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Strategies for Promoting Prevention and Improving Oral Health Care Delivery in Head Start: Findings from the Oral Health Initiative Evaluation

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Strategies for Promoting Prevention and Improving Oral Health Care Delivery in Head Start: Findings from the Oral Health Initiative Evaluation

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EXECUTIVE SUMMARY

Dental caries is the most common chronic disease among children, with low-income children and ethnic minority children bearing a disproportionate burden of the disease (U.S. DHHS 2000, 2003). Studies show that children living in poverty suffer twice as many dental caries as their higher-income peers (U.S. DHHS 2000, 2003). Since the publication of *Oral Health in America: A Report of the Surgeon General* (2000) and its companion document, *A National Call to Action to Promote Oral Health* (2003), increased national attention has focused on the unmet oral health needs of many of the nation's children and families. This crisis was further brought to light by the deaths of two young children in 2007 from untreated oral health needs (Berenson 2007).

In addition to experiencing a high prevalence of caries, low-income children face barriers to accessing dental care. Data from the National Health and Nutrition Examination Survey indicate that from 2001 to 2004, low-income children and adults were more likely than their higher-income peers to have untreated dental caries (Centers for Disease Control and Prevention 2007). Commonly cited factors contributing to these unmet needs in dental care include cost of care; lack of insurance coverage; lack of understanding about the need for oral health care for young children; and an overall inadequate supply of dentists, including dentists willing to treat Medicaid-eligible children (Mouradian et al. 2000).

Promoting oral health is an important concern for the Office of Head Start, since many of the risk factors for dental caries characterize the Head Start population.[1] The Head Start Program Performance Standards require that a health care professional determine within 90 days of enrollment whether children are up to date on a schedule of age-appropriate preventive dental care. Dental followup must include necessary preventive measures and further dental treatments as recommended by the dental professional. Many Head Start programs, however, face challenges in meeting these requirements because of barriers to accessing oral health services faced by many Head Start families.

The Office of Head Start invested $2 million in grants to 52 Head Start, Early Head Start, and Migrant/Seasonal Head Start programs to implement the Head Start Oral Heath

[1]Throughout this report, references to Head Start programs and families include Head Start, Early Head Start, and Migrant/Seasonal Head Start programs and families unless otherwise noted.

Initiative (OHI) in 2006. The OHI grantees receive supplemental funding over a four-year period to develop, implement, and disseminate culturally sensitive, innovative, and empirically based best practice oral health models that meet the needs of the communities and populations they serve.

To ensure consistent, systematic collection and analysis of information on OHI's implementation, the Office of Head Start contracted with Mathematica Policy Research, Inc. (MPR) and its subcontractor Altarum to conduct a two-year implementation evaluation of OHI. The evaluation focused on documenting implementation strategies and challenges and identifying service delivery strategies that show promise for replication. Data sources for the evaluation included (1) telephone interviews with program directors and other key staff from the 52 OHI grantees, conducted in February and March 2007; (2) a project-specific program record-keeping system designed to collect data on the characteristics of the children, families, and pregnant women enrolled in OHI and the oral health services they received, collected from February 2007 through January 2008; and (3) site visits to a subset of 16 grantees, conducted from October through December 2007.

RESEARCH QUESTIONS

Seven primary research questions guided the evaluation:

1. What are the community contexts for OHI?

2. What are the characteristics of the families and children who receive services through OHI?

3. What program models are grantees developing to improve the oral health care delivery systems for Head Start children and pregnant women?

4. What types of community partnerships are grantees forming to increase Head Start families' access to oral health care services?

5. What services are Head Start families receiving through OHI?

6. Can the models and service delivery practices developed by grantees be sustained in the community after grant funding ends?

7. Which service delivery practices show promise for promoting oral health prevention principles among Head Start families?

KEY FINDINGS

The OHI grantees developed and implemented oral health service delivery strategies that were responsive to the characteristics of their communities and the needs of the children and pregnant women they served. Implementing these services and activities required substantial amounts of staff time, often more than grantees originally estimated. OHI allowed grantees to lay the groundwork for the partnerships, services, and policies that

they will continue to provide after the grant period. Despite these efforts, grantees anticipated having to eliminate or reduce some aspects of their initiatives after the grant funding ends. This section summarizes the evaluation's main findings and is organized according to key research questions.

WHAT ARE THE COMMUNITY CONTEXTS FOR OHI?

The 52 OHI grantees—selected by the Office of Head Start through a grant competition—administered diverse Head Start programs with unique geographic locations, program sizes, and target populations. The OHI grantees were geographically diverse, representing all 12 Administration for Children and Families (ACF) regions and include 18 states. Forty-two percent of grantees defined their service areas as rural only; another 33 percent described their service areas as a mix of rural and urban; and the remaining 25 percent defined their service areas as primarily urban. Almost two-thirds of OHI grantees operated both Head Start and Early Head Start programs (60 percent), and more than half offered both home-based and center-based services (54 percent).

Nearly all grantees reported a shortage of dental providers in their communities, especially those willing to accept public insurance plans and to serve young children. Beyond limited access, grantees described five other factors that put children at risk for poor oral health outcomes: (1) a shortage of dental facilities with multilingual and culturally competent staff; (2) inadequate access to dental insurance, especially among immigrant families; (3) a lack of dental providers offering appointments at times convenient for families, including evenings and weekends; (4) inadequate personal and public transportation to dental care appointments; and (5) a lack of fluoridated community drinking water.

WHAT ARE THE CHARACTERISTICS OF THE FAMILIES AND CHILDREN WHO RECEIVE SERVICES THROUGH OHI?

Among children enrolled in OHI and reported in the record-keeping system, about one-quarter were infants and toddlers at enrollment, and more than three-quarters were preschoolers. Nearly all primary caregivers were parents (96 percent) and 89 percent were women. Two-thirds were under age 30 at enrollment. Among pregnant women reported in the recordkeeping system, 87 percent were under age 30 at enrollment; nearly one-quarter were under age 20.

Nearly 40 percent of children enrolled in OHI and recorded in the program record-keeping system were Hispanic or Latino, a similar percentage were white, and almost 20 percent were African American. The ethnic and racial makeup of the primary caregivers of enrolled children was similar. Pregnant women had a slightly different ethnic and racial makeup; one-quarter were Hispanic or Latino, more than 40 percent were white, and nearly 30 percent were African American. About a third of primary caregivers and a quarter of pregnant women spoke a home language other than English, and of these, most did not speak English well. Most of these primary caregivers and pregnant women spoke Spanish, but grantees reported that as many as 27 different languages were spoken by families enrolled in their programs.

Most children and pregnant women enrolled in OHI and recorded in the program record-keeping system had dental insurance coverage. Children, however, were more likely than pregnant women to have coverage (88 percent and 69 percent, respectively). More than three-quarters of children and more than 80 percent of pregnant women with insurance were covered by Medicaid.

WHAT PROGRAM MODELS ARE GRANTEES DEVELOPING TO IMPROVE THE ORAL HEALTH CARE DELIVERY SYSTEMS FOR HEAD START CHILDREN AND PREGNANT WOMEN?

Grantees were given broad latitude in developing their plans for implementing OHI. The Office of Head Start directed grantees to develop models for OHI implementation tailored to the unique characteristics of the children and families they served, as well as the needs and resources of their local communities. All OHI grantees developed goals and objectives in three main areas: (1) increasing access to oral health services, (2) providing oral health education, and (3) developing community partnerships and conducting community outreach. Grantees' approaches to meeting these goals, however, were responsive to the characteristics of their communities and the needs of the children and families they served.

A key decision for the OHI grantees was whether to hire new staff or to rely on existing staff to carry out grant activities. More than half of the grantees (58 percent) reported creating new staff positions with OHI funds; 42 percent relied on existing staff. Even when grantees created new staff positions, existing staff still played critical roles in carrying out grant activities. More than half of the grantees with new staff positions filled them with individuals who had clinical dental experience, in nearly all cases, dental hygienists. Most grantees (79 percent) provided some staff training on oral health since implementation of OHI in order to support staff members in their ability to educate children and families on oral health topics, integrate oral health into all program activities, and generate staff buy-in.

WHAT TYPES OF COMMUNITY PARTNERSHIPS ARE GRANTEES FORMING TO INCREASE HEAD START FAMILIES' ACCESS TO ORAL HEALTH CARE SERVICES?

Grantees reported that their partnerships with community dental providers increased access to oral health care for Head Start children and families. The array of organizations and individuals with which grantees formed partnerships contributed to the development of the initial program design, the implementation, and the direct service delivery of OHI. Grantees reported an average of 16 community partnerships each. Nearly 90 percent of grantees partnered with at least one general dentist and just over three-fourths partnered with at least one pediatric dentist. Other types of partners recruited by at least a quarter of the grantees included clinics; public health departments; Women, Infants and Children (WIC) programs and clinics; dentistry and dental hygiene schools; and dental hygienists. In addition to direct service providers, the OHI grantees partnered with other community stakeholders for oral health education and advocacy activities to improve access to oral health care in the community.

To recruit and maintain community partnerships, grantees dedicated significant staff time to networking and communicating with partners. The main strategies they used to identify these partners included (1) researching agencies with goals similar to their own; (2) soliciting suggestions for potential partners from members of Health Services Advisory Committees; (3) mailing surveys to local dental providers about their willingness to volunteer their time and services, donate supplies, and accept referrals for families on Medicaid; (4) approaching providers at dental fairs and other community-based public health events; (5) identifying providers at professional oral health care meetings, such as dental hygienist meetings; and (6) reaching out to friends and colleagues in the dental field.

Once partners were identified, grantees used a variety of strategies to recruit and retain community partners for OHI, including (1) providing transportation for families to dental appointments to avoid missed appointments; (2) providing payment for dental services through enhanced reimbursements to adjust for low-reimbursement rates providers receive through public insurance; (3) offering continuing education units (CEUs) for providers who participate in OHI training; (4) providing free or low-cost supplies or other in-kind incentives to providers; and (5) offering community-based learning experiences for students of dentistry, dental hygiene, public health, and social work.

WHAT SERVICES ARE HEAD START FAMILIES RECEIVING THROUGH OHI?

OHI grantees implemented activities and services across six major categories: (1) outreach activities; (2) oral health education for parents, children, and pregnant women; (3) establishment of dental homes for children and pregnant women; (4) preventive dental care and treatment services; (5) support services; and (6) distribution of dental hygiene supplies.

Outreach activities. The communities in which grantees were located offered only limited resources to help make dental care more affordable and accessible to low-income families. Many grantees reported that both local agencies serving young children and their families and policymakers were unaware of the importance of oral health care for children and pregnant women. To raise awareness within their communities, grantees provided oral health education and training to providers and policymakers, which extended oral health education and services to the broader community.

Oral health education. Grantees emphasized the need to educate Head Start families about the importance of oral health and the potentially devastating consequences of untreated oral disease. Nearly all grantees (92 percent) provided some form of oral health education for parents and almost half (46 percent) reported providing oral health education specifically tailored to pregnant women and new mothers. The six most common messages on oral health delivered to parents reported by grantees during telephone interviews were (1) the importance of children's oral health to development and systemic health; (2) causes of oral disease and emphasis on their infectious nature; (3) early detection of oral health problems through visual inspection, such as the "Lift the Lip" method; (4) what to expect at the dental office; (5) oral hygiene instruction; and (6) the importance of oral health prevention for the entire family. The content of the information that grantees delivered to

pregnant women was similar to that delivered to parents of enrolled children, but it emphasized messages specific to pregnancy and infant oral health.

Eighty-seven percent of grantees provided oral health education to children. Grantees reported using a variety of materials and props to engage children in oral health topics. Lessons frequently included reading a book about caring for teeth or visiting the dentist. Staff used puppets with oversized teeth and toothbrushes to demonstrate toothbrushing techniques and had puppets of dentists available for children to play with to familiarize them with dental professionals' white coats and tools.

Sixty-five percent of grantees reported using one or more oral health curricula. Rather than relying solely on one curriculum, most reported using components of one primary curriculum in combination with other curricula or resources to better tailor their oral health education to the children and families they served. Grantees also reported tailoring oral health education messages to characteristics of the families they served. In programs that served large Hispanic and Latino populations, grantees commonly mentioned distributing materials written in Spanish, offering separate Spanish-only educational sessions, or having bilingual staff or professional interpreters present at sessions to provide simultaneous interpretation in Spanish. All grantees indicated tailoring written information to the reading levels of parents.

Dental homes. Head Start Program Performance Standards require that grantees assist parents in establishing an ongoing source of accessible dental care for Head Start children. In many communities, however, finding dental homes for families was challenging because few dentists were willing to serve young children and/or accept Medicaid. To help families overcome these challenges, grantees implemented referral systems to connect families with local providers and conducted outreach to dental providers and community partners to encourage them to serve Head Start families. According to program record-keeping system data, close to two-thirds of children and more than one-third of pregnant women had established dental homes during the data collection period.

Preventive dental care and treatment services. In addition to helping families connect with ongoing sources of care, grantees also implemented service delivery strategies aimed at identifying children with a high predisposition to developing oral health problems and increasing their families' access to care. More than 90 percent of grantees reported that they either directly conducted formal risk assessments or referred children and pregnant women to community providers for a risk assessment. Grantees implemented a range of strategies to obtain preventive services and needed follow-up treatments for Head Start children and pregnant women. These strategies included providing on-site preventive services such as oral health screenings and fluoride varnishes (reported by 77 percent of grantees) and referring children and pregnant women to dental professionals for treatment services (92 percent of grantees).

