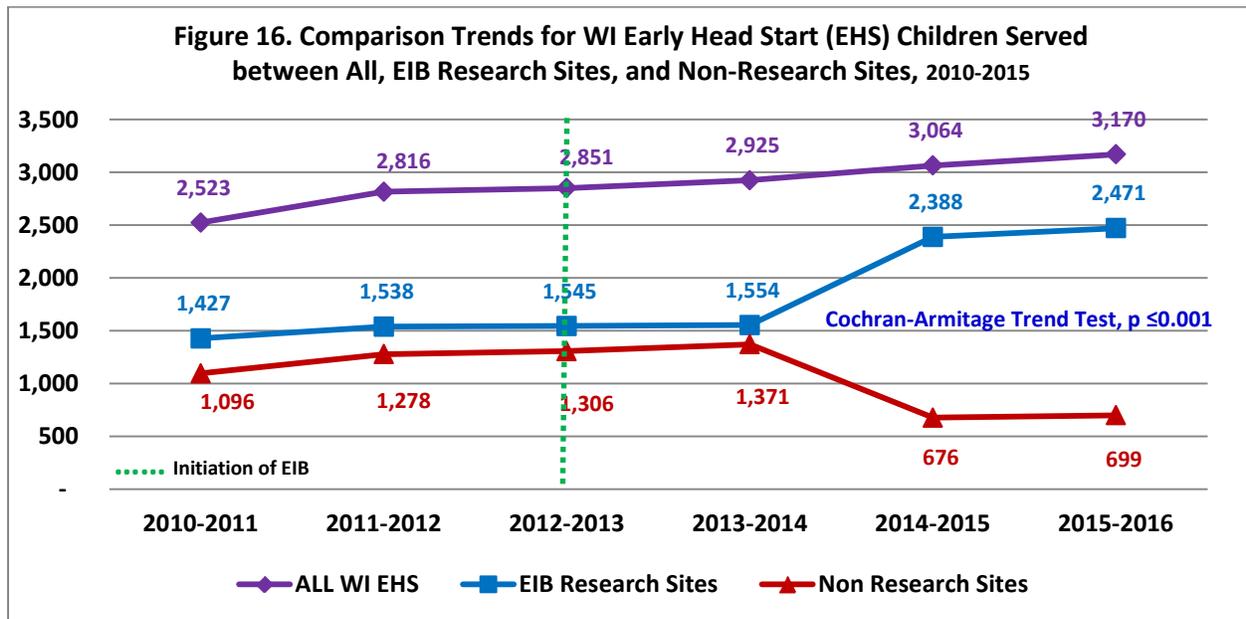
This data demonstrate parents'/caregivers' oral health beliefs and attitudes at the 1<sup>st</sup> visit were sustained at the 3<sup>rd</sup> visit, after the EIB POHET intervention. Parents'/caregivers' oral health attitudes changed/improved slightly for select survey items, but these changes were not considered statistically significant.

**DENTAL HOME**

**Objective 3:** Increase by 50% from the 2009-2010 baseline, the number of Wisconsin Early Head Start (WI EHS) children with a dental home from 50.7% to 71% by December 2016.

**Wisconsin Early Head Start Children Served**

Over the past 5 years, the Earlier Is Better Project has provided targeted oral health education to WI EHS Home Visitors/Parent Educators, equipping them with the Parent Oral Health Education Toolkit (POHET) to educate EHS parents/caregivers on important oral health topics. Wisconsin Early Head Start provides support to over 3,000 low-income infants and toddlers and 300 pregnant women in Wisconsin per year. Utilizing EHS home visitors/parent educators to deliver oral health education, Earlier Is Better was able to *build upon existing EHS infrastructure* to impact the parents, infants, and toddlers within WI Early Head Start. **Figure 16** illustrates the total number of WI EHS children served.

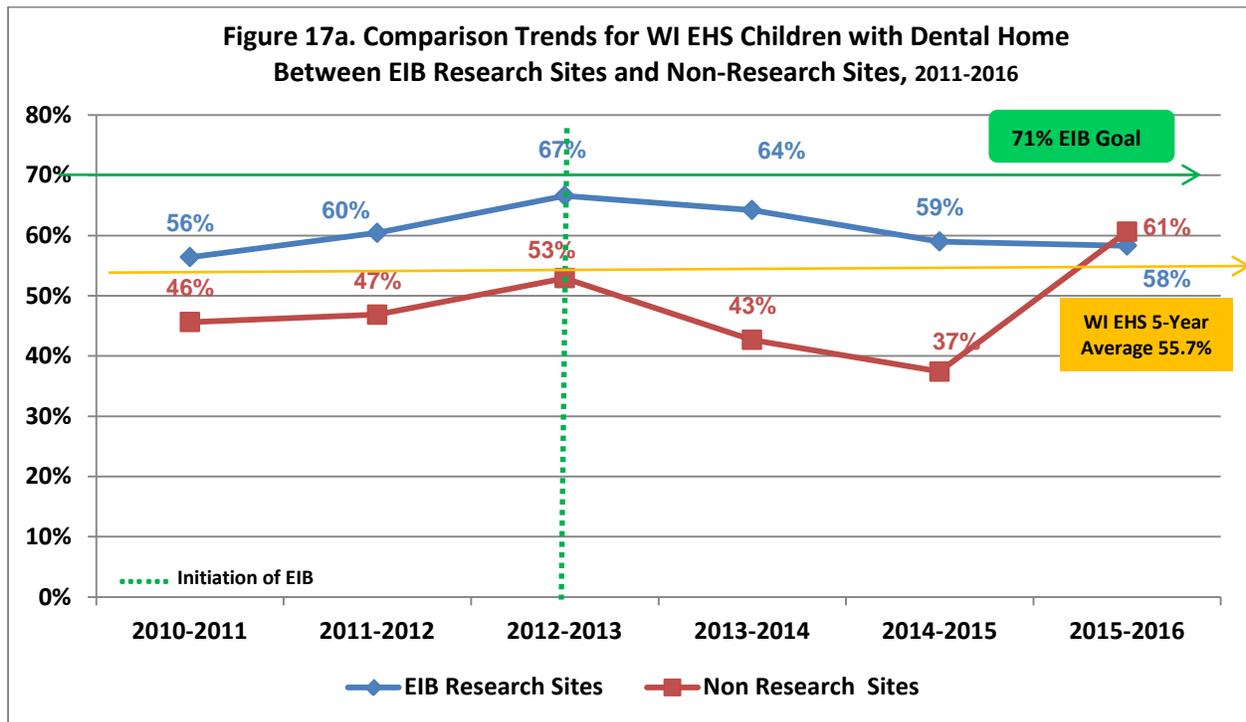


**Legend:** Statewide, enrollment in WI EHS ranged from 2,523 in 2010-2011 to 3,170 in 2015-2016, reflecting a 26% increase. The number of children that could be impacted through the EIB Project (2015-2016) was 3,170 children. Approximately, 78% of WI EHS children enrolled in WI EHS programs could benefit from the EIB POHET since its initiation, as illustrated in Figure 15. There were statistically significant more children served at the EIB Research Sites than the Non Research Sites (p<0.001).

*Data Source: OHS PIR – EHS Data*

### Dental Home Comparison Trends

The proportion of WI EHS children with a dental home was an important indicator for the Earlier Is Better Project, as having a dental home is a recommended best-practice to decrease oral disease and dental caries experience. Nationally, according to the PIR, 90% of EHS children reported having a dental home, defined as a source of continuously accessible dental care provided by a dentist. As of 2016, 59% of WI EHS children have a dental home. The American Academy of Pediatric Dentistry recommends that parents establish a dental home for their children by 12 months of age, yet having a dental home still remains a challenge and an area for improvement of oral health behaviors among WI EHS parents/caregivers. Although dental home rates for WI EHS children are lower than the national average, the state has experienced an upward trend in EHS children with dental homes (see **Figure 17a** and **Figure 17b.**). The EIB Project made progress toward meeting **Objective 3** such that there was an **increase** in WI EHS children’s **dental home rates from 50.7% to 59%** over the Project period. We believe that an **influx of oral health education** (through the **Earlier Is Better Project**, and other statewide oral health initiatives) was one of many **factors contributing to this increase** in WI EHS children with dental homes, as shown in **Figures 17a** and **17b.**

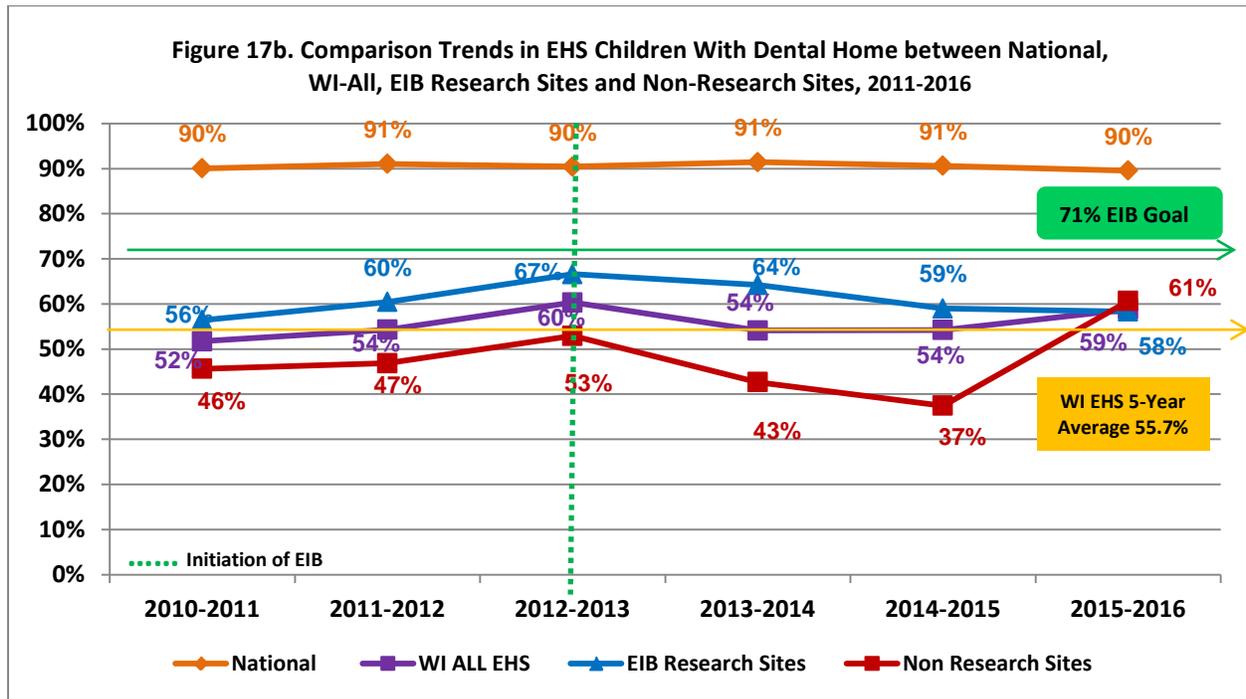


Dental Home	2011	2012	2013	2014	2015	2016	P-values 2011 vs 2016
Research Sites vs Non Research Sites	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	0.28	0.25 vs. ≤0.001

**Legend:** Starting from the EIB Intervention, in **2012-2013**, **67%** of children at **EIB Research Sites** had a **dental home**, which was **statistically significant (p≤0.001)**, more than the proportion of children in **Non-Research Sites (53%)**. However, **2014-2015 PIR data** shows that **59%** of children at **EIB Research Sites** had a **dental home**, which remains more than the proportion of children in **Non-Research Sites (37%)**. By the end of the EIB Project, PIR data reported a **sharp increase** in the proportion of children who had a **dental home at the Non-Research Sites**. This is probably secondary to a **51% reduction of enrollees in the Non-Research Sites** and a corresponding **54% increase** in enrollees at the **Research Sites** as referenced in **Figure 16**. In the final year of EIB, the **Research and Non-Research Sites reported similar dental home rates of 58% and 61% (p=0.28)**, respectively, with both rates exceeding the WI-EHS 5-Year Average (2010-2015) of 55.7%. Statistical analysis using Fisher’s exact test shows that while the **5-year change in dental home rates among Non-Research Sites was statistically significant (p≤0.001)**, the **5-year change in dental home rates among EIB Research Sites was not statistically significant from the Non-Research Sites by the end of the EIB Project(p=0.25)**.