According to program record-keeping system data collected for the evaluation, 54 percent of children received at least one preventive or treatment service between February 2007 and January 2008; 42 percent received more than one service. For pregnant women, the rates were lower, with 29 percent receiving one service and 22 percent receiving more

than one service. Across all grantees, the most common services children received were dental screenings and exams (48 percent), followed by fluoride treatments, such as fluoride varnishes and supplements (40 percent). Twenty-five percent of pregnant women received dental exams or screenings and 14 percent received dental cleanings. Far fewer children and pregnant women received treatment services, but of those who did, most received fillings. Services were delivered by a variety of providers, most often by a community partner (58 percent of all services). Dental hygienists who were on staff or under contract to the OHI grantees provided one-fifth of the preventive services.

Support services. To facilitate the provision of preventive and treatment services, grantees reported providing a range of support services. The types of support services grantees offered included assisting families in making appointments, arranging or providing transportation, providing or arranging for interpretation services for families that spoke a language other than English, sending out reminder notices or making reminder calls to families about appointments, and accompanying families to appointments.

Dental hygiene supplies. Ninety percent of OHI grantees distributed oral hygiene supplies to families, such as toothbrushes, fluoride toothpaste, gauze and finger cloths for wiping infants' gums, and dental mirrors for parents to use to check children's teeth. These supplies reinforced educational messages and ensured that parents had the tools needed to care for their children's oral health.

CAN THE MODELS AND SERVICE DELIVERY PRACTICES DEVELOPED BY GRANTEES BE SUSTAINED IN THE COMMUNITY AFTER GRANT FUNDING ENDS?

The OHI grant offered the 52 grantees the opportunity to develop and implement service delivery strategies to address the oral health needs of the children they served. During the grant period, grantees made strides toward implementing sustainable models by forming partnerships with community providers who would serve Head Start children, adopting oral health curricula, training staff to increase knowledge agency-wide about the importance of oral health, and developing policies and procedures aimed at incorporating OHI service delivery strategies into regular program operations. Despite these efforts, all grantees that participated in site visits reported that without OHI funding, many aspects of their initiatives would need to be eliminated or reduced. These included OHI lead staff positions, provision of preventive and treatment services, educational opportunities for children and parents, and community partnerships.

WHICH SERVICE DELIVERY PRACTICES SHOW PROMISE FOR PROMOTING PREVENTION AND IMPROVING ORAL HEALTH CARE DELIVERY?

Although grantees made substantial progress toward meeting oral health-related goals, they reported ongoing challenges related to meeting Head Start Program Performance Standards for oral health care and their own program-specific goals related to oral health. The challenges commonly identified by grantees during telephone interviews and site visits included (1) understanding Head Start Program Performance Standards on oral health, (2) completing dental exams for all children, (3) securing dental treatment, (4) engaging parents, (5) arranging and/or paying for dental treatment for children and pregnant women, (6) maintaining staff engagement, (7) hiring dental hygienists, (8) delivering fluoride varnish applications to all children, and (9) maintaining community partnerships, and (10) understanding state rules on Medicaid reimbursement for dental hygienists.

In response to these challenges, grantees adjusted the strategies they implemented and tried new approaches to service delivery. During the site visits, the researchers sought to learn why grantees selected particular strategies and service delivery models, how they implemented those strategies and services, and the successes and challenges grantee staff and community partners experienced. The research team used this information to systematically identify implementation strategies that show promise for replication. To achieve this goal, MPR and Altarum analyzed data collected during site visits to the 16 grantees and a full year of program record-keeping system data from these 16 grantees. The researchers identified a range of strategies that emerged as showing promise for replication within nine service delivery approaches.

Train Staff Members to Achieve Staff Buy-in Regarding the Importance of Oral Health and to Enable Them to Carry Out Oral Health Education with Children and Families. Within this approach, the research team identified three strategies that show promise for replication: (1) train teachers and other direct service staff on materials and curricula to facilitate lessons on oral health; (2) train all agency staff on oral health–related topics during preservice training; and (3) conduct ongoing in-service training for teachers, home visitors, and family services workers on oral health education.

Hire Staff to Support the Delivery of Oral Health Services. The research team identified four strategies related to staffing that show promise for replication: (1) hire a dental hygienist who can provide on-site dental services, (2) hire someone with a background in oral health to oversee oral health activities, (3) hire someone familiar with the language and culture of the community who is able to communicate effectively with families, and (4) contract with one or more dental hygienists to provide on-site services.

Recruit Dental Providers to Serve Head Start Families. Within this approach, the research team identified five strategies for recruiting dental providers: (1) join oral health stakeholder groups to familiarize providers with Head Start; (2) work with a key stakeholder in the community to engage dental providers; (3) provide training opportunities for health care professionals and other potential partners; (4) work with local college and university

departments to familiarize professionals with Head Start; and (5) individualize Head Start tracking systems to meet the needs of dental providers.

Implement Case Management Procedures to Increase Rates of Preventive Care and Needed Treatment Children and Pregnant Women Receive. Within this approach, the research team identified four emerging strategies: (1) report results of dental screenings to parents and direct service staff to encourage followup; (2) update risk-assessment and dental screening results throughout the year to track receipt of dental services; and (3) assign an oral health coordinator (or other designated staff person) to follow up with families that are unresponsive to requests by direct service staff.

Provide Preventive Care to Children and Pregnant Women on Site, at Special Events, or Through Referrals. Within this approach, the research team identified four strategies for the provision of preventive care: (1) provide preventive oral health services on site conducted by a community partner or dental hygienist; (2) offer dental fairs and/or clinics at which Head Start families can receive preventive care; (3) team with local medical providers (pediatricians, family practice doctors, nurses, nurse practitioners) to provide oral health screenings and/or fluoride treatments during doctor visits; and (4) establish partnerships with local dental providers willing to accept referrals of Head Start children and pregnant women.

Offer Support Services to Families to Help Them Make and Keep Dental Appointments. Strategies to help families make and keep appointments include the following: (1) transport families to appointments, or arrange transportation; (2) send reminder notices/make reminder phone calls to families about upcoming appointments; (3) make appointments for families or help them make appointments; and (4) assist families in covering the costs of needed dental care.

Educate Parents About the Importance of Oral Health. To educate parents, the following strategies show promise: (1) provide education for parents during on-site dental services or during dental appointments; (2) offer parent meetings or workshops focused on oral health; (3) include information on oral health at all parent meetings; (4) offer incentives to parents who attend parent meetings and workshops; (5) reinforce education conducted during parent meetings, workshops, and appointments with informational materials that are sent home to parents; and (6) tailor educational materials to parents' reading levels and primary languages.

Educate Children About How to Care for Their Teeth and What to Expect During Dental Services. Within this approach, the research team identified three strategies that show promise for replication: (1) arrange for dental hygienists, dentists, or other oral health specialists conduct oral health education with children; (2) provide education during on-site services and at dental appointments; (3) integrate an oral health curriculum into daily or weekly lessons; and (4) conduct oral health education with children prior to dental services to familiarize them with the services.

Integrate Oral Health–Related Activities and Services into Existing Management Systems. To integrate oral health–related activities and services into existing

management systems, emerging strategies include the following: (1) implement program policies and procedures on oral health components (screenings and exams, education, toothbrushing, fluoride varnish) and (2) integrate monitoring of oral health policies into agency-wide monitoring systems.

POTENTIAL NEXT STEPS

National attention has been given to the oral health needs of low-income children and the need to address the disparities in care that exist between these children and their higher-income peers (U.S. DHHS 2000, 2003). OHI represents the first step in developing strategies designed to address these disparities and increase access to care for Head Start children. Through their experiences in implementing the initiative, grantees have demonstrated the feasibility of recruiting dental providers to serve Head Start children, the levels of need for and interest in these services among Head Start families, the levels of service delivery that can be achieved, and the staffing patterns that seem most promising. They have also identified a number of lessons related to implementation and service delivery that could be applied to future attempts at replication.

Experiences of the OHI grantees also suggest that initiatives for addressing the oral health needs of Head Start children can be implemented in Head Start programs with fairly modest amounts of additional resources. Overcoming barriers to accessing needed services, however, is labor intensive and requires staff who can devote substantial effort and focus on addressing families' oral health needs. The OHI grantees will need to identify additional sources of funding for covering the cost of staff dedicated to oral health services, for contracting with dental hygienists to provide on-site preventive care, and for purchasing educational materials and dental hygiene supplies.

CHAPTER I

INTRODUCTION

Dental caries is the most common chronic disease among children, with low-income children and ethnic minority children bearing a disproportionate burden of the disease (U.S. DHHS 2000, 2003). Studies show that children living in poverty suffer twice as many dental caries as their higher-income peers (U.S. DHHS 2000, 2003). Since the publication of *Oral Health in America: A Report of the Surgeon General* (2000) and its companion document, *A National Call to Action to Promote Oral Health* (2003), increased national attention has focused on the unmet oral health needs of many children and families. This crisis was further evidenced by the deaths of two young children in 2007 from untreated oral health needs (Berenson 2007).

In addition to the high prevalence of caries, low-income children face barriers to accessing dental care. Data from the National Health and Nutrition Examination Survey indicate that during 2001 to 2004 low-income children and adults were more likely to have untreated dental caries than their higher income peers (Centers for Disease Control and Prevention 2007). Commonly cited factors contributing to these unmet needs in dental care are cost of care; lack of insurance coverage; lack of understanding about the need for oral health care for young children; and an overall inadequate supply of dentists, including dentists willing to treat Medicaid-eligible children (Mouradian et al. 2000).

Promoting oral health is an important concern for the Office of Head Start, since many of the risk factors for dental caries—children from racial and ethnic minority families and low-income families are disproportionately affected by caries—characterize the Head Start population.[2] Furthermore, early preventive care is particularly important since the prevalence of dental caries has been shown to increase with age (Vargas et al. 2002). The Head Start Program Performance Standards require that a health care professional determine within 90 days of enrollment whether children are up to date on a schedule of age-

[2]Throughout this report, references to Head Start programs and families include Head Start, Early Head Start, and Migrant/Seasonal Head Start programs and families unless otherwise noted.

appropriate preventive dental care.[3] Dental followup must include necessary preventive measures and further dental treatments as recommended by the dental professional. Many Head Start grantees, however, face challenges in meeting these requirements because of barriers to accessing oral health services faced by many Head Start families.

Two state surveys of the oral health status of children attending Head Start programs reveal the extent of the problem. To determine the oral health status of preschool children attending Head Start centers in Maryland, researchers conducted clinical caries examinations on 482 children between ages 3 and 5 from 37 Head Start centers (Vargas et al. 2002). The study found that the overall prevalence of untreated decay was 52 percent, with a higher prevalence found in rural than in urban Head Start centers (Vargas et al. 2002). The prevalence of caries increased by age from 43 percent for 3-year-olds to 62 percent for 4-year-olds (Vargas et al. 2002). A study of Ohio's Head Start programs revealed that 38 percent of screened children ages 3 to 5 had experienced caries, and of these, 73 percent had decayed teeth (Siegal et al. 2005). Moreover, 11 percent of the Head Start parents surveyed reported that they could not get needed dental care for their children (Siegal et al. 2005).

To address issues of access to care and difficulties achieving full compliance with Head Start Program Performance Standards in the area of oral health, the Office of Head Start has formed partnerships with both the Maternal and Child Health Bureau (MCHB) in the Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services (U.S. DHHS), and the American Academy of Pediatric Dentistry (AAPD). The National Head Start Oral Health Resource Center (NHSOHRC) was established to assist the Office of Head Start and MCHB in enhancing the availability and quality of oral health services for children and families enrolled in Head Start (Hopewell and Steffenson 2004). In February 2008, the Office of Head Start partnered with AAPD to establish a network of dentists that can serve as dental homes—ongoing sources of routine, preventive, and acute dental care under the supervision of a dentist—for children enrolled in Head Start. Through the partnership, AAPD is developing a national network of general and pediatric dentists to partner with Head Start programs (AAPD 2008).

Furthering its commitment to oral health, the Office of Head Start invested $2 million in grants to 52 Head Start, Early Head Start, and Migrant/Seasonal Head Start programs to implement the Head Start Oral Health Initiative (OHI) in 2006. The OHI grantees receive supplemental funding over a four-year period to develop, implement, and disseminate culturally sensitive, innovative, and empirically based best practice oral health models that meet the needs of the communities and populations they serve. To ensure consistent, systematic collection and analysis of information on OHI's implementation, the Office of Head Start contracted with Mathematica Policy Research, Inc. (MPR) and its contractor Altarum (formerly Health Systems Research) to conduct a two-year evaluation of OHI. This report presents results from the evaluation. The rest of this chapter provides an overview of OHI and the evaluation.

[3]Head Start Program Performance Standards require programs to refer to the Medicaid Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) schedule of age-appropriate dental services in the state where they operate. However, most states do not have a specific schedule for dental services. A more detailed discussion of this issue and its implication for the OHI grantees is included in Chapter IV.

THE HEAD START ORAL HEALTH INITIATIVE

OHI provided an important opportunity for grantees to draw on their community partnerships and lessons learned from previous efforts in order to develop and test the implementation of innovative service delivery models to improve the oral health of Head Start children and families.