**Data Source:** OHS PIR – EHS Data

Figure 17b. Comparison Trends in EHS Children With Dental Home between National, WI-All, EIB Research Sites and Non-Research Sites, 2011-2016



Dental Home	2011	2012	2013	2014	2015	2016
ALL WI EHS vs EIB Research Sites	0.005	≤0.001	≤0.001	≤0.001	≤0.001	0.006
ALL WI EHS vs Non Research Sites	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	0.004
<b>P-values 2011 vs 2016</b>						
ALL WI EHS	0.020					
ALL WI EHS vs EIB Research Sites	0.250					
ALL WI EHS vs Non Research Sites	≤0.001					

**Legend:** In 2010-2011, 52% of WI EHS and 56% of EIB Research Sites’ children had a dental home, compared to 90% of EHS children nationally. At the end of the EIB Research Project, 58% of children at EIB Research Sites and 59% of WI EHS children have a dental home. Before Project onset and during each year of Project implementation, a significantly higher proportion of children at EIB Research Sites had a dental home than All WI EHS children ( $p=0.005$ ;  $p\leq 0.001$ , 2012-2015; and  $p=0.006$ , 2016). Similarly, a statistically significant higher proportion of WI All EHS children had a dental home than children at Non Research Sites before Project onset and during each year of Project implementation ( $p\leq 0.001$ , 2011-2015 and  $p=0.004$ , 2016). Over the past 5 years, with the implementation of EIB Project resulting in greater exposure to 78% of WI EHS enrollees, WI EHS has experienced a statistically significant positive trend ( $p=0.020$ ) in the proportion of children with a dental home.

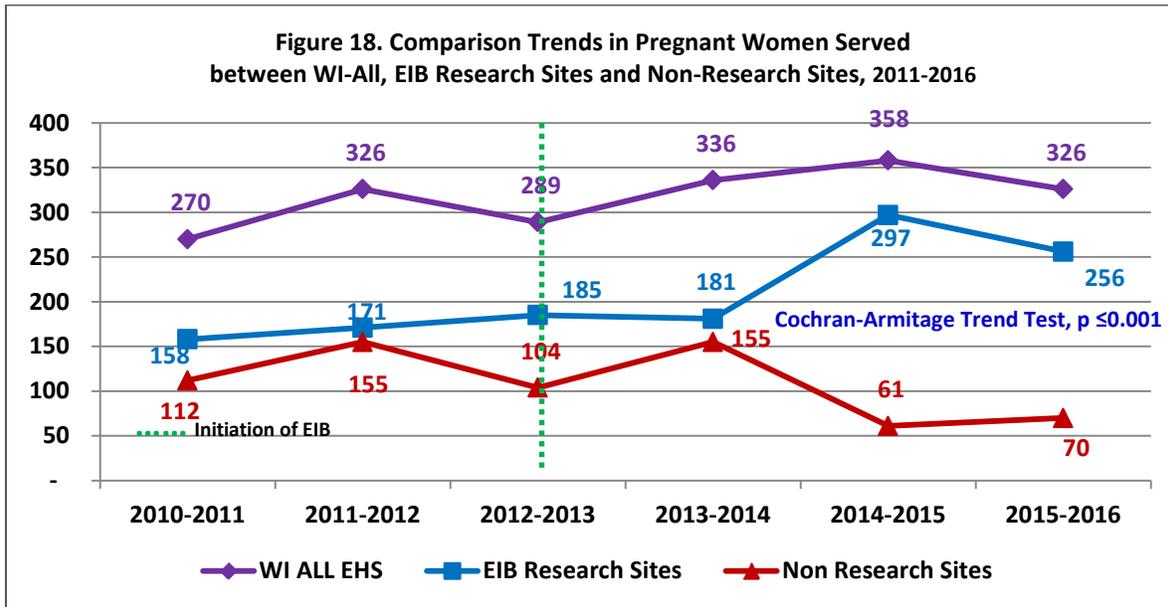
*Data Source: OHS PIR – EHS Data*

### Summary of Dental Home

Dental home rates peaked in 2012-2013, immediately after initiation of EIB Project. However, dental home rates experienced a steady decline in the two years following the initial EIB intervention (2013-2014 and 2014-2015). The subsequent declines could be related to staff turnover within the EHS sites, in that new staff didn’t receive EIB oral health training to maintain the POHET consistent exposure. Staff turnover is a common challenge among WI EHS sites, and this challenge underscores the need for **continuous training**. In the post-post assessment of EIB-trained home visitors/parent educators, respondents indicated a preference for **ongoing oral health training** on an annual and/or bi-annual basis (See **Figure 6**).

### EHS Pregnant Women Served

Earlier Is Better (EIB) operated under the premise that *early interventions*—during a child’s early childhood years, infancy, and even gestation—provide the greatest returns for reducing dental caries among young children by educating parents/caregivers (children’s first teachers) on the importance of good oral health practices. WI EHS served over 300 low-income pregnant women in EHS Program year 2015-2016. EIB was able to reach this key population by training EHS home visitors/parent educators to deliver the POHET during four home visits. **Figure 18** below shows trends in the number of pregnant women served in WI EHS from 2011-2016.



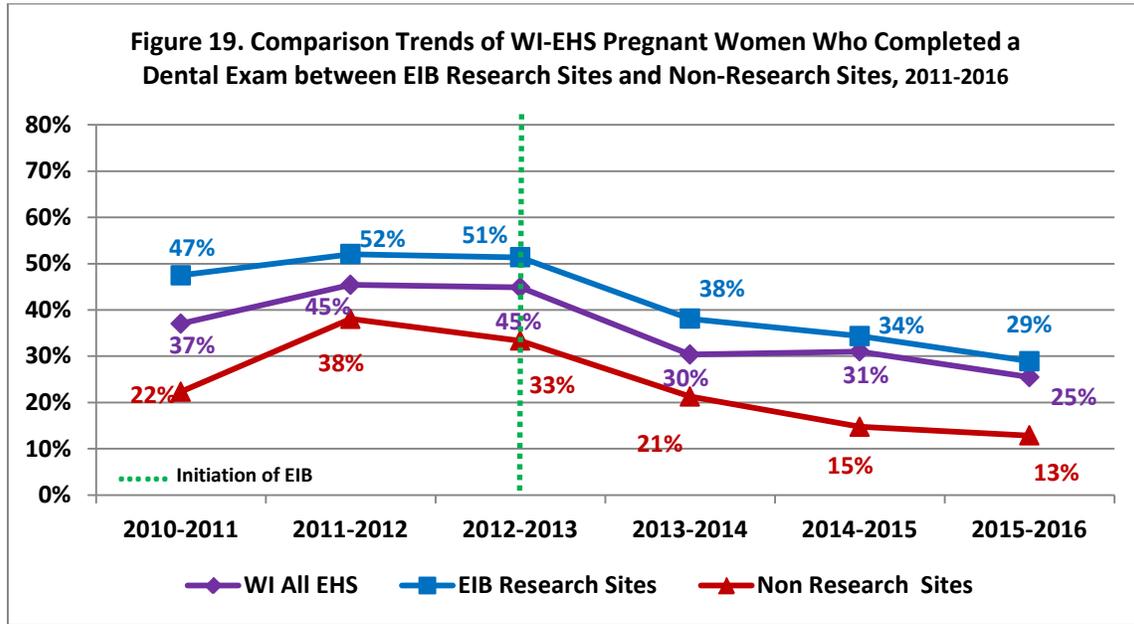
**Legend:** Statewide, enrollment of **pregnant women** served in the WI EHS programs ranged from 270 in 2010-2011 to 326 in 2015-2016, a 21% increase. Among the pregnant women **benefitting** from the EIB Project, enrollment ranged from 185 to 256, a 38% increase. Similar to the proportion of **children** impacted by the EIB Project, approximately 78% of WI EHS pregnant women were enrolled at EIB Project Research Sites offering EIB POHET since its initiation. There were **statistically significant more pregnant women served at the EIB Research Sites than the Non-Research Sites (p<0.001)**.

*Data Source: OHS PIR – EHS Data*

### Pregnant Women Dental Exam

While the POHET included education around frequency of meals, avoiding sugary beverages, the importance of preventive dental care, and good brushing habits for young children, another key oral health behavior addressed within EIB was **pregnant women completing a dental exam**. By providing knowledge about the point at which a pregnant woman can/should see a dentist (through the POHET), the Project sought to improve this oral health behavior. **Figure 19** shows comparison trends among WI EHS pregnant women completing a dental exam from 2011 to 2016, and demonstrates that the **rate of pregnant women completing a dental exam at EIB Research Sites remains significantly higher (29%) than that of the Non-Research Sites (13%)** for program year 2015-2016.