OHI Goals

The Office of Head Start defined eight main goals for OHI:

- Improve oral health care delivery systems for children from birth to age 5 and for pregnant women in Head Start programs.
- Learn about the influences of culture on the oral health practices of Head Start families.
- Develop high-quality service delivery models that promote oral health as integral to physical health, as well as oral health prevention principles supported by evidence-based curricula that include use of promising practices, oral health education, and counseling for parents and staff.
- Develop models of oral health care that are sustainable in communities through the development of collaborative partnerships with community and state agencies, as well as with other providers, such as local dentists; dental and dental hygiene schools; local and state health and dental associations; Women, Infants and Children (WIC) clinics; pediatricians; dieticians; and other dental-related groups.
- Solicit buy-in from key stakeholders and demonstrate strategies for future funding and related support after federal grant support ends.
- Develop models of care that integrate oral health into existing local public or private health systems to improve access to care for young children and pregnant women, including the development of referral systems to access pediatric dental services, referral systems for pregnant women, and oral health education.
- Identify models of care that are replicable and develop strategies to share models of care and to disseminate information and lessons learned about OHI.
- Respond to issues addressed in regional and state oral health strategic plans developed through Head Start Oral Health Forums.[4]

[4]In September 1999, the Head Start and Partners Forum on Oral Health brought together representatives from the Office of Head Start; HRSA; the Health Care Financing Administration (HCFA); and the Special

The OHI Grantees

The 52 OHI grantees—selected by the Office of Head Start through a grant competition—administered diverse Head Start programs with unique geographic circumstances, program sizes, and target populations. Each grantee developed a program model for OHI to best suit its characteristics and community needs. The rest of this section describes the OHI grantees, including their geographic locations, agency auspice, program type and size, experience providing services in the community, and the barriers to accessing oral health care faced by the families they served. Information in this section is derived from telephone interviews with 52 grantees conducted in February and March 2007. Table I.1 lists the 52 OHI grantees.

The OHI grantees were geographically diverse. The grantees represented all 12 Administration for Children and Families (ACF) regions, including the American Indian/Alaska Native Program Branch (Region XI) and the Migrant/Seasonal Program Branch (Region XII) (Table I.2). The OHI grantees were from 18 states, including Alaska. Grantees' service areas included a mix of rural and urban locations, with rural areas predominating. During telephone interviews, 42 percent of grantees defined their service areas as rural only; another 33 percent described their service areas as a mix of rural and urban. The remaining 25 percent defined their service areas as primarily urban.

Grantee agencies included a mix of public and private nonprofit agencies, community action agencies, government agencies, tribal governments or consortia, universities and community colleges, and public school districts (Table I.2). In addition to Head Start, grantees reported providing a range of other services in their communities (not shown). For example, community action agencies offered weatherization and energy services, public housing, WIC, employment assistance, programs for the elderly, and workforce development. Private and public nonprofits often provided other early care and education services, such as child care resource and referral and state prekindergarten programs, as well as home visiting and early intervention programs such as Healthy Start and Parents as Teachers.

Most OHI grantees had a long history of providing services in their communities. More than half have been in operation for more than 30 years, with several in operation for more than 40 years. Most OHI grantees operated both Head Start and Early Head Start programs (60 percent); 27 percent operated Head Start only, and 5 percent operated Early Head Start only. Another 8 percent operated Migrant/Seasonal Head Start programs (Table I.2). In addition, most OHI grantees offered both home-based and center-based services. In terms of size, enrollment ranged from 40 to 6,929; average enrollment across grantees was 888 (not shown).

Supplemental Nutrition Program for Women, Infants and Children (WIC), as well as Head Start staff and parents; training and technical assistance providers; pediatric dentists; representatives from Medicaid, Maternal and Child Health, and child care; and regional Administration on Children, Youth and Families (ACYF) staff. The purpose of the forum was to convene a group of representatives from Head Start and other federal agencies, researchers, scientists, practitioners, parents, and advocates to discuss the latest research and evidence-based oral health practices and to develop strategies to implement these practices.

Table I.1. Head Start Oral Health Initiative Grantees

Program	Location
Region I	
Community Action Program Belknap-Merrimack Counties, Inc.	Concord, NH
Easter Seals Head Start	Meriden, CT
Tri-City Community Action Program, Inc.	Malden, MA
Vermont Tooth Tutor Program[a]	Barre, VT
Woonsocket Head Start	Woonsocket, RI
York County Community Action Corporation	Sanford, ME
Region II	
Agri-Business Child Development	Middletown, NY
Opportunities for Otsego	Oneonta, NY
Washington County Head Start/Early Head Start	Hudson Falls, NY
Region III	
Baltimore City Head Start Program	Baltimore, MD
Region IV	
Community Action Council of Lexington, KY—Early Head Start & Head Start	Lexington, KY
Guilford Child Development	Greensboro, NC
Sunbelt Human Advancement Resources, Inc. (SHARE)	Greenville, SC
Suwannee Valley Community Coordinated Childcare, Inc.	Lake City, FL
Region V	
Adams-Brown Counties Early Head Start & Head Start	Georgetown, OH
Arrowhead Early Head Start	Virginia, MN
Child Focus, Inc.	Cincinnati, OH
Community Action Partnership of Ramsey and Washington Counties	St. Paul, MN
Genesee County Community Action Resource Department (GCCARD)	Flint, MI
Lima Allen Council on Community Affairs	Lima, OH
Rock and Walworth CFS, Inc.	Beloit, WI
Semcac Head Start	Rushford, MN
Washtenaw County Head Start Program	Ypsilanti, MI
Wayne County Head Start	Westland, MI
Western Dairyland EOC, Inc.	Independence, WI
Region VI	
Child Care Associates	Fort Worth, TX
Child Development, Inc.	Russellville, AR
Parent/Child, Inc.	San Antonio, TX
Sulphur Springs Independent School District Head Start	Sulphur Springs, TX
University of Arkansas for Medical Sciences	Little Rock, AR
Region VII	
Central Missouri Community Action—Head Start	Columbia, MO
Child Start	Wichita, KS
Project Eagle Early Head Start	Kansas City, KS
Reno County Head Start	Hutchinson, KS

Program	Location
Region VIII	
Bear River Head Start	Logan, UT
Community Partnership for Child Development	Colorado Springs, CO
Kids on the Move	Orem, UT
Region IX	
Child Development Resources of Ventura County, Inc.	Oxnard, CA
Community Action Partnership of Kern	Bakersfield, CA
Institute for Human and Social Development	South San Francisco, CA
Shasta Head Start	Redding, CA
Region X	
College of Southern Idaho—South Central Head Start	Twin Falls, ID
Lower Columbia College Head Start	Longview, WA
Puget Sound Educational Service District	Renton, WA
Region XI – American Indian/Alaska Native Program Branch	
Aleutian Pribilof Islands Association Head Start	Anchorage, AK
Inter-Tribal Council of Nevada Head Start	Reno, NV
San Felipe Pueblo Head Start	San Felipe Pueblo, NM
Yoruk Tribe Head Start	Klamath, CA
Region XII – Migrant/Seasonal Program Branch	
Community Action Council of Lexington, KY—Migrant/Seasonal Head Start	Lexington, KY
CPLC-Early Childhood Development	Phoenix, AZ
East Coast Migrant Head Start Project	Raleigh, NC
Telamon Corp. Michigan Migrant Head Start	Lansing, MI

Source: Office of Head Start.

[a]The Vermont Head Start/Early Head Start Tooth Tutor Program is implemented by seven Head Start grantees. Six of the seven Head Start grantees in Vermont—Central Vermont Community Action Council, Champlain Valley Office of Economic Opportunity, Southeastern Vermont Community Action, Northeast Kingdom Community Action, Rutland Community Programs, and Brattleboro Town School District—are included in the OHI grant.

Table I.2. Characteristics of the Oral Health Initiative Grantees

Characteristics	52 OHI Grantees
ACF Region	
Region I	6
Region II	3
Region III	1
Region IV	4
Region V	11
Region VI	5
Region VII	4
Region VIII	3
Region IX	4
Region X	3
Region XI	4
Region XII	4
Service Area	
Primarily rural	22 (42 percent)
Primarily urban	13 (25 percent)
Mix of rural and urban	17 (33 percent)
Type of Agency	
Public or private nonprofit	21
Community action agency	15
Government agency	4
Tribal governments or consortia	4
University or community college	4
Public school districts	2
Other	2
Program Type	
Head Start and Early Head Start	31 (60 percent)
Head Start only	14 (27 percent)
Early Head Start only	3 (5 percent)
Migrant/Seasonal Head Start	4 (8 percent)
Program Option	
Center based and home based	28 (54 percent)
Center based only	23 (44 percent)
Home based only	1 (2 percent)
Program Size	
1 to 200 children	13 (25 percent)
201 to 600 children	20 (38 percent)
601 to 1,000 children	6 (12 percent)
More than 1,000 children	13 (25 percent)

Source: 2007 telephone interviews with 52 OHI grantees.

THE HEAD START ORAL HEALTH INITIATIVE EVALUATION

The Office of Head Start is committed to collecting and disseminating information about sustainable models and emerging strategies for improving the oral health care delivery system and for promoting oral health care prevention so that all Head Start programs can benefit from the experiences of and lessons learned by the 52 OHI grantees. The evaluation focused on assessing implementation; it was not designed to nor did it assess OHI's impact on children's oral health outcomes. Based on the expected outcomes for OHI identified by the Office of Head Start, MPR and Altarum designed an evaluation to address the following research questions:

- What are the community contexts for OHI?
- What are the characteristics of the families and children who receive services through OHI?
- What program models are grantees developing to improve the oral health care delivery systems for Head Start children and pregnant women?
- What types of community partnerships are grantees forming to increase Head Start families' access to oral health care services?
- What services are Head Start families receiving through OHI?
- Can the models and service delivery practices developed by grantees be sustained in the community after grant funding ends?
- Which service delivery practices show promise for promoting oral health prevention principles among Head Start families?

Data Sources

To address these questions, the research team collected and analyzed information from three main sources: (1) telephone interviews with program directors and/or other key staff from all 52 OHI grantees, (2) a web-based record-keeping system designed for use by all grantees, and (3) site visits to a subset of grantees. The research team produced an interim report in September 2007 that included information from the telephone interviews and four months of record-keeping system data (Del Grosso et al. 2007). The remainder of this report includes information from all three data sources, but it focuses mainly on the record-keeping system data from February 1, 2007, through January 31, 2008, and site visits conducted from October through December 2007. Appendix C includes detailed information about the methodology of the evaluation.

Telephone Interviews. Interviews were conducted in February and March 2007 with 52 OHI grantees.[5] Although the number and type of staff participating in the interviews varied by grantee, three main types of staff members were interviewed: (1) Head Start directors, (2) OHI coordinators, and (3) health coordinators. On average, two respondents participated in each interview (Table I.3). The telephone interview protocol is included in Appendix A.

Table I.3. Type and Number of Telephone Interview and Site Visit Respondents

Respondents	Telephone Interviews	Site Visit Interviews
Director	25	19
Health coordinator	45	14
OHI coordinator	21	8
Other specialist	14	11
Contracted OHI staff	7	0
Evaluation or data management staff	4	1
Direct service staff [a]		65
Community partner staff		45[b]
Parent		125
Total Respondents	**116**	**288**

Source: 2007 telephone interviews with 52 OHI grantees and 2007 site visit interviews with 16 OHI grantees.

Note: Respondents per interview ranged from 1 to 20.

[a]Includes family service manager, teacher, home visitor, center director.

[b]Representing 41 different community partner organizations.

Site Visits. From October through December 2007, the research team conducted site visits to a subset of 16 OHI grantees. To select the subset of grantees for the site visits, the research team used the RE-AIM (Reach, Effectiveness, Adoption, Implementation, and Maintenance) analytic model as a framework for rating grantee performance and selecting 12 high-ranking and 4 lower-ranking programs to participate in the site visits (Glasgow et al.

[5]Fifty-one telephone interviews were conducted in February and March 2007; one telephone interview was conducted in May 2007.

1999; Dzewaltowok et al. 2006; Del Grosso et al. 2007).[6] Appendix C provides more detailed information about how the research team used RE-AIM to select programs for site visits.

The 16 grantees selected to participate in the site visits in Year Two of the evaluation were located in 10 of the 12 ACF regions, and most (63 percent) described their service area as primarily rural. Grantees offered Head Start, Early Head Start, and Migrant/Seasonal Head Start services, with most providing Head Start services only (44 percent). Similar to all OHI grantees, those that participated in site visits provided a mix of home-based and center-based services.

Site visits included individual interviews with key grantee staff, individual or small-group interviews with community partners and oral health service providers, and a focus group with parents. The type and number of staff members interviewed during the site visits varied, but the four most common interviewees included (1) Head Start directors; (2) health coordinators; (3) OHI coordinators; and (4) direct service staff, including teachers, home visitors, center directors, and family service workers (Table I.3). Site visitors conducted focus groups with an average of eight parents at each of the 16 grantees. In addition, they interviewed 45 community partners from 41 different partner organizations. Interview and focus group protocols for the site visits are included in Appendix A.