**Figure 19. Comparison Trends of WI-EHS Pregnant Women Who Completed a Dental Exam between EIB Research Sites and Non-Research Sites, 2011-2016**



Pregnant Women Dental Exam	2011	2012	2013	2014	2015	2016
ALL WI EHS vs EIB Research Sites	0.04	0.19	0.19	0.08	0.40	0.40
ALL WI EHS vs Non-Research Sites	≤0.001	0.14	0.05	0.04	0.009	0.03
EIB Research Sites vs Non Research Sites	≤0.001	0.01	0.005	≤0.001	0.002	0.005
P-values 2011 vs 2016						
WI ALL EHS Dental Exam	0.002					
EIB Research Sites Dental Exam	≤0.001					
Non Research Sites Dental Exam	0.122					

**Legend:** As shown in Figure 19, the proportion of pregnant women who completed a dental exam at WI All EHS Sites ranged from a minimum of 25% to a maximum of 45% during the past five years. At EIB Research Sites, the proportion of pregnant women who completed a dental exam ranged from a minimum of 29% to a maximum of 52% during the same period. Before initiation of EIB and during each year of implementation, a statistically significant higher proportion of pregnant women at EIB Research Sites had completed a dental exam than pregnant women at Non-Research Sites ( $p \leq 0.001$ , 2011 and 2014;  $p = 0.01$ , 2012;  $p = 0.005$ , 2013 and 2016; and  $p = 0.002$ , 2015). Although completion of dental exams for WI EHS pregnant women has been on the decline since the initiation of the EIB Project year 2012-2013, the completion of dental exams among pregnant women at EIB Research Sites remains statistically significant higher (29%,  $p = 0.005$ ) than that of the Non-Research Sites (13%) and higher than the State rate (25%) in 2015-2016, the final year of Project implementation.

*Data Source: OHS PIR – EHS Data*

### Summary of Pregnant Women Dental Exam

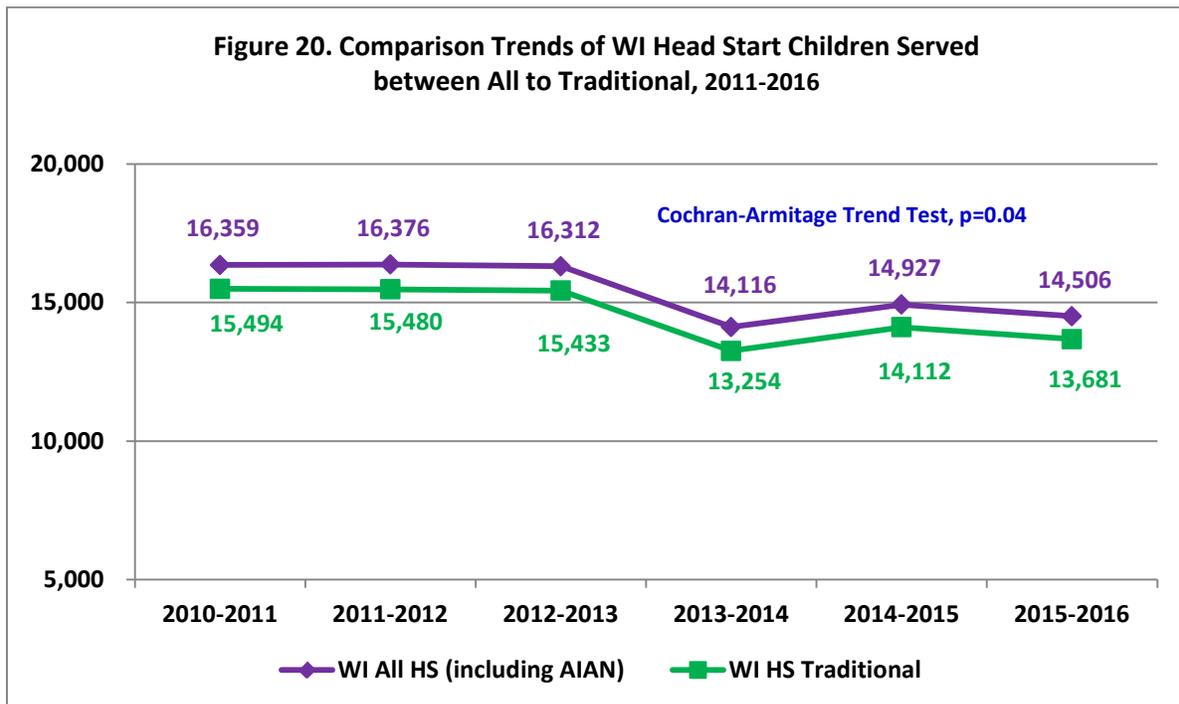
PIR data shows a steady decline in the number of WI EHS pregnant women who have had a dental exam. Nationally, there has been a similar decline. This data underscores the need for continual efforts to enhance access to dental services for pregnant women.

## DENTAL CARIES

**Objective 4:** Reduce dental caries experience in 3-year-old Wisconsin Early Head Start children from 25% to 20% by December 2016.

### Wisconsin Head Start Children

The State of Wisconsin is home to 40 Head Start Programs, having served **16,359** children in program year 2010-2011 (before the onset of EIB) and **14,506** children in program year 2015-2016. **Figure 20** below shows the cumulative enrollment of children in WI HS sites over the past five years. Federal Head Start funding sequestration in 2013 resulted in a decline of approximately 11% in funded enrollment slots. The impact of this funding cut is readily seen in the **sharp decline in the number of WI HS children served** in 2012-2013 (16,312) compared to 2013-2014 (14,116). The EIB Project directly impacted the EHS population ranging from a minimum of **2,523** children in program year 2010-2011 to a maximum of **3,170** children in 2015-2016, a fraction of the nearly **15,000 HS** children served in 2015-2016. While many EHS programs and HS programs are operated by the same Office of Head Start (OHS) grantee, the EIB Project was not able to document EHS EIB children, if/or, when they matriculated into WI HS.

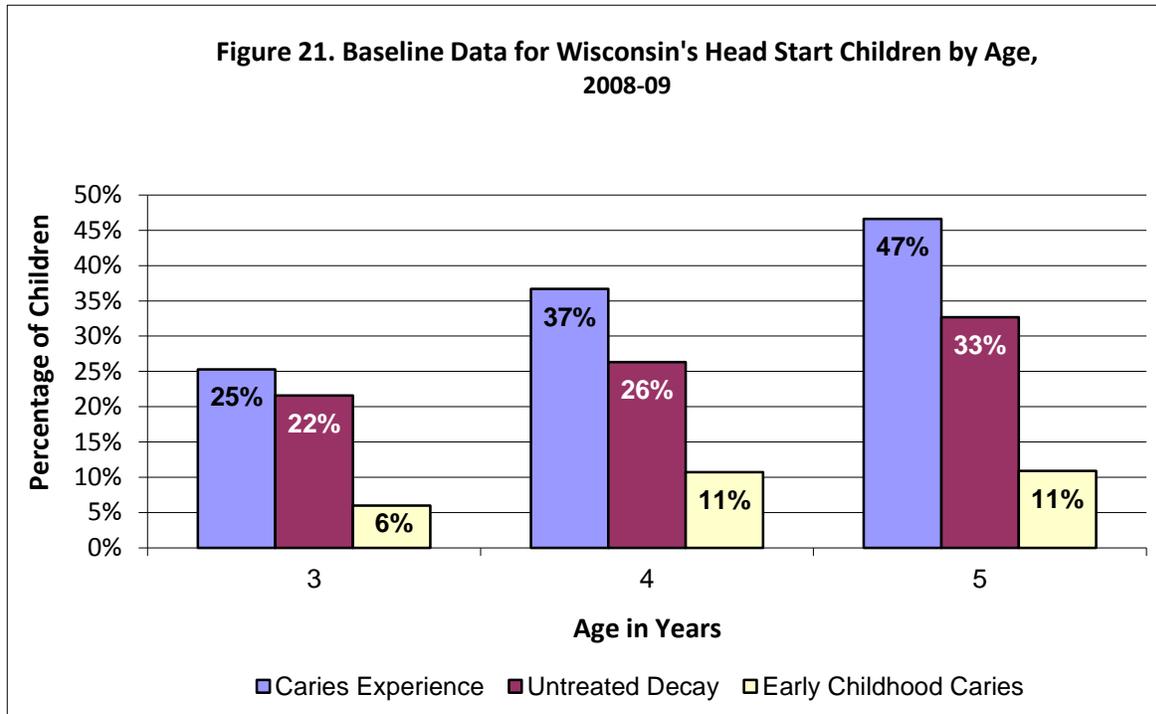


**Legend:** Statewide trends in WI Head Start enrollment of children range from **16,359** in year 2010-2011 to **14,506** in year 2015-2016. This **11% decline in WI HS children served** over the past 5 years is statistically significant ( $p=0.04$ ).

*Data Source: OHS PIR – EHS Data*

### Dental Caries among Wisconsin Head Start Children

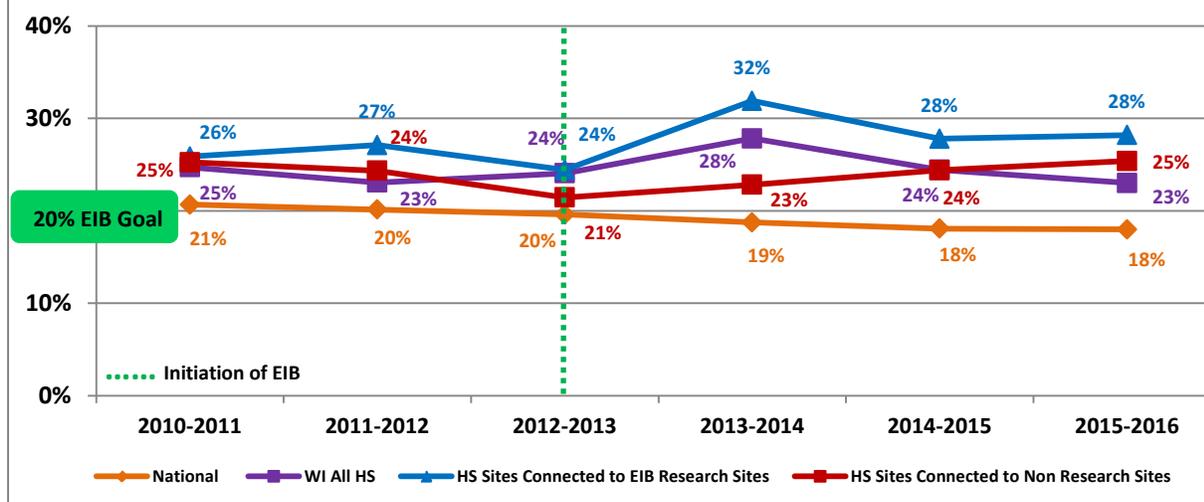
The Earlier Is Better Project aimed to improve oral health outcomes among Wisconsin Early Head Start children, a low-income population that experiences more dental decay than children from higher income families. **Figure 21** demonstrates the percentage of WI ALL HS children with caries experiences, untreated decay, and early childhood caries by each year of age referenced as baseline data before initiation of the EIB Project



**Data Source: Wisconsin Head Start Survey, 2010**

Over the past five years, the proportion of WI-ALL Head Start children who needed dental treatment has ebbed and flowed ranging from a minimum of 23% to a maximum of 28% as shown in **Figure 22**. In the final year of Project implementation, 28% of HS children connected to EIB Research Sites needed dental treatment, compared to 25% of HS children connected to Non-Research Sites, and 23% of Wisconsin HS children (ALL WI HS). The Objective 4 aim to reduce dental caries experience in WI EHS children from 25% to 20% proved to be challenging to accomplish during the Project period. EIB Partners used Office of Head Start (OHS) Program Information Report (PIR) data as a proxy measure for EHS children with dental caries. The PIR data contains survey results collected from all HS and EHS grantees across the nation. While HS sites are required to report the number of children who needed dental treatment at the end of the enrollment year, EHS sites are not required by OHS to report child who needed dental treatment. Even though the EIB Project requested dental needs data from individual EHS sites, it was not included in this Project analysis due to lack of validity and reliability of the data. EIB Partners tracked the HS “needed dental treatment” data from PIR, however, there was no PIR data to **document the proportion of WI-HS children** who had been **exposed to EIB POHET** during their **EHS enrollment**, or whether they matriculated into WI HS. Therefore, a **reduction in “needed dental treatment” rates** as proposed in **EIB Objective 4 does not correlate** with any **reliable rates** for **“needed dental treatment” among WI HS children**. Observations of comparison trends for “needed dental treatment” over the past five years (shown in **Figure 22**) suggest that additional interventions are needed to improve oral health among young HS children in Wisconsin.