Program Record-Keeping System. MPR designed a web-based record-keeping system to collect consistent information about children, caregivers, and pregnant women enrolled in OHI and services provided across the 52 grantees. Grantees were trained on the record-keeping system in January and February 2007. OHI grantee staff entered data on five areas into the system: (1) characteristics of children and their primary caregivers and of pregnant women enrolled in the grantee programs; (2) the types of treatment and preventive oral health services children and pregnant women received through OHI; (3) community partner characteristics; (4) the types of education offered to children, parents, and staff; and (5) the types of dental hygiene supplies distributed to Head Start families.

To reduce the burden of data entry, grantees serving more than 200 participants entered data on only 200 participants. MPR worked with grantees to select a purposive sample of centers or classrooms (usually one portion of their total Head Start service area) to include in the record-keeping system. Grantees were given significant leeway in selecting centers and classrooms but were asked to adhere to three criteria: (1) if the grantee served children in Early Head Start, at least one center or home visitor caseload of Early Head Start children had to be included; (2) if the grantee served pregnant women, at least one home visitor

[6]The RE-AIM model evaluates multiple dimensions of a program that contribute to overall public health impact and assesses the replicability of public health promotion interventions to encourage their dissemination. The framework facilitates analysis of public health promotion strategies at both the individual and institutional levels as defined by the following categories: (1) *Reach*: the intervention's reach into the target population, (2) *Effectiveness*: the intervention's effectiveness in modifying health risk, (3) *Adoption*: the extent to which the intervention is adopted in the target setting, (4) *Implementation*: the extent to which services are delivered with fidelity and at the desired level of intensity, and (5) *Maintenance*: the extent to which the intervention and its impacts on participants are maintained over time. Detailed information about the RE-AIM framework and how the research team used it to select a subset of grantees is included in Appendix C.

caseload of these women had to be included; and (3) if more than a third of the grantee's caseload included families that speak a language other than English at home, at least one center serving these children had to be included. MPR also recommended that grantees select centers or classrooms in one geographic area for convenience.

Grantees began entering data in February 2007, after Office of Management and Budget (OMB) clearance was obtained. This report includes information from the record-keeping system covering the period from February 1, 2007, through January 31, 2008. Since most grantees operated on a nine-month program year beginning in the fall, the data collection period limited the research team's ability to track children's and pregnant women's service receipt during the course of an entire program year. Instead, the data presented include children and pregnant women who were enrolled in Head Start (1) during the 2006–7 program year only, (2) during the 2007–8 program year only, and (3) during both program years. Regardless of the period of time children and pregnant women were enrolled in Head Start, the service data recorded in the record-keeping system included services provided only from February 2007 (the second half of the 2006–7 program year) to January 2008 (the first half of the 2007–8 program year). Data fields for the record-keeping system are included in Appendix B.

Analytic Methods

For the final report, MPR and Altarum analyzed a full year of program record-keeping system data and data collected during site visits to 16 grantees. To provide a snapshot of the characteristics of the children and pregnant women enrolled in OHI, the services they received, and the characteristics of community partners, the research team used record-keeping system data to compute descriptive statistics, such as frequencies, means, percentages, and ranges, across the sites. To analyze the site visit data, MPR and Altarum created site visit reports using a standard format to ensure consistency. Because of the large number of grantees in the evaluation, the research team used a qualitative analysis software package, Atlas.ti (Scientific Software Development 1997), to facilitate organizing and synthesizing the large amount of data collected during the site visits. This software enabled research team members to use a structured coding scheme for organizing and categorizing data that are linked to the primary research questions (Table I.4). Once the site visit reports were coded, the research team used Atlas.ti to conduct searches and retrieve data on the research questions and subtopics. The team analyzed these data both within and across sites to identify common themes that emerged across sites, as well as patterns of service delivery, staffing, and other program dimensions.

A primary focus of Volume II of this report is the implementation lessons gleaned from the site visits to 16 grantees. MPR and Altarum highlighted the emerging strategies implemented by the grantees visited. To identify emerging strategies, the research team used a four-step process that involved (1) identifying implementation approaches and strategies, (2) coding site visit reports to identify all grantees using each strategy, (3) using site visit and record-keeping system data to assess the strategies, and (4) identifying strategies that show promise for replication. Detailed information about the methodology the research team used is included in Appendix C.

Table I.4. Codes Used to Analyze Qualitative Data Collected During Telephone Interviews and Site Visits, By Research Question

Research Questions
Community and Grantee Characteristics
What Is the Community Context for the Oral Health Initiative?
Agency background
Head Start program characteristics
Geographic service area
Availability of other services in the community
Family Characteristics
What Are the Characteristics of the Families and Children Who Receive Services Through the Oral Health Initiative?
Family characteristics
Barriers to accessing oral health care
Cultural norms and practices around oral health
Program Models
Which Program Models Are Grantees Developing to Improve the Oral Health Care Delivery Systems for Head Start Children and Pregnant Women?
Rationale for applying for grant
Design process
Goals and objectives
Changes to goals since implementation
Key components
Target population
Annual budget
Implementation
Which Services Are Head Start Families Receiving Through the Oral Health Initiative?
Staff structure
Satisfaction with staff structure
Staff training and technical assistance
Risk assessments for children and families
Treatment and preventive services for children and families
Referral system for families
Support services for families
Dental home definition and approaches
Oral health education for children and families
Oral health curricula
Materials and supplies for children and families
Outreach to broader community
Community Partnerships
Which Types of Community Partnerships Are Grantees Forming to Increase Head Start Families' Access to Oral Health Care Services?
Types of community partners
Identifying and recruiting partners

Research Questions
Roles of partners Partnership lessons Promising practices
Emerging Strategies
Which Service Delivery Practices Show Promise for Promoting Oral Health Prevention Principles? Early implementation lessons Early implementation challenges Early implementation successes
Sustainability
Can the Models and Service Delivery Practices Developed by Grantees Be Sustained in the Community After Grant Funding Ends? Sustainability of funding Other sources of funding

ROADMAP TO THE REPORT

The remainder of the report presents the findings from the evaluation. Chapter II examines grantees' program models, including descriptions of the design process, goals and key components, and staffing structures. In addition, it describes the characteristics of children and their families and pregnant women enrolled in OHI, as well as characteristics of grantees' community partners for OHI. Chapter III describes the services grantees provided. Chapter IV discusses implementation lessons that emerged from the evaluation, presents a summary of the emerging implementation approaches gleaned from the site visits, and describes grantees' plans for sustainability. The site visit protocols are included in Appendix A and data fields for the program record-keeping system are in Appendix B. Appendix C contains methodological information about the RE-AIM analytic framework and the analytic methods used to identify the emerging strategies. Volume II of this report provides profiles of the emerging strategies identified by the research team, including descriptions of the strategies and examples of how grantees implemented the strategies in different program settings and with different target populations.

CHAPTER II

ORAL HEALTH INITIATIVE OVERVIEW

The Office of Head Start funded the Oral Health Initiative (OHI) to address barriers to accessing dental care and to provide oral health preventive and treatment services to Head Start children and pregnant women through innovative designs and implementation strategies. Grantees were given broad latitude in developing their plans for implementing OHI. The Office of Head Start directed grantees to develop models for OHI implementation tailored to the unique characteristics of the children and families they served, as well as the needs and resources of their local communities. Grantees would thereby serve as laboratories for developing promising models that could be disseminated and replicated more broadly across the Head Start system.

This chapter presents important background information about the models developed by the OHI grantees to set the stage for examining service delivery and implementation lessons in subsequent chapters. The chapter begins with a discussion of Head Start grantees' motivations for applying for the OHI grant. Next, it discusses grantees' goals and objectives for OHI, as well as the target populations, staffing, and community partnerships developed for the initiative. Information in this chapter is drawn primarily from telephone interviews with 52 grantees and site visits with a subset of 16 grantees. Data from the program record-keeping system on enrollees' demographics, staff training, and community partnerships are also included.

RATIONALE FOR APPLYING FOR THE OHI GRANTS

The Head Start Program Performance Standards require programs to (1) determine within 90 days of enrollment whether children are up to date on age-appropriate primary preventive health care, including dental exams; (2) document the need for follow-up treatments; and (3) ensure that children receive follow-up care. Nationally, Head Start programs had difficulty meeting these requirements and the oral health needs of the children they serve. In the 2004–5 program year, 85 percent of all preschool-aged Head Start

children completed a dental exam (Hamm 2006). Of these, 26 percent required follow-up treatment and about 80 percent of those needing care were able to access oral health treatment (Hamm 2006). Among children enrolled in Early Head Start, only 30 percent had received a professional dental exam; 61 percent had received an oral screening as part of a well-baby checkup (Hamm and Ewen 2006). Commonly cited factors contributing to unmet dental care needs are cost of care; lack of insurance coverage; lack of understanding among parents about the need for oral health care for young children; and an overall inadequate supply of dentists, including dentists willing to treat Medicaid-eligible children (Mouradian et al. 2000).

Using PIR data for the OHI grantees the research team was able to compare the dental services provided by these grantees prior to the receipt of the OHI grant to Head Start grantees nationally. During the same program year, fewer pre-school aged children enrolled in the OHI grantees received dental exams and slightly more required follow-up treatment. According to program data for the OHI grantees, 74 percent of pre-school aged children attending Head Start received a dental exam during the 2004–5 program year (Table II.1). Of these children, 27 percent were diagnosed as needing treatment. Sixty-eight percent of the children diagnosed as needing treatment received or were receiving treatment by the end of the program year. Among infants and toddlers enrolled in the OHI grantees, a similar percentage received a dental exam as compared to national averages (29 percent), but fewer received an oral health screening as part of a well-bay checkup (48 percent; Table II.1). Nineteen percent of pregnant women enrolled in the OHI grantees in 2004-5 received a dental exam and/or treatment (Table II.1).

During telephone interviews with the 52 OHI grantees, the specific barriers these programs faced and their rationales for applying for the OHI grants were explored. Site visits with a subset of grantees provided the research team with the opportunity to learn more about barriers and rationale.

The most common reason the OHI grantees reported applying for an OHI grant was to address specific oral health care deficiencies within their Head Start service areas and, in some cases, the broader local community (reported by 81 percent of grantees). Nearly all grantees reported a shortage of dental providers, especially providers willing to accept public insurance plans and to serve young children. Beyond limited access, grantees described five other factors that put children at risk for poor oral health outcomes: (1) a shortage of dental facilities with multilingual and culturally competent staff; (2) inadequate access to dental insurance, especially among immigrant families; (3) a lack of dental providers offering appointments at times convenient for families, including evenings and weekends; (4) inadequate personal and public transportation to dental care appointments; and (5) a lack of fluoridated community drinking water.

Table II.1. Dental Services Received by Children and Pregnant Women Enrolled in the OHI Grantees in 2004-5

Dental Services	Percentage of Participants
Preschool-Aged Children (n = 48,679)	
Percentage of preschool-aged children enrolled in the OHI grantees in the 2004-5 program year that received a professional dental exam	74
Of the children that received a dental exam, the percent who received preventive care	71
Of the children that received a dental exam, the percent diagnosed as needing treatment	27
Of the children diagnosed as needing treatment, the percent who received or started receiving treatment	68
Infants and Toddlers (n = 6,325)	
Percentage of infants and toddlers enrolled in the OHI grantees in the 2004-5 program year that received an oral health screening as part of a well baby checkup	48
Number of children who received a professional oral exam	29
Pregnant Women (n = 198)	
Percentage of pregnant women enrolled in the OHI grantees in the 2004-5 program year that received a dental exam and/or treatment	19

Source: Program Information Report 2004-5 data for the OHI grantees.

Note: One OHI grantee was dropped from the analysis because the research team was unable to isolate the delegate agencies that received the OHI grant.

In addition to limited availability and other barriers to care, grantees described dental care as a low priority for Head Start families and reported that parents often lacked knowledge about the importance of oral health care, which limited their likelihood of following up with needed services. Addressing this lack of information was another common reason grantees reported for applying for the OHI grant (reported by 28 percent of grantees). Grantees reported that many parents had their own fears of the dentist that resulted in their being less likely to seek services for their children. OHI offered an opportunity to provide enhanced oral health education to families, especially on the importance of oral health to overall health and obtaining regular dental care.

Grantees also reported applying for the OHI grant to expand preexisting oral health initiatives (reported by 28 percent of grantees). These initiatives were most often funded by state and local agencies and were targeted to a segment of the grantees' total population, such as one geographic area or one age group. The OHI grant allowed grantees to expand these services to their entire service area. Finally, several grantees reported using OHI funds to meet specific oral health policy goals and recommendations.

GOALS AND OBJECTIVES

The OHI grantees developed goals and objectives in three main areas: (1) increasing access to oral health services, (2) providing oral health education, and (3) developing community partnerships and conducting community outreach. The specific goals reported by grantees during telephone interviews included the following:

- Fulfill the oral health requirements of the Head Start Program Performance Standards (100 percent of OHI grantees).[7]

- Increase access to clinical preventive services beyond the scope of the performance standards, such as providing topical fluoride applications and cleanings (100 percent).

- Provide education to children and their families that emphasizes the importance of oral health to overall health and well-being, as well as how to access needed dental services (94 percent). The distribution of oral hygiene supplies was often included in grantees' goals to help reinforce oral health education topics and to promote good oral hygiene practices.

- Initiate and strengthen relationships with community partners and conduct community outreach (71 percent).

- Provide training to increase staff commitment to address oral health and to enable staff to offer support services that help families overcome potential barriers to accessing dental care (54 percent).

- Offer oral health care on an ongoing basis, such as through a dental home (38 percent).