**Figure 22. Comparison Trends for WI Head Start Children Who Needed Dental Treatments between EIB Research to Non-Research Sites, 2011-2016**



HS Children Who Needed Dental Treatment	2011	2012	2013	2014	2015	2016
National vs WI ALL HS	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001
National vs EIB Research Site	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001
National vs Non Research Sites	≤0.001	≤0.001	0.012	≤0.001	≤0.001	≤0.001
WI ALL HS vs EIB Research Sites	≤0.001	≤0.001	0.65	≤0.001	≤0.001	≤0.001
WI ALL HS vs Non Research Sites	0.55	0.12	0.004	≤0.001	0.999	≤0.001
EIB Research Site vs Non Research Sites	0.59	0.013	0.006	≤0.001	0.017	0.049
<b>P-values 2011 vs 2016</b>						
National	≤0.001					
WI All	0.001					
EIB Research Sites	0.014					
Non Research Sites	0.937					

**Legend:** As graphed in Figure 22, trends in oral health status for WI Head Start children (purple) “needed dental treatment” show an increase from 25% at baseline to 28% in 2013-2014, after initiation of the EIB intervention. PIR data also shows that WI HS Sites connected to EIB Research Sites demonstrated a statistically significant increase (from 24% to 32%) in the proportion of children who “needed dental treatments” in 2013-2014, following the initiation of EIB ( $p \leq 0.001$ ). Due to the lack of data to document the proportion of WI EHS children matriculating into WI ALL HS, a reduction in “needed dental treatment” rates as proposed in EIB Objective #4, could not be correlated with a reliable rate among WI HS children.

Over the past five years (2011 to 2016), there was a statistically significant decrease in the proportion of HS children reported “needed dental treatments” nationally (21% to 18%,  $p \leq 0.001$ ) and statewide (25% to 23%,  $p = 0.001$ ). There was no change in the 2011 (25%) and 2016 (25%) proportion of HS children needed dental treatments at WI HS sites connected to Non-Research Sites ( $p = 0.937$ ). During the same timeframe (from 2011-2016), there was a statistically significant increase in the proportion of HS children who needed dental treatments at WI HS sites connected to EIB Research Sites (26% to 28%,  $p = 0.014$ ). This increase could result from greater awareness of dental caries by Home Visitors/ Parent Educators and Parents/Caregivers throughout the WI HS and EHS Programs. EIB Partners documented the HS “needed dental treatment” data from PIR, but there was no data to document the proportion of HS children who had been exposed to EIB POHET during their EHS enrollment and whether they matriculated into HS. In addition, given greater emphasis on compliance with oral health indicators in the HS performance standards, continual efforts to address oral health needs are indicated.

**Data Source:** OHS PIR – EHS Data

## COMMUNITY & PARTNERS ORAL HEALTH ENGAGEMENT

EIB offers multiple opportunities for engagement of the target population. Parents/caregivers and home visitors/parent educators involvement included opportunities to provide opinions and suggestions on educational materials and messages by participating in an EIB advisory or focus group. Parents'/caregivers' and home visitors'/parent educators' opinions also were obtained during training sessions at the Wisconsin Head Start Association annual meeting.

The EIB Partners participated in a number of local, state and national committees that enhanced the Project through access to current oral health research and sharing of effective and innovative oral health programs.

**Table 7. EIB Partners' Engagement in Oral Health Initiatives Impacting the EHS Population**

ORGANIZATION	INDIVIDUAL PARTNER(S)	ROLES RELATED TO PREGNANT WOMEN AND CHILDREN'S ORAL HEALTH
<p><b>Medical College of Wisconsin</b></p> <p><a href="http://www.mcw.edu/Center-Advancement-Underserved-Children.htm">www.mcw.edu/Center-Advancement-Underserved-Children.htm</a></p>	<p><b><i>Earnestine Willis, MD, MPH</i></b> Kellner Professor of Pediatrics EIB Principal Investigator</p> <p><b><i>Pippa Simpson, PhD</i></b> Statistician</p> <p><b><i>Melodee Nugent</i></b> Biostatistician</p>	<ul style="list-style-type: none"> <li>• Board of Directors of several Head Start/Early Head Start Programs in Southeastern Wisconsin (Racine and Milwaukee Counties)</li> <li>• Acelero Learning Head Start Governance Advisory Committee</li> </ul>
<p><b>Wisconsin Department of Health Services Oral Health Program</b></p> <p><a href="http://www.dhs.wisconsin.gov/oral-health/index.htm">www.dhs.wisconsin.gov/oral-health/index.htm</a></p>	<p><b><i>Mark Moss, DDS, PhD</i></b> State Dental Director</p>	<ul style="list-style-type: none"> <li>• Wisconsin Health Start Oral Health Survey</li> <li>• Healthy Smiles for Mom and Baby Advisory Board</li> <li>• ASTDD, Perinatal Oral Health Committee</li> </ul>
<p><b>Wisconsin Dental Association</b></p> <p><a href="http://www.wda.org">www.wda.org</a></p>	<p><b><i>Erika Valadez</i></b> Dental Practice and Government Relations Associate</p>	<ul style="list-style-type: none"> <li>• Healthy Smiles for Mom and Baby Advisory Board</li> <li>• Give Kids A Smile®</li> <li>• WDA and WDA Foundation Mission of Mercy</li> <li>• WDA Dental Home</li> <li>• Own Your Smile oral health literacy, public awareness campaign</li> <li>• Baby Teeth Matter oral health literacy, public awareness campaign</li> <li>• National Children's Dental Health Month</li> </ul>
<p><b>Children's Health Alliance of Wisconsin</b></p> <p><a href="http://www.chawisconsin.org">www.chawisconsin.org</a></p>	<p><b><i>Diane Flanagan, RDH</i></b> Senior Project Manager EIB Project Manager</p>	<ul style="list-style-type: none"> <li>• National Center on Early Childhood Health and Wellness, Wisconsin and Region V Dental Hygienist Liaison</li> <li>• ASTDD Early Childhood</li> </ul>

ORGANIZATION	INDIVIDUAL PARTNER(S)	ROLES RELATED TO PREGNANT WOMEN AND CHILDREN'S ORAL HEALTH
	<p><b>Matt Crespin, RDH, MPH</b> Associate Director, Alliance</p> <p><b>Karen Ordinans</b> Executive Director, Alliance</p>	<p>Committee and Home Visitation Sub-committee</p> <ul style="list-style-type: none"> <li>• Head Start Health Advisory Committees (Milwaukee)</li> <li>• Healthy Smiles for Mom and Baby</li> </ul>
<p><b>Wisconsin Head Start Association</b></p> <p><a href="http://www.whsaonline.org">www.whsaonline.org</a></p>	<p><b>Barb Tengesdal, PhD</b> Executive Director Wisconsin Head Start Association</p>	<ul style="list-style-type: none"> <li>• Fond du Lac Community Birth to Five Council – SPROUTS</li> </ul>
<p><b>Dental Consultant</b></p>	<p><b>Christopher Okunseri, BDS, MSc, MLS, DDPHRCSE, FFDRCSI</b> Director, Marquette University Predoctoral Program in Dental Public Health</p>	<ul style="list-style-type: none"> <li>• American Board of Dental Public Health</li> </ul>

Involvement of the EIB Project Manager in local Head Start health advisory committees and participation of the principle investigator in two southeastern area Head Start boards of directors, provided opportunities for community engagement on the Project's content, training, and dissemination of EIB progress and research results. Additionally, the project manager was recruited to serve as Wisconsin's and Region V Dental Hygienist Liaison (DHL) to the American Academy of Pediatrics Head Start National Center on Early Childhood Health and Wellness.

### **Dissemination**

Dissemination of EIB progress included articles in the Wisconsin Dental Association Journal in the October 2012, July 2013, February 2015; April 2017 (scheduled) editions. Articles were published in the Journal of Public Health Dentistry, January 2016 and JADA, August 2016. The Alliance, DHS and WDA produced an oral health fact sheet for the Comprehensive and Aligned System for Early Childhood Screening and Assessment: Wisconsin's Blueprint. An editorial on Dental Care During Pregnancy appeared in Access, March 2014 and the MCW and CHW publication The Child First and Always, October 2016.

1. Evaluation of an oral health education session for Early Head Start home visitors, Kevin Glatt, BA, et. al., Journal of Public Health Dentistry, January 2016.  
<http://onlinelibrary.wiley.com/doi/10.1111/jphd.12140/full>
2. The ethics of dental treatment during pregnancy (Ethical Moment feature), Thomas Raimann, DDS., JADA, August 2016. pg. 688-689  
[http://jada.ada.org/article/S0002-8177\(16\)30337-3/fulltext](http://jada.ada.org/article/S0002-8177(16)30337-3/fulltext)
3. Comprehensive and Aligned System for Early Childhood Screening and Assessment: Wisconsin's Blueprint, Third Edition 2016, pages 27-32 <http://www.collaboratingpartners.com/curriculum-assessment-child-assessment.php>

EIB progress was presented at the following conferences:

1. Wisconsin Oral Health Coalition Conference, September 2014, 2016.
2. National Oral Health Conference, April 2012, 2013, 2014, 2016
3. Wisconsin Head Start Association Conference, February 2013, 2014, 2015, 2016

### **Leveraging**

In 2015, the Alliance applied for and received a Health Resources and Services Administration (HRSA) 4-year grant to implement the Healthy Smiles for Mom and Baby (HSMB) project. HSMB proposes to institute a statewide integrated oral health program in Wisconsin to reduce the prevalence of oral disease in pregnant women and infants most at risk by improving access to quality oral health care.