During site visits, researchers asked grantees about the changes they made to their goals and objectives since the telephone interviews. Most grantees reported no changes. Two of the sixteen grantees, however, reported adding an additional goal to OHI. One grantee expanded its goals to include engaging the community in addressing the oral health needs of low-income individuals in general; the other grantee added a goal to improve children's access to preventive services. These grantees explained that the adjustments were made because program staff identified a need during implementation.

[7]The Head Start Program Performance Standards that require programs to (1) determine within 90 days of enrollment whether children are up to date on age-appropriate primary preventive health care, including dental care such as dental exams; (2) document the need for follow-up treatments; and (3) ensure that children receive needed follow-up treatments.

TARGET POPULATION

When designing OHI, grantees had to decide if they would implement services in their entire service area or if they would limit implementation to a specific geographic area or to certain populations within their total enrollment. During telephone interviews, almost all grantees (94 percent) reported targeting their entire service area for OHI services. Few grantees (6 percent) limited OHI services to a subset of their service area, such as centers with large enrollments or those with a history of difficulty meeting the Head Start Program Performance Standards for oral health services.

Fifteen percent of grantees offered access to clinical services, such as dental exams and fluoride varnishes, to family members of enrolled children and pregnant women. Typically, these grantees would invite parents to bring siblings and other family members to centers on the day that dental services were planned; if services were provided in the home, staff would offer services to family members during home visits. One grantee chose to use OHI funds to pay dental providers to treat older siblings and parents; existing Head Start program funds were used to provide clinical services to enrolled children. The grantee also provided education to both families and Head Start children.

Most grantees, however, reported that they did not have sufficient resources to extend this level of service beyond those directly enrolled in Head Start. More often, grantees provided family members with nonclinical services, such as oral health education, information and support for connecting to community dental providers, and oral hygiene supplies. The main family members targeted for these activities across all grantees were primary caregivers, whom grantees believed were the best potential models of good oral health habits in the home.

During site visit interviews, grantee staff members reported only a few changes to their OHI target populations. One grantee that piloted OHI implementation in five centers in the 2006–7 program year expanded implementation to the entire service area in fall 2007. Another grantee expanded services to additional sites not originally included in its implementation plans. The grantee expanded the provision of preventive services for children and provided training for staff. All other grantees visited in Year Two of the evaluation continued with implementation as planned.

Demographic Characteristics of OHI Children and Families from the Record-Keeping System

This section describes the demographic characteristics of children, their families, and the pregnant women served by the OHI grantees and reported in the record-keeping system, as well as their access to dental insurance coverage. The section concludes with information on families' experiences with and knowledge of oral health. Information in the final section is drawn from parent focus groups conducted during site visits.

Among children enrolled in OHI and reported in the record-keeping system, about one-quarter were infants and toddlers at enrollment, and more than three-quarters were

preschoolers (Table II.2).[8] Nearly 40 percent were Hispanic or Latino, a similar percentage of children were white, and almost 20 percent were African American. The ethnic and racial makeup of the primary caregivers of enrolled children was similar (Tables II.3). Pregnant women had a slightly

Table II.2. Demographic Characteristics of Children Enrolled in OHI

Demographic Characteristics	Percentage of Children
Child's Age at Enrollment in Head Start, Early Head Start, or Migrant/Seasonal Head Start	
0–11 months	7
12–23 months	6
24–35 months	11
36–47 months	40
48–60 months	35
More than 60 months	1
Child's Gender	
Female	49
Male	51
Child's Race/Ethnicity	
White, non-Hispanic	36
African American, non-Hispanic	18
American Indian or Alaska Native	4
Asian	2
Pacific Islander	<1
Multiracial/biracial	3
Other race	1
Hispanic/Latino	36
Number of Children	**14,611**

Source: Record-keeping system data from 52 grantees, February 1, 2007 to January 31, 2008.

Note: Missing range from 92 to 2,183 across items because data entry was incomplete.

[8]To reduce the burden of data entry, grantees serving more than 200 participants entered data on only 200 participants. MPR worked with grantees to select a purposive sample of centers or classrooms (usually one portion of their total Head Start service area) to include in the record-keeping system. Grantees were given significant leeway in selecting centers and classrooms but were asked to adhere to three criteria: (1) if the grantee served children in Early Head Start, at least one center or home visitor caseload of Early Head Start children had to be included; (2) if the grantee served pregnant women, at least one home visitor caseload of these women had to be included; and (3) if more than a third of the grantee's caseload included families that speak a language other than English at home, at least one center serving these children had to be included. MPR also recommended that grantees select centers or classrooms in one geographic area for convenience.

Table II.3. Demographic Characteristics of OHI Children's Primary Caregivers

Demographic Characteristics	Percentage of Primary Caregivers
Primary Caregiver's Age at Enrollment in Head Start, Early Head Start, or Migrant/Seasonal Head Start	
Age 20 or younger	3
Ages 20–29	59
Ages 30–39	30
Age 40 or older	8
Primary Caregiver's Relationship to Child	
Parent or stepparent	96
Grandparent	2
Other relative	1
Nonrelative	1
Primary Caregiver's Gender	
Female	89
Male	11
Primary Caregiver's Race/Ethnicity	
White, non-Hispanic	39
African American, non-Hispanic	17
American Indian or Alaska Native	4
Asian	2
Pacific Islander	<1
Multiracial/biracial	1
Other race	<1
Hispanic/Latino	36
Primary Language	
English	68
Spanish	26
Arabic	1
Other	5
If English Is Not Primary Language, How Well Primary Caregiver Speaks English	
Very well	10
Well	18
Not well	72
Number of Primary Caregivers	**14,611**

Source: Record-keeping system data from 52 grantees, February 1, 2007 to January 31, 2008.

Note: Missing range from 1,616 to 3,817 across items because data entry was incomplete.

different ethnic and racial makeup with one-quarter Hispanic or Latino, more than 40 percent white, and nearly 30 percent African American (Table II.4). In telephone interviews, some grantees also indicated that their families tended to reflect a greater degree of cultural diversity than did the general population in the service areas, in part because of the needs of the growing immigrant and refugee populations primarily from Latin America, Asia, and Africa.

According to record-keeping system data about a third of primary caregivers and a quarter of pregnant women spoke a home language other than English, and, of these, most did not speak English well, as was reported in the record-keeping system (Tables II.3 and II.4). Most of these primary caregivers and pregnant women spoke Spanish, but grantees reported during telephone interviews that as many as 27 different languages were spoken at their sites, including Arabic, Haitian Creole, Bengali, Hmong, Korean, Chinese, Somali, Russian, and Vietnamese. In addition, some families from Latin America spoke tribal dialects, such as that of the indigenous Mixtecan culture in southern Mexico.

According to record-keeping system data, nearly all primary caregivers were parents; 2 percent were grandparents, and 2 percent were other relatives or nonrelatives (Table II.3). Two-thirds were under age 30 at enrollment, and 89 percent were women. Among pregnant women, 87 percent were under age 30 at enrollment; nearly one-quarter were under age 20 (Table II.4).

Rates of Dental Insurance Coverage of OHI Children and Pregnant Women

Most children and pregnant women enrolled in OHI and reported in the record-keeping system had dental insurance coverage (Table II.5). Children, however, were more likely than pregnant women to have coverage (88 percent and 69 percent, respectively). More than three-quarters of children and 82 percent of pregnant women with insurance were covered by Medicaid. Other types of coverage included State Children's Health Insurance Program (SCHIP), private insurance, and the Indian Health Service (IHS).[9] Grantees serving large immigrant populations, some of which were ineligible for public insurance, reported lower overall rates of insurance coverage (not shown).

Oral Health Experiences of Families

As described earlier in this chapter, families face a number of barriers that limit their access to oral health services. In addition to these barriers, grantees frequently reported during telephone interviews that families did not follow practices that promoted oral health with their young children. Staff reported that some families allowed their children to drink from bottles containing sugary liquids or use pacifiers dipped in honey up to age 6. Moreover, grantees reported that many families did not think it was important to take care of primary (baby) teeth because they fall out during early childhood. Grantees reported that many families viewed oral health as a lower priority than physical health. In addition, many parents feared taking their children to a dentist because of their own negative or painful

[9]Some states have expanded SCHIP coverage to pregnant women.

experiences. Grantees also noted that immigrant families had particular difficulty accessing health services because they tended to be unfamiliar with service delivery systems and many did not speak English well. During telephone interviews, most grantees attributed families' attitudes and behaviors to a lack of education about the importance of oral health care for young children.

Table II.4. Demographic Characteristics of Pregnant Women Enrolled in OHI

Demographic Characteristics	Percentage of Pregnant Women
Woman's Age at Enrollment in Early Head Start	
Age 20 or younger	24
Age 20–29	63
Age 30–39	13
Age 40 or older	0
Woman's Ethnicity and Race	
White, non-Hispanic	44
African American, non-Hispanic	28
American Indian or Alaska Native	<1
Asian	2
Multiracial/biracial	<1
Hispanic/Latino	25
Primary Language	
English	77
Spanish	20
Other	3
If English Is Not Primary Language, How Well Woman Speaks English	
Very well	6
Well	11
Not well	83
Number of Pregnant Women	**285**

Source: Record-keeping system data from 52 grantees, February 1, 2007 to January 31, 2008.

Note: Missing range from 1 to 41 across items because data entry was incomplete.

Table II.5. Dental Insurance Coverage

	Percentage of Children	Percentage of Pregnant Women
Participants with Dental Insurance	88	69
Participants with Dental Insurance by Type of Insurance		
Medicaid	77	82
SCHIP	9	13
Private insurance	8	4
HIS	1	0
Other	4	1
Number of Participants	**14,611**	**285**

Source: Record-keeping system data from 52 grantees, February 1 to January 31, 2008.

Note: Missing data range from 5 to 300 across items because data entry was incomplete.

SCHIP = State Child Health Insurance Program.

IHS = Indian Health Service.

During site visits, the research team conducted focus groups with families to learn about their experiences caring for their children's teeth and their own experiences with dental care. Most parents with children born in the United States reported that their children had some type of dental insurance coverage. Parents with children born outside the United States were often limited to dental services provided at Head Start centers.

Parents reported that most of their children had been seen by a dentist in the community, and many attributed this access to their connection with Head Start. Others explained that they would not have known to take young children to the dentist if they were not informed to do so by Head Start; they had received varying information from medical and dental providers regarding the appropriate age to schedule a child for his or her first dental appointment. Although dental providers were available, most parents reported limited choices of providers. Others reported having to travel long distances to providers or waiting on long lists for their children to be seen. Finding providers who speak parent's primary languages was also described as a barrier to care.

For the parents themselves, however, access to dental care was much more limited. It was not uncommon for parents to report going without dental care for several years. Parents from about half of the grantees visited reported that they accessed dental care mainly in cases of emergencies; this was true for parents with and without dental insurance coverage. Other parents reported visiting emergency

> "For me and my husband—granted for a lot of people it sounds cheap—but when you have to pay $20 a child a month for insurance, that's like $60 and our $150 a month for just me and my husband, there is no way we can afford that. So we sacrifice us so we can pay for the kids."
>
> --Head Start parent

rooms to have painful teeth extracted, and a few parents even described performing extractions themselves.

Parents from all grantees visited said the main barriers that prevented them from accessing dental care were lack of dental insurance coverage and the high cost of dental care. The majority of parents who participated in focus groups reported that they were uninsured. Those that had dental insurance coverage typically had Medicaid or private insurance.

Even those with coverage reported that finding providers who accepted Medicaid was difficult. If they were able to locate a dentist, parents said they found it frustrating that only one dental concern could be addressed at a time; as a result, they needed to schedule a series of appointments to address all their oral health needs. Some parents who were migrant agricultural workers said they accessed dental care only when they traveled back to their home countries, on a yearly basis or in some cases less often.

Some parents reported that they did not access oral health care because of fear of the dentist stemming from a traumatic childhood experience. These parents said, however, they made an effort not to pass this fear on to their children. In fact, some parents described their own negative experiences as motivation for caring for their children's teeth because they did not want their children to experience the same pain that they did.

> "I take better care of their [children's] teeth because I know what I'm going through so I don't want them to go through it. I want them to be just as perfect as they can be because its rough; I mean what I'm going through is rough."
>
> --Head Start parent

Despite their difficulties accessing care, most parents who participated in focus groups had a good deal of knowledge about the practices that promote oral health in young children. Parents reported learning this information from a variety of sources, including pediatricians, dentists, and Head Start. The parents who participated in focus groups were keenly aware of the importance of caring for their young children's teeth; many described how tooth decay, even at a young age, impacts children's permanent teeth. Parents were asked to describe how they cared for their children's teeth. Across grantees, nearly all parents reported the following:[10]

- Children should be seen by a dentist every six months.
- Children should be seen by a dentist as soon as their first tooth erupts.
- Parents should clean infants' gums, especially after drinking milk.

[10]During focus groups, parents attributed their knowledge of oral health to information they received from pediatricians, dentists, and Head Start. While most parents reported that they had received at least some information about oral health from Head Start; others said they had not received information. Grantee staff suggested that this may be due to the timing of the site visits in the first half of the program year (October through December 2007).

- Parents should begin brushing their children's teeth when their first tooth erupts.

- Children should brush their teeth twice per day.

- Children need only a small dab of paste on the toothbrush.

Fewer parents reported that they examined their children's mouth themselves to look for spots on the teeth or other abnormalities. Others said they limited the amount of sugar they gave their children and emphasized a healthy diet.

Many parents also described teaching their children how to brush their teeth. These parents said they learned proper toothbrushing techniques from dentists or from Head Start staff. Beyond brushing children's teeth, some parents also described flossing their teeth and using disclosing tablets that revealed plaque on teeth. As a means of encouragement, some parents reported singing songs with their children when brushing, or brushing with them. However, most parents said children enjoyed toothbrushing and had incorporated it into their daily routines.

STAFFING

This section describes the staffing structures grantees implemented for OHI and also the training provided to grantee staff. The section concludes with grantees' satisfaction with their staffing structure, as well as advice to other programs about selecting staff for a similar initiative.

Staffing Structure

A key decision for the OHI grantees was whether to hire new staff or to rely on existing staff to carry out grant activities. More than half of the grantees (58 percent) reported creating new staff positions with OHI funds; 42 percent relied on existing staff. Even when grantees created new staff positions, existing staff still played critical roles in carrying out grant activities.

During telephone interviews, the research team found that more than half of the grantees with new staff positions filled them with individuals who had clinical dental experience, in nearly all cases dental hygienists. Hiring dental professionals, however, was challenging for grantees, because of the relatively low salaries offered by the Head Start programs as compared to other employers. Head Start grantees' salary scales often limited their ability to offer competitive salaries and attract dental hygienists. In response to this challenge, some grantees obtained their clinical staff through contracts rather than as new staff hires, which gave them more flexibility to offer competitive compensation. However,

these contractual relationships often resulted in fewer hours and more limited availability than grantees desired.[11]

In more than three-quarters of the grantees that used existing staff to implement OHI, the staff person overseeing health-related activities—typically the health services coordinator, health/nutrition coordinator, or health services manager—took the lead role on OHI. In half of these grantees, such health staff members took sole responsibility for grant coordination; in the other half, this role was shared with other staff. In most cases, these lead grantee staff members reported spending two days a week or less on OHI.

During site visits with 16 grantees, the research team found that grantees had made few changes to their staffing structures since the telephone interviews, and no turnover among staff hired specifically for OHI was reported. A few grantees reported changing the amount of time they spent on OHI activities. Of these, two staff reported increasing the amount of time dedicated to OHI in order to respond to expanded oral health activities and to dedicate more time to networking with and recruiting community providers to serve Head Start children and families. One grantee explained that because she needed to supplement the salary she received from Head Start, she reduced her hours on the initiative so that she could increase the amount of time she worked in private practice.

Satisfaction with Staffing Arrangements

Regardless of their approach to staffing, during telephone interviews most grantees reported satisfaction with their arrangements. Those that hired new staff noted the value of having staff focused full time on the grant, and programs that hired or contracted with dental professionals highly valued this new expertise. However, challenges were also noted. The most common (reported by 29 percent of grantees) was that OHI implementation was more time consuming than anticipated and that more staff resources were needed to implement oral health education, provide preventive and treatment services, follow up with families, and track services. Even programs that created new staff positions routinely noted the labor-intensive nature of the oral health related activities they implemented through OHI grant; some reported that staff members hired or contracted for OHI were working more than anticipated and budgeted.

During site visit interviews, most grantees continued to report satisfaction with the staffing structure they implemented and the staff who carried out OHI. Two grantee directors, however, described some hesitancy about maintaining OHI staff positions in the future. One director explained that because of restructuring at the agency, she was unsure if the OHI position could be maintained. As an alternative, she considered training teachers, home visitors, family service workers, and nurses to arrange preventive care and provide education for children and families. Another director described the goal of OHI as working toward sustainability, which would be achieved by integrating the activities and services

[11]Specific information about the number of hours contracted dental hygenists worker per week was not obtained by the research team.

developed through the OHI grant into regular program operations and staff roles and responsibilities.[12]

Staff Training

In order to support staff members in their ability to educate children and families on oral health topics, integrate oral health into all program activities, and generate staff buy-in for OHI, most grantees provided some staff training on oral health since implementation of the initiative. According to program record-keeping system data, 79 percent of grantees provided training for staff during at least one month between February 2007 and January 2008 (Table II.6).

Table II.6. Training on Oral Health Provided to Staff

	Percentage of Programs
Provided Staff Training at Least Once	79
Number of Months Training Offered to Staff	
0	21
1 to 3	42
4 to 6	23
7 to 9	10
10 to 12	4

Source: Record-keeping system data from 52 grantees, February 1, 2007 to January 31, 2008.

Note: N = 52 grantees. Missing range from 1 to 3 across items because data entry was incomplete.

Training OHI staff was an important focus of grantees. Lead OHI staff members and, in some cases, a few additional staff members often participated in outside conferences and trainings focused on oral health. In addition to increasing their own knowledge and skills, the training bolstered their capacity to, in turn, train other staff. In addition to training lead staff, most grantees conducted training events for a broad range of staff—especially direct service staff, including teachers, family support workers, and home visitors. Grantees trained these staff members to increase their capacity to deliver oral health education to children and families and to stress to them the need to follow up with families regarding dental care for their children. Fewer grantees chose to train staff agency-wide. During site visits, grantees that provided agency-wide training reported using it as a mechanism through which to gain staff buy-in related to OHI and the importance of oral health overall.

[12]Additional information about sustainability of OHI after grant funding ends is included in Chapter IV.

Grantees drew upon a variety of community resources in training their staff (see box). Nearly one-third of grantees reported that staff was trained by dental providers, oral health coalitions, or dental societies. Frequently staff from these grantees attended training sponsored by these groups, or representatives from these groups presented information at grantee-sponsored trainings. One-quarter of grantees reported that staff attended conferences sponsored by Head Start, regional offices, and others. Grantees also reported accessing training resources and materials from consultants, health departments, universities, and foundations.

Community Resources Used to Train OHI Grantee Staff

	Percentage of Programs
Dental providers/oral health coalitions/dental societies	27
Head Start/regional/other trainings and conferences	25
Regional offices	13
Consultants	13
State health department/other state agency	11
Universities	10
Foundations	4

N = 52 grantees.

During telephone interviews, one-third of grantees reported training staff on specific curricula, such as "Cavity Free Kids" (Huntley and Hagen 2004a, 2004b). One-quarter of the grantees trained staff in conducting visual inspections of the mouth, such as "Lift the Lip" (Lee et al. 1993). A few grantees had trained or planned to train staff or partners, including a health educator, nursing students, and community health advocates, to apply fluoride varnish.

During site visits, grantees updated the information about the training activities for staff. All but two grantees provided training in preparation for or during the 2007–8 program year. Most provided either preservice training and inservice training opportunities, or inservice training only. Fewer grantees provided preservice training only. In addition, lead OHI staff from most grantees had participated in additional training, often by attending conferences, regional meetings, or other events.

During site visit interviews with lead OHI staff and home visitors, teachers, and family service workers, most staff members reported that they received sufficient training to carry out their roles on OHI. They said that training improved their ability to educate families and helped them improve their own oral health. Staff from a few grantees identified several areas in which more training would be helpful. The training topics most commonly identified were (1) how to work effectively with parents who are reluctant to address their children's or their own dental care needs, (2) how to engage parents in oral health training opportunities, (3) topics related to the special oral health needs of pregnant women, and (4) training on dental services covered under Medicaid.

Head Start Teacher on the Need for Staff Training on Oral Health

"It's not just one person doing one thing. In order to give full service, we all need to know what we're talking about. Families aren't getting different information because we are training in the same way and getting the same information."

COMMUNITY PARTNERSHIPS

Head Start grantees have extensive experience in developing partnerships with other service providers in their communities. Indeed, the Head Start Program Performance Standards require grantees to develop such collaborative relationships with a range of organizations and providers, including health care professionals. Thus, the OHI grantees were well positioned to build on partnerships they had already formed with local oral health care providers or to form new partnerships if needed. This section provides an overview of the types of community partners involved in OHI, the strategies used by grantees to develop partnerships, and the views of grantee and community partner staff on the successes and challenges of partnerships and how they are working so far.

Types of Community Partners

According to grantees, partnerships with community dental providers increased access to oral health care for Head Start children and families. The array of organizations and individuals with which grantees formed partnerships contributed to the development of the initial program design, the implementation, and the direct service delivery of OHI. Grantees recorded 827 partnerships—approximately 16 per grantee, on average—in the record-keeping system (Table II.7).

Nearly 90 percent of grantees partnered with at least one general dentist and just over three-fourths partnered with at least one pediatric dentist (see Table II.7). Other types of partners recruited by at least a quarter of the grantees were clinics, public health departments, WIC programs and clinics, dentistry and dental hygiene schools, and dental hygienists. The types of partnerships formed varied by the characteristics of grantees' service areas. Grantees located in rural areas reported more partnerships with general and pediatric dentists than did grantees in urban areas (not shown). During site visits, grantees located in rural areas reported having less access to dental service providers (especially those who accepted Medicaid) than did grantees in urban areas. As a result, grantees in urban areas may have been less inclined to form as many partnerships with dentists if they were more readily available to children and families or if the grantees had other types of dental providers to choose from. For example, grantees in urban areas reported more partnerships with dental and dental hygiene schools than grantees located in rural areas (not shown).

In addition to direct service providers, the OHI grantees partnered with other community stakeholders for oral health education and advocacy activities to improve access to oral health care in the community. During telephone interviews and site visits, grantees reported partnering with a wide range of organizations, such as elementary and secondary schools, local businesses, the United Way and other local foundations, homeless and domestic violence shelters, early childhood programs or child care centers, child care resource agencies, English as a Second Language (ESL) providers, public libraries, YMCAs, and the National Guard.

Table II.7. Characteristics of OHI Community Partnerships

Type of Partner	Total Number of Partners Across Grantees	Percentage of Grantees with Each Partner Type
General dentist	403	87
Pediatric dentist	123	76
Dental hygienist	58	29
Other clinic	47	49
Public health department	44	44
WIC program or clinic	24	29
Dental hygiene school	11	25
Ob/gyn	11	5
Dentistry school	9	26
Hospital	8	16
Family practitioner	7	11
Pediatrician	6	11
Nurse practitioner	2	6
Other service provider	26	34
Other	48	48
Total	**827**	
Partnership Formed Prior to OHI	572 (69 percent)	
Formal Partnership Agreement or Written Agreement with Partner	205 (25 percent)	

Source: Record-keeping system data from 52 grantees, February 1, 2007, to January 31, 2008.

Note: N = 827 community partner records across 52 grantees. Missing data range from 4 to 27 across items.

The OHI grantees described two main purposes for these partnerships: (1) to increase the partners' knowledge of oral health and engage them in advocacy focused on oral health access issues and (2) to engage partners that provided in-kind donations. To inform the greater community about oral health, dental hygienists and other grantee staff conducted trainings and outreach to community partner staff. The trainings were designed to educate staff at these organizations about the oral health needs of young children and pregnant women, provide them with the information they needed to conduct oral health screenings and educate the families they serve about oral health, and encourage them to refer families to dental providers for care. Ultimately, these outreach efforts were designed to engage these stakeholders in oral health related issues to encourage them to participate in advocacy efforts related to oral health. Some of the partnership agencies printed oral health tips gained from

the OHI trainings in their newsletters and also included advertisements about the availability of OHI trainings to community child care professionals and dental providers. Grantees developed other partnerships in order to receive in-kind donations and provided oral health supplies, such as toothbrushes, floss, and toothpaste. Grantees reported that these donations were usually given to grantees on an on-going basis.

Other grantees formed partnerships to facilitate special events and trainings. These partnerships were often short in duration. For example, some grantees partnered with libraries to coordinate community-based events that combined oral health and literacy; one grantee partnered with a local agency to conduct a one-time, intensive training event for pediatricians and family practice physicians on oral health care for children. Some grantees formed community partnerships with local colleges and universities for the sole purpose of providing oral health education to Head Start parents. One grantee even recruited local high school students to perform skits for children about what to expect when visiting the dentist.

Grantees reported that nearly three-quarters (69 percent) of their OHI partnerships were in existence prior to the OHI grant (see Table II.7). Grantees that already formed partnerships with dentists, WIC clinics, and public health departments reported expanding these partnerships to include new activities under OHI. During telephone interviews, approximately 30 percent of grantees reported continuing or expanding their work with previously existing oral health coalitions or task forces in the community. Nevertheless, nearly half the grantees (43 percent) formed new partnerships for OHI. Grantees also reported having formal, written partnership agreements in place with 25 percent of their OHI partners.

According to record-keeping system data, between February 1, 2007, and January 31, 2008, one-fifth of partnerships ended (not shown). During the 16 site visits, grantees described the main reasons that this occurred: (1) partnerships were set up to be temporary and were formed only for the purpose of a one-time event; (2) the target population served by partners, such as migrant families, dropped considerably during the partnership, rendering it unnecessary; and (3) dental providers retired or relocated.