HSMB will build on the significant accomplishments of EIB by expanding the reach of oral health training to additional home visitation programs, current and future medical/dental providers and health departments throughout Wisconsin.

### **Sustainability**

Early Head Start staff turnover, which can be as high as 30% in some agencies, presented a variety of challenges in the implementation and evaluation of the EIB project. An ongoing oral health training of home visitors/health educators and other professionals is currently in development. The training program will be implemented via a technology platform to allow participants access to training modules that can be completed online. The development of the web-based training is a combined project of EIB and HSMB and will be available by August 2017.

### **Conclusion**

The EIB partners recognize the need for institutionalization of the EIB oral health training by improving accessibility through the development of a technology-based platform for all early childhood education providers. Greater clarity of national HS performance standards emphasizing compliance with oral health indicators suggests that continual efforts to address oral health are critical over a longer period of time.

## REFERENCES & RESOURCES

### **Acronyms and Abbreviations**

AIAN	American Indian and Alaskan Native
Alliance	Children’s Health Alliance of Wisconsin
ASTDD	Association of State and Territorial Dental Directors
CAP	Community Action Program
CESA	Cooperative Educational Service Agencies
DHS	Wisconsin Department of Health Services
EHS	Early Head Start
EIB	Earlier Is Better
GED	General Educational Development
HRSA	Health Resources and Services Administration
HS	Head Start
HSMB	Healthy Smiles for Mom and Baby
HV/PE	Home visitors/parent educators
IRB	Institutional Review Board
MCW	Medical College of Wisconsin
MI	Motivational Interviewing
MSHS	Migrant and Seasonal Head Start
OHS	Office of Head Start
PIR	Program Information Report
POHET	Parent Oral Health Education Toolkit
SPSS	IBM statistical analysis software
WDA	Wisconsin Dental Association
WHSA	Wisconsin Head Start Association
WI	Wisconsin

### **Publications**

1. Evaluation of an oral health education session for Early Head Start home visitors, Kevin Glatt, BA, et. al., Journal of Public Health Dentistry, January 2016.  
<http://onlinelibrary.wiley.com/doi/10.1111/jphd.12140/full>
2. The ethics of dental treatment during pregnancy (Ethical Moment feature), Thomas Raimann, DDS., JADA, August 2016. pg. 688-689  
[http://jada.ada.org/article/S0002-8177\(16\)30337-3/fulltext](http://jada.ada.org/article/S0002-8177(16)30337-3/fulltext)

## **Citations/References**

1. Head Start Performance Standards – <https://eclkc.ohs.acf.hhs.gov/policy/pi/acf-pi-hs-16-04>
2. Head Start Program Information Report (PIR) – 2010-2016 – State Level w/ AIAN and MSHS – Wisconsin – Early Head Start. <https://eclkc.ohs.acf.hhs.gov/hslc/data/pir>
3. Wisconsin Department of Health Services, Division of Public Health, Oral Health Program. 2009 Healthy Smiles for a Healthy Head Start: The Oral Health of Wisconsin's Head Start Children. <https://www.dhs.wisconsin.gov/oral-health/reports.htm>
4. The frequency/duration requirements are from the Head Start Performance Standards and Other Regulations [45 CFR 1306.33].
5. Medical College of Wisconsin – Advancing a Healthier Wisconsin Endowment – Healthier Wisconsin Partnership Program – <http://www.mcw.edu/Advancing-Healthier-WI-Endowment/Apply-for-Funding/HWPP.htm>

## **Home Visitors/Parent Educators Educational Materials**

1. *Oral Health Tips for Health Managers*  
<http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/health/Health/Health%20Manager%20Resources/Health%20Manager%20Resources%20Program%20Staff/oral-health-staff-tips.pdf>
2. ***Oral Health Care During Pregnancy – A National Consensus Statement***  
[http://www.mchoralhealth.org/materials/consensus\\_statement.html](http://www.mchoralhealth.org/materials/consensus_statement.html)
3. ***Brush Up on Oral Health*** –National Center on Early Childhood Health and Wellness, monthly newsletter  
<https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/health/oral-health/policies-procedures/buoh.html>

## **Parents/Caregivers Educational Materials**

1. ***Oral Health Tips for Families***  
<http://eclkc.ohs.acf.hhs.gov/hslc/tta-system/health/Health/Health%20Manager%20Resources/Health%20Manager%20Resources%20Families/oral-health-family-tips.pdf>
2. ***Two Healthy Smiles*** – oral health for pregnant women  
***A Healthy Smile for Your Baby*** – oral health for families with babies  
***A Health Smile for Your Child*** – oral health for families with young children  
Brochures produced by the National Maternal and Child Health – Oral Health Resource Center  
<http://www.mchoralhealth.org/Topics/hs.html>
3. ***Text4Baby*** –health text messages for pregnant and post-partum women promotional materials  
<http://graphtech.myprintdesk.net/DSF/storefront.aspx?6xni2of2cf3qEW9M0h2GLtXhngEGcGvIkJsdghD0nPLANM4rjAuffhcSGdRZf+ih>
4. ***Healthy Teeth for Happy Smiles*** – oral health tips for parents and caregivers  
English (publication 44078) <http://www.dhs.wisconsin.gov/publications/P4/P44078.pdf>  
Spanish (publication 44078S) <http://www.dhs.wisconsin.gov/publications/P4/P44078S.pdf>  
Ordering information <http://www.dhs.wisconsin.gov/wic/forms.htm>

5. ***A Healthy Mouth for Your Baby***- oral health booklet for families with babies  
<http://www.nidcr.nih.gov/OralHealth/>

### **Parent Oral Health Education Toolkit**

1. Oral health reminders to stay cavity free, family goal setting magnets – Ramos-Gomez FJ et al. Caries risk assessment appropriate for the age 1 visit (infants and toddlers.) J Calif Dental Assoc. 2007:35:687-702
2. Oral Health Red Flags Checklist – Kids Get Care (KGC) oral health program, King County, Washington -  
<http://www.kingcounty.gov/healthservices/health/child/kgc/about.aspx>
3. Motivational interviewing and oral health education
  - a. American Dental Hygienists' Association  
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  - b. CAMBRA (page 687)  
[http://www.cda.org/Portals/0/journal/journal\\_102007.pdf](http://www.cda.org/Portals/0/journal/journal_102007.pdf)
  - c. *Learning Motivational Interviewing* by Scott Caldwell  
[https://www.dhs.wisconsin.gov/sites/default/files/legacy/MH\\_BCMH/docs/confandtraining/2011/2-17-11learn.pdf](https://www.dhs.wisconsin.gov/sites/default/files/legacy/MH_BCMH/docs/confandtraining/2011/2-17-11learn.pdf)
  - d. *Motivational Interviewing In Healthcare* – book by Stephen Rollnick and William R. Miller
  - e. Tooth Talk – *Motivational Interviewing Techniques* and *Motivational Interviewing for Kids' Healthy Smiles* training videos  
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### **Evaluation Tools**

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2. Oral Health Education Training HV/PE Pre, Post, Post-Post training questionnaire – Final Report, Targeted State MCH Oral Health Service Systems Grant, Maine CDC Oral Health Program, Maine Department of Health & Human Services, Grant #H47MC0865  
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### **Focus Groups**

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2. *Journal of the American Dietetic Association*, 2003, June; 103(6): 721-8.
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5. Garwick AW, Seppelt A, Riesgraf M, Addressing asthma management challenges in a multisite, urban Head Start program. *Public Health Nurse*. 2010, Jul-Aug;27(4): 329-36.
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### **Illustration, Photography and Graphic Design Services**

1. Educational materials – Stephanie E. Sanchez, SEM PHOTOGRAPHY, Milwaukee, Wisconsin
2. Education materials – Tara Goris, Children’s Health Alliance of Wisconsin, West Allis, Wisconsin
3. Magnet illustrations – Jessica Nieczyperowicz, Cudahy, Wisconsin

### **Translation Services**

1. Consent forms – Cyacom, Tucson, Arizona
2. Educational materials – Children’s Hospital of Wisconsin Translation Services, Milwaukee, Wisconsin
3. Educational materials – SWITS, Ltd., Delavan, Wisconsin

**Earlier Is Better Oral Health Education Training  
Pre-training Questionnaire for Parent Educators/Home Visitors**

**Section A**

<b>How often do you discuss these things with Early Head Start parents/caregivers?</b>	<b>Never</b>	<b>Rarely</b>	<b>Sometimes</b>	<b>Often</b>	<b>Always</b>
1. Oral health for children 0 to 3.	<input type="radio"/>				
2. Cleaning infant/children's teeth.	<input type="radio"/>				
3. Giving a baby a bottle when the baby is in a bed/crib, or when the baby might be lying down or falling asleep.	<input type="radio"/>				
4. Cleaning the gums of infants.	<input type="radio"/>				
5. The age at which a child should begin to see a dentist.	<input type="radio"/>				
6. Drinking fluoridated water through the public water supply.	<input type="radio"/>				

**Section B**

<b>How often do you discuss these things with Early Head Start pregnant women?</b>	<b>Never</b>	<b>Rarely</b>	<b>Sometimes</b>	<b>Often</b>	<b>Always</b>
1. Oral health for pregnant women.	<input type="radio"/>				
2. Seeing a dentist while pregnant.	<input type="radio"/>				

**Section C**

<b>If a parent expresses a concern about their child's teeth, how often do you do any of the following?</b>	<b>Never or almost never</b>	<b>Occasionally</b>	<b>Always or almost always</b>	<b>Parent has never expressed concern</b>
1. Oral health for children 0 to 3.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Cleaning infant/children's teeth.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Giving a baby a bottle when the baby is in a bed/crib, or when the baby might be lying down or falling asleep.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Cleaning the gums of infants.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. The age at which a child should begin to see a dentist.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Drinking fluoridated water through the public water supply.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Section D**

How confident are you that you can do any of the following?	Not at all confident	Not very confident	Somewhat confident	Very confident	Completely confident
1. Recognize early childhood tooth decay.	<input type="radio"/>				
2. Evaluate a child's risk of having tooth decay in the future.	<input type="radio"/>				
3. Advise parents/caregivers about their child's oral hygiene.	<input type="radio"/>				
4. Advise parents/caregivers about dental visits for their child.	<input type="radio"/>				
5. Advise parents/caregivers about the use of fluoride toothpaste.	<input type="radio"/>				
6. Make a dental referral for a child or infant.	<input type="radio"/>				
7. Advise a pregnant woman about her oral health.	<input type="radio"/>				
8. Make a dental referral for a pregnant woman.	<input type="radio"/>				