Strategies for Developing Partnerships

During site visits, the research team asked the 16 OHI grantees to describe the strategies they used to recruit and retain partnerships, especially partnerships with dental providers. Grantees reported that OHI grant funds allowed them to dedicate staff time to recruiting, developing, and maintaining community partnerships. They described the main strategies they used to identify these partners:

- Researching agencies with goals similar to their own, and contacting them about forming a partnership, either through personal visits or telephone calls or by mail

- Soliciting suggestions for potential partners from members of Head Start Health Advisory Committees

- Mailing surveys to local dental providers about their willingness to volunteer their time and services, donate supplies, and accept referrals for families on Medicaid

- Approaching providers at dental fairs and other community-based public health events

- Identifying providers at professional oral health care meetings, such as dental hygienist association meetings

- Contacting friends and contacts in the dental field

Once partners were identified, grantees used a variety of strategies to recruit and retain community partners for OHI. Across grantees that participated in site visits, the five main strategies reported included (1) providing transportation to dental appointments and other support services for families to avoid missed appointments; (2) providing payment for dental services through enhanced reimbursements to adjust for low-reimbursement rates providers receive through public insurance; (3) offering continuing education units (CEUs) for providers who participated in the OHI training; (4) providing free or low-cost supplies, such as fluoride varnish and surgical gloves, to providers that provide on-site services; and (5) offering community-based learning experiences for students of dentistry, dental hygiene, public health, and social work.

> "I presented to them [nurse practitioner students] that one of the important things in pediatrics is that you do good oral exams. That the mouth is just as important is listening to the heart or the lungs, and one of the ways you learn the norms is repetition. And they've seen enough teeth now, and done enough exams that they know to look for teeth that are at high risk for cavities."
>
> --Community partner

Community partner staff members interviewed during site visits described their reasoning for partnering with the grantees on OHI.[13] Some community partners reported that they were eager to work with the grantees because of the potential to increase awareness about oral health in Head Start and the broader community. For other partners, OHI was an opportunity to extend their services to the Head Start community. Staff from professional dental and dental hygiene schools reported that OHI increased their students' access to working with low-income Head Start families and children, which taught them about the public health needs of their communities.

Dental providers from some community partners reported, however, that they were initially reluctant to partner with Head Start at first because they were inexperienced with serving young children, were hesitant to accept a large number of Medicaid patients, or were

[13]As described in Chapter I, the research team interviewed 45 community partner staff from 41 different community partner organizations during site visits to 16 grantees. One average, two to three community partners were interviewed at each grantee.

concerned about missed appointments. However, many providers were convinced of the importance of their role in improving oral health care for underserved populations after speaking with or being trained by the grantees' lead OHI staff. Head Start staff educated providers on the immense need for care among many Head Start children and on methods for treating young children, such as how to conduct knee to knee exams and address children's behavior during services.[14] Community partner staff also reported that the efforts made by the OHI grantees to support families in making and keeping appointments made the partnerships more attractive to them.

Partnership Successes and Challenges

> "The partnership is a win-win situation because both programs benefit from this relationship."
>
> --Community partner

During telephone interviews, nearly all grantee staff expressed overall satisfaction with their OHI partnerships. About 42 percent reported that community partnerships developed for OHI had resulted in increased access to oral health care for Head Start children. Some grantees said their increased coordination with partners led to earlier identification of children with urgent dental needs and more rapid care for these children because providers were accessible to treat them. About 15 percent noted that forming partnerships for OHI increased the number of oral health care providers they worked with or added new members to advisory committees and oral health coalitions. A few grantees noted that OHI partners improved their capacity to provide culturally competent services and linguistically appropriate materials to families.

Community partner staff members interviewed during the site visits similarly described the partnerships as successful and nearly all said they expected the partnerships to continue after OHI grant funding ended. Community partner staff described four main successes of the partnerships including: (1) they were able to prioritize treatment to children with the most urgent dental needs, (2) they were more responsive to the oral health needs of low-income families, (3) both agencies benefited from the partnerships because Head Start children were receiving services and providers were gaining experience treating young children and underserved populations, and (4) the communities they worked in benefited because more children, families, providers, and other stakeholders were aware of the importance of oral health.

During site visits some grantees, however, reported that partnerships had not gone as planned. Grantees reported that despite activities and outreach implemented through OHI, it remained difficult to identify dental providers to form partnerships with in their communities. Many communities had limited numbers of providers and those providers that did serve the community often had long waiting lists for new patients and many were hesitant to accept Medicaid and to serve young children. Another challenge that grantees

[14]Knee to knee clinical exams are a method used by dental professionals to conduct exams of infants and hildren under age 3. The provider and parent (or another adult) sit knee to knee and the child is laid on their laps with his or her head in the providers lap.

continued to face was finding bilingual providers. As a result, Head Start staff members would accompany families to appointments to interpret or would arrange for interpreters to accompany families. However, grantee staff reported that families' conversations with providers were inhibited because they could not communicate directly.

A few grantees reported having conflicts with community partners resulting from differences of opinion about appropriate oral health practices or with partners that refused treatment to families. Additionally some grantees whose partners were brought in to train staff reported that although the trainings were seen as helpful by grantee staff, the trainings were sometimes time consuming to arrange, plan, and attend. To address this challenge, grantees encouraged partners to tailor trainings so that they were informative but efficient. Another challenge reported by grantees occurred when a community partner faced budget constraints, which often limited its ability to fulfill the partnership agreement to Head Start.

Most grantees attributed their greatest challenges related to partnerships to the turnover of the key staff members they worked with at community partner organizations. Grantees described turnover as a major challenge because they had to begin the partnership and education again when new staff members were appointed to work with them. Grantees said they found themselves constantly retraining and reestablishing relationships because of staff turnover.

Lessons Learned

During site visits, community partner and grantee staff described the lessons they learned through their partnerships on OHI and provided advice to other agencies planning to implement a similar initiative. In particular, grantee staff provided guidance about the strategies they felt were most important to developing and maintaining successful partnerships:

- Forming partnerships required a lot of "leg work" on the part of grantee staff, but face-to-face meetings and interaction were instrumental in forming partnerships.

- Continual communication with community partners was essential, as well as keeping meeting minutes, creating a listserv of key staff members working on OHI, and remaining organized.

- Once partnerships were formed, it was necessary to develop relationships and then to take the time to nurture those relationships.

The research team asked community partner staff during site visit interviews to describe the lessons they learned about forming successful partnerships with Head Start. According to community partner staff, partnerships were most successful when three main components were in place:

> "It's really important to have one person dedicated to the program, and he's been a large reason for the success of the program."
>
> --Community partner

1. There was a point person at Head Start to serve as a liaison between the partner and the grantee.
2. Both agencies understood and respected each other's missions and target populations.
3. Both agencies engaged families to learn about their needs and educate them about the oral health needs of their children.

CHAPTER III

DELIVERY OF SERVICES

The Oral Health Initiative (OHI) grantees reported that activities and services implemented through the initiative enhanced their ability to meet Head Start Program Performance Standards on oral health and to expand the scope and intensity of the oral health services they offered. This chapter describes the activities and services grantees provided to Head Start children, their families, pregnant women, and the broader community across six major categories: (1) outreach activities; (2) oral health education for parents, children, and pregnant women; (3) establishment of dental homes for children and pregnant women; (4) preventive dental care and treatment services; (5) support services; and (6) distribution of dental hygiene supplies. Information in this chapter is primarily drawn from the record-keeping system and site visits with 16 grantees. Information collected from all grantees during the telephone interviews is also included.

OUTREACH ACTIVITIES

The OHI grantees reported significant barriers that hindered families' abilities to access oral health care in their communities. During telephone interviews, more than 80 percent of the grantees described a shortage of dental providers available to serve Head Start children and families, and many reported a lack of knowledge about pediatric and perinatal oral health needs among community service providers. The communities in which grantees were located offered only limited resources to help make care more affordable and accessible to uninsured and underinsured families. As discussed in Chapter II, grantees considered the community partnerships they formed critical to addressing these barriers. According to grantees, outreach and networking activities were key to the formation of these partnerships. During site visits, grantees reported using two main types of outreach and networking strategies: (1) providing oral health education and training to providers and policymakers and (2) reaching out to the broader community.

Provider and Policymaker Oral Health Education and Training

During telephone interviews many grantees reported that both local agencies serving young children and their families and policymakers were unaware of the importance of oral health care for children and pregnant women and the high levels of untreated oral disease among low-income families. In a number of communities, grantees reported that some dental professionals had limited experience working with low-income populations. To increase awareness of the oral health needs of low-income families, grantees reported offering education and training to seven types of community partners: (1) dentists and dental hygienists; (2) pediatricians, family practice physicians, and obstetricians; (3) dental, dental hygiene, and nursing students; (4) child care professionals; (5) other service providers, such as staff at WIC clinics, homeless shelters, and domestic violence shelters; (6) staff at faith-based organizations; and (7) health officials and policymakers, such as state dental directors or members of the state legislature.

During site visits, grantees commonly reported efforts to raise awareness of the importance of oral health in young children and pregnant women and the needs of Head Start families by presenting at forums in the community, sharing information with community partners, and collaborating with local and state initiatives. The OHI grantees assigned staff, often OHI or health coordinators, to participate in community forums related to oral health, including oral health coalitions, maternal and child health planning groups, and professional association meetings. In addition, grantees encouraged community partners to increase access to oral health education and services by disseminating information to the families they served. For example, grantees worked with local hospitals serving postnatal women to integrate information on oral health into the health information that new mothers received. Grantees also collaborated with local and state programs that provided education and training to pediatricians on how to conduct oral health screenings, assess the oral health status of children, and refer them to dental providers for followup.

In addition, many grantees engaged in more direct outreach through telephone calls, invitations to forums, and requests for face-to-face meetings. The main goals of these outreach efforts were to encourage:

- More dentists to participate in Medicaid/SCHIP and to accept new publicly insured patients;
- More general dentists to serve young children;
- A greater level of communication and coordination between dentists and pediatricians;
- Medical providers to conduct oral health screenings, fluoride varnishes, and anticipatory guidance for parents during well-baby/child checkups; and
- Greater implementation of the recommendations of the American Academy of Pediatrics (AAP) regarding the timing of a child's first dental visit by age 1.

Community-Focused Oral Health Education and Care

During site visits, a few grantees reported extending oral health education, distribution of oral hygiene supplies, and the dental services that were provided to Head Start children and families to the broader community. These activities were primarily conducted during special events such as:

- Presentations to residents at local homeless shelters about oral health problems commonly experienced by adults, including dental caries, periodontal disease, and oral cancers;
- Workshops at local maternity clinics on oral health problems commonly experienced during pregnancy;
- Parent trainings, in-classroom education, and fluoride varnish applications at preschools and elementary schools; and
- Community-based dental fairs and dental clinic days at which local dental professionals offered exams, cleanings, and basic treatment services to children.

ORAL HEALTH EDUCATION

The OHI grantees emphasized the need to educate Head Start families about the importance of oral health and the potentially devastating consequences of untreated oral disease. During telephone interviews, grantees reported that they offered training to parents and pregnant women on how to care for children's teeth and gums and how to teach their children proper oral hygiene habits. They also educated children on how to care for their teeth and what to expect during visits to the dentist. This section describes the oral health education grantees provided to parents, pregnant women, and children.

Education for Parents

According to program record-keeping system data, nearly all grantees (92 percent) provided some form of oral health education for parents between February 2007 and January 2008 (Table III.1). During telephone interviews, grantees described the main topics they addressed through parent education, the ways they tailored education to the experiences and characteristics of parents, and their approaches to educating parents. The six most common messages on oral health delivered to parents reported by grantees during telephone interviews were (1) the importance of children's oral health to development and systemic health; (2) causes of oral disease and emphasis on their infectious nature; (3) early detection of oral health problems through visual inspection, such as the "Lift the Lip" method; (4) what to expect at the dental office; (5) oral hygiene instruction; and (6) the importance of oral health prevention for the entire family.

Grantees also reported during telephone interviews that they tailored oral health education messages to characteristics of each parent audience. In programs that served large Hispanic and Latino populations, grantees commonly mentioned distributing materials

written in Spanish, offering separate Spanish-only educational sessions, or having bilingual staff or professional interpreters present at sessions to provide simultaneous interpretation in Spanish. All grantees indicated tailoring written information to the reading level of parents to make it easier for them to understand.

Ninety-two percent of grantees offered training to parents through workshops, during home visits, and through materials sent home to parents. (see Table III.1).[15] For many grantees, monthly parent meetings at Head Start centers were the primary forum for delivering oral health messages. At some programs, particularly in communities in which parents had limited access to transportation, grantees offered incentives to promote attendance, including refreshments and meals, oral hygiene supplies, and gift cards or certificates.

Sample Topics Presented by an OHI Grantee at Monthly Parent Workshops on Oral Health

Month	Topic
September	Orientation on the OHI project
October	Promoting Awareness, Preventing Pain: Facts on Early Childhood Caries
November	Oral Health and Learning
December	Oral Health for Children with Special Health Care Needs
January	Community Partners
February	Strategies for Improving the Oral Health System in Our Communities
March	Child and Adolescent Oral Health Issues
April	Oral Health in Women
May	Sharing Parents' Success in OHI

The amount of meeting time spent on oral health content and the frequency of parent meetings and workshops that focused on oral health varied widely across programs. During telephone interviews, some grantees reported offering a small amount of oral health information at each parent meeting, such as providing instruction on proper flossing techniques for young children or reviewing an oral health worksheet. Others reported dedicating entire meetings to comprehensive oral health presentations. Parent education was also delivered through special workshops offered annually or intermittently (17 percent); a few of these grantees offered a series of oral health workshops (see box for sample topics presented at monthly workshops).