**Section E**

**Please mark the circle indicating whether the statement is true or false.**

1. Primary (baby) tooth development begins during the final trimester.	<input type="radio"/> True <input type="radio"/> False
2. Dental caries (decay) is a bacterial infection.	<input type="radio"/> True <input type="radio"/> False
3. It is okay to clean a pacifier by placing it in the caregiver's mouth before placing it in the child's mouth.	<input type="radio"/> True <input type="radio"/> False
4. It is okay to help a baby fall asleep using a bottle of milk, formula or juice.	<input type="radio"/> True <input type="radio"/> False
5. Children do not need a dental exam until their permanent teeth come in.	<input type="radio"/> True <input type="radio"/> False
6. A smear of toothpaste with fluoride can be used on a child under age 2 who is a high risk for tooth decay.	<input type="radio"/> True <input type="radio"/> False
7. Starting at birth, parents/caregivers should wipe the gums of a baby with a soft cloth.	<input type="radio"/> True <input type="radio"/> False
8. Community water fluoridation is the most effective method of reducing tooth decay.	<input type="radio"/> True <input type="radio"/> False
9. The severity and progression of oral diseases may be faster in children with special health care needs.	<input type="radio"/> True <input type="radio"/> False
10. Pregnant women should wait until after they give birth to see a dentist.	<input type="radio"/> True <input type="radio"/> False
11. Putting a child to bed with a sippy cup of milk, formula or juice will not harm their teeth.	<input type="radio"/> True <input type="radio"/> False
12. By two years of age, a child should be brushing his or her teeth unassisted.	<input type="radio"/> True <input type="radio"/> False

13. Decay is not important in young children because their baby teeth will fall out soon.	<input type="radio"/> True
	<input type="radio"/> False
14. An adult needs to help a child brush their teeth until about the age of 8.	<input type="radio"/> True
	<input type="radio"/> False

**Yes**                      **No**

**Have you ever received training in infant/child oral health?**                                           

**If “Yes”, when was your most recent training? Please mark circle below.**

- Within the last 12 months.
- 1-3 years ago.
- More than 3 years ago.

**Yes**                      **No**

**Have you ever received training in maternal oral health?**                                           

**If “Yes”, when was your most recent training? Please mark circle below.**

- Within the last 12 months.
- 1-3 years ago.
- More than 3 years ago.

**Reference**

**Final Report, Targeted State MCH Oral Health Service Systems Grant**

Maine CDC Oral Health Program, Maine Department of Health & Human Services

Grant #H47MC0865 <http://mchlibrary.info/MCHBfinalreports/docs/H47MC08655.pdf>

## ATTACHMENT 2

EHS Site: \_\_\_\_\_

PE/HV ID: \_\_\_\_\_

Training date: \_\_\_\_\_

**Earlier Is Better Oral Health Education Training**  
**Post-training Questionnaire for Parent Educators/Home Visitors**

**Section A**

Please provide your opinion on the following:	Strongly agree	Agree	Disagree	Strongly disagree	No opinion
1. I know how to access resources that can be used to promote oral health for children and pregnant women.	<input type="radio"/>				
2. I understand how to assist family's with identifying oral health barriers and goal setting.	<input type="radio"/>				
3. I have acquired knowledge, skills and tools I can use in my work as a result of this training.	<input type="radio"/>				
4. The trainer was effective in conveying oral health information.	<input type="radio"/>				
5. The training utilizes educational materials and methods to provide oral health information clearly and effectively.	<input type="radio"/>				

The length of the training was (please circle response)      too long      too short      just right

**Section B**

As a result of this training, how confident are you that you can...	Not at all confident	Not very confident	Somewhat confident	Very confident	Completely confident
1. Recognize early childhood tooth decay.	<input type="radio"/>				
2. Evaluate a child's risk of having tooth decay in the future.	<input type="radio"/>				
3. Advise parents/caregivers about their child's oral hygiene.	<input type="radio"/>				
4. Advise parents/caregivers about dental visits for their child.	<input type="radio"/>				
5. Advise parents/caregivers about the use of fluoride toothpaste.	<input type="radio"/>				
6. Make a dental referral for a child or infant.	<input type="radio"/>				
7. Advise a pregnant woman about her oral health.	<input type="radio"/>				
8. Make a dental referral for a pregnant woman.	<input type="radio"/>				

**Section C**

As a result of this training, in the future how likely will you be to...	Very unlikely	Unlikely	Somewhat unlikely	Somewhat likely	Likely
1. Discuss oral health on a regular basis with my Early Head Start families.	<input type="radio"/>				
2. Encourage Early Head Start families to discuss oral health with their medical provider.	<input type="radio"/>				
3. Help Early Head Start families connect with a dentist in the area.	<input type="radio"/>				

**Section D**

**Please mark the circle indicating whether the statement is true or false.**

1. Primary (baby) tooth development begins during the final trimester.	<input type="radio"/>	True
	<input type="radio"/>	False
2. Dental caries (decay) is a bacterial infection.	<input type="radio"/>	True
	<input type="radio"/>	False
3. It is okay to clean a pacifier by placing it in the caregiver's mouth before placing it in the child's mouth.	<input type="radio"/>	True
	<input type="radio"/>	False
4. It is okay to help a baby fall asleep using a bottle of milk, formula or juice.	<input type="radio"/>	True
	<input type="radio"/>	False
5. Children do not need a dental exam until their permanent teeth come in.	<input type="radio"/>	True
	<input type="radio"/>	False
6. A smear of toothpaste with fluoride can be used on a child under age 2 who is a high risk for tooth decay.	<input type="radio"/>	True
	<input type="radio"/>	False
7. Starting at birth, parents/caregivers should wipe the gums of a baby with a soft cloth.	<input type="radio"/>	True
	<input type="radio"/>	False
8. Community water fluoridation is the most effective method of reducing tooth decay.	<input type="radio"/>	True
	<input type="radio"/>	False
9. The severity and progression of oral diseases may be faster in children with special health care needs.	<input type="radio"/>	True
	<input type="radio"/>	False
10. Pregnant women should wait until after they give birth to see a dentist.	<input type="radio"/>	True
	<input type="radio"/>	False
11. Putting a child to bed with a sippy cup of milk, formula or juice will not harm their teeth.	<input type="radio"/>	True
	<input type="radio"/>	False
12. By two years of age, a child should be brushing his or her teeth unassisted.	<input type="radio"/>	True
	<input type="radio"/>	False
13. Decay is not important in young children because their baby teeth will fall out soon.	<input type="radio"/>	True
	<input type="radio"/>	False
14. An adult needs to help a child brush their teeth until about the age of 8.	<input type="radio"/>	True
	<input type="radio"/>	False

**Reference**

**Final Report, Targeted State MCH Oral Health Service Systems Grant**

Maine CDC Oral Health Program, Maine Department of Health & Human Services  
 Grant #H47MC0865 <http://mchlibrary.info/MCHBfinalreports/docs/H47MC08655.pdf>

# ATTACHMENT 3

## Earlier Is Better Oral Health Education Training Online Survey Post/Post Training

### Current position with Early Head Start

- Home Visitor/Parent Educator
- Other (please list) \_\_\_\_\_

### Which of the following Early Head Start Programs do you work for:

- CAP Services, Inc.
- CESA 11
- CESA 7
- Dane County Parent Council, Inc.
- Family Forum
- Guadalupe Early Head Start
- Kenosha Achievement Center, Inc.
- National Centers for Learning Excellence, Inc.
- Next Door Foundation
- Oneida Early Head Start
- Red Cliff Early Head Start Program
- Rock/Walworth Comprehensive Family Services, Inc.
- Southwestern Wisconsin Community Action Program
- Wood County Head Start, Inc.
- Other (please list) \_\_\_\_\_

### Please mark the circle indicating when you participated in your most recent Earlier Is Better oral health training.

- Less than 12 months
- 12 – 23 months
- 24 – 35 months
- 36 – 48 months
- More than 48 months

### Section A

How often do you discuss these things with Early Head Start parents/caregivers?	Never	Rarely	Sometimes	Often	Always
1. Oral health for children 0 to 3 years.	<input type="radio"/>				
2. Cleaning infant/children's teeth.	<input type="radio"/>				
3. Giving a baby a bottle when the baby is in a bed/crib, or when the baby might be lying down or falling asleep.	<input type="radio"/>				
4. Cleaning the gums of infants.	<input type="radio"/>				
5. The age at which a child should begin to see a dentist.	<input type="radio"/>				
6. Drinking fluoridated water through the public water supply.	<input type="radio"/>				

**Section B**

How often do you discuss these things with Early Head Start pregnant women?	Never	Rarely	Sometimes	Often	Always
1. Oral health for pregnant women.	<input type="radio"/>				
2. Seeing a dentist while pregnant.	<input type="radio"/>				

**Section C**

If a parent expresses a concern about their child's teeth, how often do you do any of the following?	Never	Rarely	Occasionally	Always or almost always	Parent has never expressed concern
1. Oral health for children 0 to 3.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Cleaning infant/children's teeth.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Giving a baby a bottle when the baby is in a bed/crib, or when the baby might be lying down or falling asleep.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Cleaning the gums of infants.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. The age at which a child should begin to see a dentist.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Drinking fluoridated water through the public water supply.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Section D**

**Please mark the circle indicating whether the statement is true or false.**

1. Primary (baby) tooth development begins during the final trimester.	<input type="radio"/> True <input type="radio"/> False
2. Dental caries (decay) is a bacterial infection.	<input type="radio"/> True <input type="radio"/> False
3. It is okay to clean a pacifier by placing it in the caregiver's mouth before placing it in the child's mouth.	<input type="radio"/> True <input type="radio"/> False
4. It is okay to help a baby fall asleep using a bottle of milk, formula or juice.	<input type="radio"/> True <input type="radio"/> False
5. Children do not need a dental exam until their permanent teeth come in.	<input type="radio"/> True <input type="radio"/> False
6. A smear of toothpaste with fluoride can be used on a child under age 2 who is a high risk for tooth decay.	<input type="radio"/> True <input type="radio"/> False
7. Starting at birth, parents/caregivers should wipe the gums of a baby with a soft cloth.	<input type="radio"/> True <input type="radio"/> False
8. Community water fluoridation is the most effective method of reducing tooth decay.	<input type="radio"/> True <input type="radio"/> False
9. The severity and progression of oral diseases may be faster in children with special health care needs.	<input type="radio"/> True <input type="radio"/> False
10. Pregnant women should wait until after they give birth to see a dentist.	<input type="radio"/> True <input type="radio"/> False

11. Putting a child to bed with a sippy cup of milk, formula or juice will not harm their teeth.	<input type="radio"/> True <input type="radio"/> False
12. By two years of age, a child should be brushing his or her teeth unassisted.	<input type="radio"/> True <input type="radio"/> False
13. Decay is not important in young children because their baby teeth will fall out soon.	<input type="radio"/> True <input type="radio"/> False
14. An adult needs to help a child brush their teeth until about the age of 8.	<input type="radio"/> True <input type="radio"/> False

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**Section E**

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**Which of the following toolkit materials do you find useful in providing oral health education to families.**

- Flip chart
- Stuffed animal to demonstrate tooth brushing
- Goal setting magnet
- Red Flag Checklist
- Laminated decay pictures – Oral Health Screening Guide
- Oral health activities for children
- Toothbrush and toothpaste
- Carrying bag for toolkit supplies
- Other (please list) \_\_\_\_\_

**What do you like most about the Earlier Is Better Program?**

**How could the Earlier Is Better Program be improved?**

**What additional oral health content should be included in the training?**

**How often should oral health training occur?**

- 6 month review
- Yearly review
- 2 year review
- Other \_\_\_\_\_

**Oral health trainings should be available:**

- In person
- On line
- Other (please list) \_\_\_\_\_

**Reference**

**Final Report, Targeted State MCH Oral Health Service Systems Grant**

Maine CDC Oral Health Program, Maine Department of Health & Human Services

Grant #H47MC0865 <http://mchlibrary.info/MCHBfinalreports/docs/H47MC08655.pdf>

## ATTACHMENT 4

### Focus Groups Results

Table 8. Earlier Is Better Year 1 Focus Group Top Themes: Home Visitors (n=8)

Question	Theme/Code	Total Tally	Key Quotes
<b>Barriers</b>	Accessibility (transportation, missed appointment, limited clinics)	6	And sometimes the appointment is just for them to fill out paperwork and come back another day for the actual appointment and some of them have no transportation and they call them, they try to get medical transportation but there's so many changes that sometimes they just give up as well.
	Lack of information	4	Also I think that the lack of information that is provided to pregnant moms, because sometimes they think if I go to a dentist it's going to be bad for my baby, and it's the other way around. It's educating them on how it's going to benefit her and the baby.
<b>Effective Methods/Materials for Behavior Change</b>	Discussions (family, group, individual)	12	Professional speakers I think after the appointment just reinforcing on how good they look now when they clean their teeth or whatever.
	Handouts/Visuals	7	With the parents, the visual would probably be the most effective ones. I think the visual; they're actually showing how it affects and how they could benefit.
	Resources (dental clinics, toothbrushes, etc.)	4	The list of local clinics, they can have it in front of them I think that maybe with the starter kit the little magnet type thing that has the six month dates so they can write down their next six month appointment so they won't forget it.
<b>Effective Methods/Materials for Education</b>	Handouts/Visuals	7	My families like having an actual visual picture of good teeth and bad teeth.
	Discussions (family, group, individual)	7	Well, probably, maybe even including them with, I mean, if they're not parents yet obviously if it's their first child, including them with the group discussions they have with the ones that are already parents, that way they can see what the concerns that they have as parents and they can kind of look forward to that when they have their child
	Resources (dental clinics, toothbrushes, etc.)	5	Like a little starter kit with a toothbrush and a mouth mirror and dental floss
	Language use (simple, brief, Native)	4	Something that is written in their own language
	Games/Activities	4	Maybe some activity pages to involve the children

**Table 9. Earlier Is Better Year 1 Focus Group Top Themes: Parents/Caregivers (n=8)**

Question	Codes	Total Tally	Key Quotes
<p><b>Effective Methods/Materials for Education</b></p>	Handouts/Visuals	6	<p>Visual aids. Like of what calcium....supposedly when you are pregnant you have to drink a lot of calcium and most pregnant women don't know what it is for...so maybe showing them visually, would help them understand it too.</p>
	Discussions (family, group, individual)	6	<p>When I was pregnant I was in this little meeting group with a prenatal care nurse at human services and that was a good time to talk about issues, so I guess a nurse or class.</p>
	Demonstrations (Parents, Provider, Home Visitor, Guest Speakers)	4	<p>What I've noticed with my kids is that, that my mom was a dental assistant, and we grew up watching her brush and floss for 20 minutes in the bathroom so we grew up with that. And now I have children, I remember with her having her in my arm and brushing my teeth and now that she her brother and sees it as a routine.</p> <p>I was shown with a doll how to take care of teeth and that helped me because I didn't know how to do it with my first child.</p>
<p><b>Effective Methods/Materials for Behavior Change</b></p>	Resources (dental clinics, toothbrushes, etc.)	4	<p>Locations of the dentist that we could afford, you have to drive like an hour sometimes, maybe 45 minutes and that's a lot of gas if you don't have money.</p>
	Handouts/Visuals	3	<p>Visuals. I don't think people realize that children's teeth can get that bad. I think somebody realizes that people get older and over time that what happens to your teeth and I don't think people realize a 2 year old can have a mouth full of decay. So, that is more of a wakeup call when it's an actual child. I mean everyone knows that can happen, but I don't think they think it can happen to children that young or that bad.</p>

**Table 10. Earlier Is Better Year 2 Focus Group Top Themes: Home Visitors (n=8)**

Question	Codes	Total Tally	Key Quotes
<b>POHET Materials</b>	Ease of use/helpful tools	4	I like this, great job, I like this (flip charts)
	Confusion over how to use tools	3	When we were trained, we were given a book and we all learned differently and all took it differentially and are all doing it differently.
<b>Consenting</b>	Enjoy being in research	2	They like being a part of contributing to oral health. All of mine have consented.
<b>Steps to Improve</b>	Information	2	Educating parents more than getting your kid in, not just the parents. The parents are on board but a lot of dentists are not on board and do not want to see their kids until they are 2. (years of age)
<b>EHS Involvement</b>	Provide information/importance/demonstration	3	Taking a visit to the hygienist to see her with her funny glasses, the mask and all that so next year when they go in they'll be familiar with that.
	Routines (embed in EHS events)	2	Do more health activities focusing on dental.
<b>Key Players</b>	WDA and insurance companies, dentists	2	Dentists, not just medical assistance, but all of them.
	Schools/Churches	2	There's a bunch of other kids and just because they're not in poverty doesn't mean they are all brushing their teeth.

**Table 11. Earlier Is Better Year 2 Focus Group Top Themes: Parents/Caregivers (n=7)**

Question	Codes	Total Tally	Key Quotes
<b>POHET Materials</b>	Demonstration- helpful when used and needed in some areas where there is only discussion/Modeling (Home Visitor to Parent and Parent to Child)	6	<p>She gave it to her but she doesn't show how it supposed to be used.</p> <p>She has brought like twenty of like oral hygiene products for the kids, different types of toothbrushes for the babies, but like what was said earlier, there was no demonstration on how to use those items, I guess they just expect that you being the parent should show your kids how to do it.</p>
	Magnet is helpful--viewed as a tool for children	4	"I personally think we, as parents, already do this. So I think this would be more beneficially as , more geared towards children"
<b>Consenting</b>	Simple/Easy	8	It was pretty simple.
<b>Barriers</b>	Accessibility (transportation, missed appointment, limited clinics)	6	...finding a dentist willing to provide oral care to pregnant women, I mean you can usually find someone that will clean your teeth, but anything that needs to be done, they are kind of hands off until after you have the baby.
<b>Steps to Improve</b>	More dentists taking state insurance	2	
	Information	2	Maybe more education on the dentist part, in terms of what is safe during pregnancy for oral hygiene, you know what is acceptable in terms of local anesthesia
<b>EHS Involvement</b>	Routines (embed in EHS events)	5	...after every snack, the kids line up to get their toothbrushes and then go to the bathroom.
	Provide information/importance/demonstration	4	I don't think there is much else they can do besides providing us with information that we need while we are pregnant
<b>Key Players</b>	Schools/Churches	3	If the schools know about it, that can help parents that don't know where to get that kind of information.

## ATTACHMENT 5

### Frequently Asked Questions

**Table 12. Earlier Is Better Frequently Asked Questions**

#### **Earlier Is Better**

**QUESTION: What is Earlier Is Better (EIB)?**

**ANSWER:** EIB is a parent oral health education program for pregnant women and families with children under the age of 3 enrolled in Wisconsin Early Head Start (WI EHS). Parent educators/home visitors are trained by EIB staff to use the Parent Oral Health Education Toolkit (POHET) to support WI EHS families with knowledge that informs and guides oral health decision making.

**QUESTION: Who funds the EIB oral health program for Early Head Start?**

**ANSWER:** EIB is funded by a five year grant from the Healthier Wisconsin Partnership Program, a component of the Advancing a Healthier Wisconsin Endowment at the Medical College of Wisconsin. EIB is funded through December 31, 2016.

**QUESTION: Who are the EIB partners?**

**ANSWER:** EIB partners include Children’s Health Alliance of Wisconsin, the Medical College of Wisconsin-Center for the Advancement of Underserved Children, State of Wisconsin-Department of Health Services, Wisconsin Head Start Association, the Wisconsin Dental Association, and the Wisconsin Department of Public Instruction. Additionally, Marquette School of Dentistry serves as a consultant to the project.

#### **Home visitor/parent educator training**

**QUESTION: How was the EIB parent educator/home visitor oral health training developed?**

**ANSWER:** EIB partners used experience from a Birth to 3 home visitor oral health pilot project; feedback from WI EHS pregnant women; families and parent educators/home visitors focus groups; current pediatric dental knowledge; and evidenced-based oral disease prevention strategies to develop the 3 hour EIB home visitor/health educator oral health training.

**QUESTION: How many of WI EHS programs and staff has received oral health training?**

**ANSWER:** As of April 30 2014, 138 staff, serving approximately 1,700 WI EHS enrollees, in 12 WI EHS programs have been trained.

#### **Parent Oral Health Education Toolkit (POHET)**

**QUESTION: How were the components of the POHET chosen?**

**ANSWER:** EIB partners used feedback from WI EHS pregnant women, families and parent educators/home visitors through focus groups and reviewed oral health education materials that were developed by national and state organizations. The materials chosen are supported by current dental knowledge and most are publicly available.

**QUESTION: What types of materials are included in the POHET?**

**ANSWER:** POHET includes hands-on activities such as tooth-brushing models, oral health flip charts goal setting magnets, pictures of tooth decay, oral hygiene supplies and handouts for parents.

**QUESTION: How is the POHET delivered to parents?**

**ANSWER:** The POHET trained parent educators/home visitors discuss oral health four times per year with EHS families and pregnant women during their weekly 90 minute home visits.

**QUESTION: What resources are available on oral health for pregnant women and families of young children?**

**ANSWER:** Oral health resources for pregnant women and families with young children can be found on the Children’s Health Alliance of Wisconsin website, [www.chawisconsin.org](http://www.chawisconsin.org).

#### **Access to dental care**

**QUESTION: What are the major barriers to dental care access identified by Early Head Start pregnant women, families and parent educators/home visitors?**

**ANSWER:** Barriers to dental care access identified during focus groups include:

- Limited number of dental providers that accept Medicaid.
- Long waits for dental appointments.
- Lack of transportation to dental clinics.
- Parent/caregiver/pregnant woman fear of going to the dentist.
- Limited number of dental clinics that accept young children.

**QUESTION: What are ways that Early Head Start pregnant women, families and parent educators/home visitors identified to improve access to dental care?**

**ANSWER:** Focus groups identified that dental access could be improved by:

- Having more dental providers that accept state insurance.
- Having more dentists so distance to clinics is shorter.
- Having more dental clinics for toddlers.
- Building relationships with dental clinics to get EHS families in faster.

**QUESTION: Who are the key players that Early Head Start pregnant women, families and parent educators/home visitors think should be involved in improving access to dental care?**

**ANSWER:** Focus groups identified the following key players in improving dental care access:

- Pediatricians.
- Caregivers.
- Wisconsin Dental Association.
- Parents.
- Insurance companies.
- Government representatives.

## **Research Study Questions**

**QUESTION Can a parent/caregiver or pregnant woman who is under 18 enroll in the research study?**

**ANSWER:** No. Research requirements dictate that only individuals over the age of 18 can sign consent and parental permission must be obtained for anyone under 18. At this time, we have decided that due to logistical concerns of obtaining parental permission and the relatively small number of parents/caregivers and pregnant women who are under 18, we will not be enrolling this group of individuals in the EIB study.

**QUESTION: Who do I list under “Name of Study Subject” on P. 1 of the Consent Form?**

**ANSWER:** The name of the parent/caregiver who is participating in the POHET sessions and completing the pre- and post-surveys should be listed as the Study Subject on P. 1.

**QUESTION: Where does the parent sign the Consent form?**

**ANSWER:** The parent signs the Consent Form on p. 6 of the Consent Form, *Subject’s Name/Signature*.

**QUESTION: When do I use the Legally Authorized Representative signature line?**

**ANSWER:** This line is only used when the individual who is completing the POHET sessions and the pre- and post-surveys does not have legal decisional capacity. If the individual has a legally authorized individual who has the authority to make decisions on their behalf they would sign here. There are very few cases when this line is necessary.

**QUESTION: An additional family member was involved in the POHET sessions. Can they sign the “Witness” line on p. 6?**

**ANSWER:** No. This line is only for use when *a translator is used to translate* the consent from English into another language or if the parent tells you that they are illiterate and need to have the form read to them. If you need to use the witness line for any of these reasons, please attach a brief note explaining the situation for the research coordinator to document.

**QUESTION: Where do I as the study team member sign?**

**ANSWER:** Early Head Staff who consent participants sign the “Name of person discussing/obtaining consent” line on p. 7.

**QUESTION: What if an error is made on the Consent Form?**

**ANSWER:** If an error is made (signature on wrong long, wrong date, etc.), simply instruct the participant to make a single strike through and initial the error and sign/date/etc. with the correct information in the correct location on the form. You can also attach a brief note if you are not sure what to do for the research coordinator to document.

**QUESTION: Parents keep asking me why we ask them the same questions every time and I don’t have a good answer.**

**ANSWER:** One way to evaluate knowledge is to use pre and post surveys. We ask the same questions so that we can assess whether or not the program is working. We need to be able to compare answers from session to session to see if there are changes after POHET sessions have occurred. Some questions, such as age, education may not change. If you want, you can fill in these responses for the parents ahead of time based on their previous responses.

**QUESTION: What do I do with completed parents/caregivers and pregnant women consent forms and surveys?**

**ANSWER:** Send completed forms to Earlier Is Better project manager Diane Flanagan.

**QUESTION: Do I start over with new consent forms and surveys for an EHS family if all four oral health sessions are not completed during one school year and the family is enrolled in the following year?**

**ANSWER:** No, if you are in the middle of the sessions with a family when the school year ends, you can continue to complete the 4 sessions without having to start back over with Session 1 if you are working with the same family from one school year to another.

**QUESTION: Do I have a pregnant woman sign a new consent form and add their newborn to the survey, if she delivers and now mother and child are enrolled in Early Head Start?**

**ANSWER:** Yes, if a pregnant woman delivers and the child is enrolled in the study, you should have the mother complete the consent form and include the infant as part of the study if the infant is enrolled in EHS. If the infant is not enrolled in EHS, you do not need to have the consent form signed again.

**QUESTION: Who do I contact if I have questions?**

**ANSWER:** Contact the Earlier Is Better project manager Diane Flanagan at (414)337-4564 or [dflanagan@chw.org](mailto:dflanagan@chw.org).

**QUESTION: How do EHS POHET trained home visitors obtain additional oral hygiene supplies for EHS families?**

**ANSWER:** Contact the Earlier Is Better project manager Diane Flanagan at (414)337-4564 or [dflanagan@chw.org](mailto:dflanagan@chw.org).

## ATTACHMENT 6

### PARENT ORAL HEALTH EDUCATION TOOLKIT (POHET)

Children's Health Alliance of Wisconsin, in partnership with Medical College of Wisconsin, Wisconsin Dental Association, Wisconsin Department of Health Services Oral Health Program and Wisconsin Head Start Association has developed the Parent Oral Health Education Toolkit. The toolkit is designed for non-dental home visitors/parent educators to support pregnant women and families of children under the age of 3 with oral health decision making. Oral health education methods include goal setting, motivational interviewing, identifying oral health barriers and developing strategies to achieve optimal oral health.

#### Educational materials, conveniently contained in a zippered shoulder bag, include:

- Red flags checklist
- Flip charts
- Oral health activities for children
- Hands-on animal tooth brushing model
- Goal-setting magnets
- Toothbrushes and toothpaste
- Take home education materials



For additional information on Earlier Is Better and home visitor training contact:  
Diane Flanagan, Senior Project Manager – Oral Health,  
Children's Health Alliance of Wisconsin  
(414) 337-4564 or [dflanagan@chw.org](mailto:dflanagan@chw.org)

# ATTACHMENT 7

## Goal Setting Magnets (Available in English & Spanish)



**Pregnant women and infants**  
5" x 5"



**Children ages 1 to 3**  
5" x 7"

# ATTACHMENT 8

## Red Flags Checklist Pregnant woman & infant (Available in English & Spanish)

Name \_\_\_\_\_ Due date \_\_\_\_\_

Child's name \_\_\_\_\_ DOB \_\_\_\_\_

### Oral Health Red Flags Checklist

Questions for pregnant woman: (circle response)

1.	Yes	No	Do you have swelling of the face from an infected tooth?
----	-----	----	--

**If "Yes" response to question 1, the pregnant woman should immediately proceed to the nearest hospital emergency department.**

2.	Yes	No	Do you have tooth pain, infection or abscess?
----	-----	----	---

**If "Yes" response to question 2, arrange dental appointment within 24 hours.**

3.	Yes	No	Do you have cavities?
----	-----	----	-----------------------

4.	Yes	No	Do your gums bleed?
----	-----	----	---------------------

5.	Yes	No	Do you have any other dental problems or concerns?
----	-----	----	--

6.	Yes	No	Does your child have any white spots on teeth or cavities?
----	-----	----	--

**If "Yes" response to any question, refer to dentist and offer case management if needed.**

7.	Yes	No	Do your other children have any dental problems or concerns like cavities?
----	-----	----	--

8.	Yes	No	Does your child drink juice between meals?
----	-----	----	--

9.	Yes	No	Does your child use a bottle or sippy cup?
----	-----	----	--

10.	Yes	No	Does your baby fall asleep while nursing or with a bottle that contains juice, baby formula or milk?
-----	-----	----	--

**It is recommended that children be linked to a dental home by age 1. If "Yes" response to any question, child should be referred to a dentist.**

11.	Yes	No	Do you brush your child's teeth with fluoride toothpaste?
-----	-----	----	---

12.	Yes	No	Do you have fluoride in your home water supply?
-----	-----	----	---

13.	Yes	No	Do you have a dental home for regular dental care?
-----	-----	----	--

Referred to a dentist? Yes No Name of dentist \_\_\_\_\_



### Circled goals

On a scale of 1 – 10 (1=least likely, 10=most likely) how confident was the pregnant woman or parent/caregiver that goal could be accomplished? 1 2 3 4 5 6 7 8 9 10

Date \_\_\_\_\_ Comments \_\_\_\_\_

Date \_\_\_\_\_ Comments \_\_\_\_\_

Date \_\_\_\_\_ Comments \_\_\_\_\_

**Red Flags Checklist Child** (Available in English & Spanish)

Child's name \_\_\_\_\_ DOB \_\_\_\_\_

**Oral Health Red Flags Checklist**

Questions for a child's parent/caregiver: (circle response)

1.	Yes	No	Does your child have swelling of the face from an infected tooth?
----	-----	----	---

**If "Yes" response to question 1, child and parent should immediately proceed to the nearest hospital emergency department.**

2.	Yes	No	Does your child have tooth pain, infection or abscess?
----	-----	----	--

**If "Yes" response to question 2, arrange dental appointment within 24 hours.**

3.	Yes	No	Does your child have any white spots on teeth or cavities?
----	-----	----	--

**If "Yes" response to question 3, refer to dentist and offer case management if needed.**

4.	Yes	No	Do you (parent/caregiver) have any dental problems or concerns like cavities?
----	-----	----	---

5.	Yes	No	Do your other children have any dental problems or concerns like cavities?
----	-----	----	--

6.	Yes	No	Does your child drink juice between meals?
----	-----	----	--

7.	Yes	No	Does your child use a bottle or sippy cup?
----	-----	----	--

8.	Yes	No	Does your baby (6-18 months) fall asleep while nursing or with a bottle that contains juice, baby formula or milk?
----	-----	----	--

**It is recommended that children be linked to a dental home by age 1. If "Yes" response to any question, child should be referred to a dentist.**

9.	Yes	No	Do you brush your child's teeth with fluoride toothpaste?
----	-----	----	---

10.	Yes	No	Do you have fluoride in your home water supply?
-----	-----	----	---

11.	Yes	No	Does your child have a dental home for regular dental care?
-----	-----	----	---

Referred to a dentist? Yes No Name of dentist \_\_\_\_\_



**Circled goals**

On a scale of 1 – 10 (1=least likely, 10=most likely) how confident was the parent/caregiver that goal could be accomplished? 1 2 3 4 5 6 7 8 9 10

Parent/Caregiver name \_\_\_\_\_

Date \_\_\_\_\_ Comments \_\_\_\_\_

Date \_\_\_\_\_ Comments \_\_\_\_\_

Date \_\_\_\_\_ Comments \_\_\_\_\_

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IS  
BETTER**

ORAL HEALTH PROGRAM  
FOR EARLY HEAD START  
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***This project is funded by the Healthier Wisconsin Partnership Program, a component of the Advancing a Healthier Wisconsin Endowment at the Medical College of Wisconsin.***