Home visits accounted for the second most common forum for delivering oral health education; 83 percent of grantees offered home visits on oral health to some families at least one month (see Table III.1). In programs with a home-based option (56 percent of OHI grantees), grantees indicated that home visits afforded an opportunity to individualize oral health education to the specific needs of each family. Grantees often selected oral health topics to address the results of risk assessments or observations of a family's oral health–related risk behaviors. Grantees implementing the home-based option conducted weekly visits, and most reported offering a full oral health education presentation during home visits once to several times per year. Many center-based grantees reported integrating oral health education into annual home visits conducted by family service workers.

[15]Workshops include parent meetings, trainings, and other events.

Table III.1. Oral Health Education Offered to Parents and Children

	Percentage of Grantees
Education Offered to Parents	
Offered Parent Education at Least Once	92
Number of Months Grantees Offered Parent Education Through Workshops	
0	12
1–3	42
4–6	21
7–9	23
10–12	2
Number of Months Grantees Offered Parent Education During Home Visits	
0	17
1–3	23
4–6	19
7–9	25
10–12	16
Number of Months Parent Education Offered Through Written Materials Sent Home with Children	
0	19
1–3	19
4–6	18
7–9	29
10–12	15
Education Offered to Children	
Offered Education for Children at Least Once	87
Number of Months Grantees Offered Education to Children in Classrooms	
0	14
1–3	17
4–6	23
7–9	21
10–12	25
Number of Months Grantees Offered Education to Children During Home Visits	
0	37
1–3	17
4–6	13
7–9	21
10–12	12

Source: Record-keeping system data from 52 grantees, Februrary 1, 2007 to January 31, 2008.

Note: N = 52 grantees. Missing range from 0 to 5 across items.

In the telephone interviews, eighty-one percent of grantees reported sending oral health education materials home to parents (see Table III.1). Many grantees reported sending home written materials to reinforce information provided during parent training and classroom activities for children. During the site visits, grantees reported distributing the following types of written oral health education materials to parents:

- Copies of fact sheets or interactive activities downloaded from oral health–related websites;
- Handouts targeted to parents included in standard oral health curricula such as "Bright Futures, Bright Smiles" and "Cavity Free Kids";
- Articles on oral health topics included in parent newsletters; and
- Books on oral health such as *Healthy Smiles for Young Children* and *The Gross, Disgusting, and Totally Cool Mouth Book*.

During telephone interviews, grantees also reported educating parents about their children's oral health during on-site dental health service days and at dental appointments. These opportunities allowed the grantees to customize the information to the individual circumstances of families and the specific needs of their children. For example, dental hygienists showed parents what to look for when inspecting their children's mouths and pointed out areas of decay when parents were present during on-site oral health screenings.

Education for Pregnant Women

During telephone interviews, nearly half (46 percent) of grantees reported providing oral health education specifically tailored to pregnant women and new mothers (not shown). Education was most often delivered during home visits (63 percent) or during workshops or training sessions (32 percent). The content of the information was similar to that delivered to parents of enrolled children, but it emphasized messages specific to oral health during pregnancy and infant oral health, including:

- The appropriate timing of dental visits during pregnancy;
- The types of dental services that can safely be delivered during pregnancy;
- How hormonal changes during pregnancy can make women more susceptible to certain types of oral health problems, such as "pregnancy tumors";
- The relationship between periodontal disease and an increased risk for poor birth outcomes;
- The communicable nature of dental caries and the increased risk of transmitting oral bacteria to infants after birth;

- Oral health developmental milestones for infants; and
- Caring for an infant's mouth and healthy bottle preparation and feeding habits.

In addition, during site visits several grantees reported distributing oral health supplies to pregnant women to reinforce oral health messages. Supplies included xylitol gums and mints to keep oral bacterial levels low and to prevent the spread to infants and gauze or small cloth wipes to clean infants' gum and newly erupting teeth.

Education for Children

Eighty-seven percent of grantees provided oral health education to children during at least one month from February 2007 through January 2008; most provided education four months or more (see Table III.1). Almost all of these grantees reported providing this education in the Head Start classroom; two-thirds of grantees reported offering education to children during home visits. During telephone interviews, grantees described that the main educational messages for children were (1) how to care for their teeth, (2) what to expect during a dental visit, and (3) the role of healthy nutrition in oral health (see box).

During telephone interviews, 73 percent of grantees reported that teachers and home visitors provided oral health education to children. In addition, lead OHI staff and health managers in many sites traveled to classrooms and homes to conduct oral health educational sessions. These staff members typically visited classrooms or families' homes a couple of times a year to teach children about oral health. These visits frequently occurred in conjunction with dental services. For example, hygienists reported visiting classrooms a week or a few days before they were scheduled to conduct screenings and fluoride varnishes. These visits had three main objectives: (1) introduce the hygienists to the children, (2) present a lesson on oral health, and (3) demonstrate the service they would be providing to reduce children's fears.

Topics for Education on Oral Health

	Percentage of Grantees
How to care for teeth	48
What to expect during dental visits	29
Healthy nutrition	13

N = 52 grantees.

Grantees reported using a variety of materials and props to engage children in oral health topics. Lessons frequently included reading a book about caring for teeth or visiting the dentist. Staff used puppets with oversized teeth and toothbrushes to demonstrate toothbrushing techniques and had puppets of dentists available for children to play with to familiarize them with dental professionals' white coats and tools. Other grantees used models of teeth to demonstrate proper dental hygiene. Dramatic play centers helped familiarize children with the tools dentists and dental hygienists use, such as mirrors and flashlights. These play centers also contained other props, such as white coats, to allow children to become comfortable with the objects they would see at the dentist's office. One grantee even reported housing a dental chair in classrooms for children to sit in prior to a visit from a dentist.

Curricula Used for Oral Health Education

During telephone interviews, 65 percent of grantees reported using one or more oral health curricula. Rather than relying solely on one curriculum, most reported using components of one primary curriculum in combination with other curricula or resources to better tailor their oral health education to the children and families they served. In addition, during site visits grantees reported that many existing curricula did not provide enough information or activities on specific oral health topics; therefore, grantees supplemented them with handouts from the internet, books, videos, CDs, and props. These supplemental materials allowed them to deliver messages in diverse ways—through cartoons, songs, visual materials, and hands-on activities. Grantees reported using widely available curricula as well as curricula developed by state departments of health, local universities, and regional initiatives (see box).

Commonly Used Curricula

	Percentage of Grantees
"Bright Futures, Bright Smiles"	19
"Cavity Free Kids"	15
"Open Wide"	8
"Bright Futures in Practice"	6
University developed	4
State or county health department developed	13

N = 52 grantees.

Thirteen percent of grantees reported using OHI funds to develop a compilation of resources and materials on oral health (see box for an example). These grantees reported researching evidence-based curricula and resources, determining the curricula and resources most appropriate for the families they served, and compiling the materials and resources they found most useful. These materials and resources were used to train Head Start staff and parents and to create packets of information for Head Start teachers and family service workers.

Development of a New Children's Oral Health Curriculum

A major goal of one grantee's OHI program was to develop a culturally and linguistically appropriate oral health curriculum.. Materials included booklets and short films depicting cartoon characters acting out behaviors that both promote and harm oral health. A local university partner helped to create the materials in both English and Spanish.

During the site visits, all 16 grantees reported using a formal oral health education curriculum either in its entirety or by excerpting sections of particular interest. One grantee was collaborating with a local university to develop a new curriculum. These grantees preferred curricula that offered a wide variety of activities to maximize flexibility in planning oral health lessons. Teachers wanted many activities to choose from that were simple to implement and fun and engaging for the children. Early Head Start grantees sought curricula that addressed infant and toddler oral health, which staff said were less prevalent than those designed for preschool-aged children.

Dental Homes

Establishing a dental home is an important step in increasing access to care and implementing a schedule of routine preventive care and treatment for children and families (AAPD 2007).[16] Head Start Program Performance Standards require that Head Start grantees, in collaboration with parents, make a determination within 90 days of enrollment as to whether a child has an ongoing source of continuous, accessible health care, which includes dental health care. If a child does not have a source of ongoing dental care, grantees must assist the parents in accessing one.

According to program record-keeping system data, close to two-thirds of children and over one-third of pregnant women ever enrolled in the record-keeping system had an established dental home (Table III.2). Of these, 31 percent of children and 19 percent of pregnant women were identified as having an established dental home prior to enrolling in Head Start. During site visits, some grantees said that they encouraged families to establish dental homes and provided referral lists during Head Start registration. As a result, by enrollment some families had already established a dental home for their child. When Head Start helped enrolled children and pregnant women establish dental homes, most were established in the first three months following enrollment.

In many communities, however, finding dental homes for families was challenging because few dentists were willing to both serve young children and accept Medicaid. During telephone interviews, four percent of grantees described establishing dental homes for all Head Start families as unrealistic given the limited number of dental providers in their communities. Migrant/Seasonal Head Start grantees were more likely than other grantees to report limited opportunities to establish a dental home because of the high migration rate of families. These grantees explained that because many families are located in their service area for a limited amount of time each year, even families with established dental homes were likely to spend a significant part of the year away from these dental homes and with limited or no access to dental services. Grantees serving American Indian/Alaska Native families encountered difficulties as well, particularly with nontribal enrollees who were typically not eligible to receive dental services provided by the Indian Health Service.

The strategies that grantees reported using during telephone interviews to address these challenges included referral and tracking mechanisms, outreach to local dental providers and community partners, and educational activities geared toward the permanent integration of the dental home into Head Start curriculum and daily life. The most common strategy grantees employed to address the lack of a dental home at time of enrollment was referral to a dental provider. Head Start staff generally disseminated up-to-date lists of dentists who accepted Medicaid or were willing to provide services on a sliding scale, had bilingual staff, were conveniently located, and were willing to treat young children.

[16]The American Academy of Pediatric Dentistry (AAPD) defines a dental home as a source of continuous, accessible, comprehensive, family-centered, coordinated, compassionate, and culturally effective oral health care delivered or directed by a professional dentist (AAPD 2007).

Table III.2. Dental Home Status of Children and Pregnant Women

	Percentage of Children Enrolled During the 2007–8 Program Year	Percentage of Children Ever Enrolled	Percentage of Pregnant Women Enrolled During 2007–8 Program Year	Percentage of Pregnant Women Ever Enrolled
Participants with a Dental Home Established	55	57	23	33
Number of Months After Enrollment in Head Start Dental Home Established				
No dental home established	45	43	77	67
Had dental home prior to enrollment in Head Start	30	31	16	19
0–3 months	17	18	6	11
4–6 months	4	4	1	2
7–9 months	1	1	0	0
More than 9 months	3	3	0	1
Number of Participants	**8,909**	**14,611**	**156**	**285**

Source: Record-keeping system data from 52 grantees, February 1, 2007 to January 31, 2008.

Note: Missing data range from 1 to 93 across items because data entry was incomplete.

The OHI grantees did not act alone in their efforts to establish and promote dental homes for families: during the site visits, a number of programs identified local clinics, private dentists, and pediatricians that served as community partners and collaborators. Some grantees reported developing written agreements with a number of local dentists who would give priority to Head Start children and, often, other family members.

Nearly all grantees reported using databases, such as ChildPlus and Head Start Family Information System (HSFIS), to record information about children's dental homes. Grantees used a variety of methods, however, to determine which children had dental homes. For example, some grantees required that each parent collect a signed letter from the child's dentist confirming the establishment of a dental home; others contacted dentist offices directly to ask if they served any children enrolled in Head Start. Many grantees that arranged for dentists to come to Head Start centers said that they considered these dentists the dental homes for all of the children that received an exam.

PREVENTIVE AND TREATMENT SERVICES

The provision of dental care plays an important role in preventing and more effectively managing early childhood caries and other oral health problems. In addition, oral health screenings can help detect early signs of disease and ensure that children receive an

appropriate level of care based on their unique risk profiles. As discussed in Chapter II, meeting these requirements is difficult for many Head Start programs. The OHI grantees implemented service delivery strategies to overcome barriers to care and ultimately to increase the number of children and pregnant women receiving preventive dental care and treatment.

This section describes grantees' strategies for providing or assisting families in receiving risk assessments, preventive services, and treatment services. It also describes the types of support services grantees offered to families.

Risk Assessments

Oral health risk assessments can be used to identify individuals with a high predisposition to developing oral health problems, such as dental caries or periodontal disease. Risk-assessment recommendations for Head Start children and pregnant women include identifying previous caries experience, pre-cavity lesions, and visible plaque, as well as perceived risk as determined by examiners (Kanellis 2000). Additional guidelines established by the American Academy of Pediatrics (2003) recommend that risk assessments include questions on dietary practices, fluoride exposure, oral hygiene, utilization of dental services, and the presence of previous dental work. During the telephone interviews, more than 90 percent of grantees reported that they either directly conducted risk assessments (reported by 63 percent of grantees) or referred children and pregnant women to community providers for a risk assessment (31 percent).

During the site visits, grantees most often reported that risk assessments took place upon children's entry into the program. However, several grantees said they readministered risk assessments to parents once or twice throughout the year to reassess oral health risk levels and to determine if improvements had been made in oral health attitudes, knowledge, or behaviors. Grantees reported using one of two major strategies for conducting oral health risk assessments: (1) use of a risk-assessment tool designed specifically for oral health or (2) integration of oral health indicators into overall health and nutrition risk assessments. Grantees using a formal risk-assessment tool reported using either the Caries–Risk Assessment Tool (CAT) developed by the AAPD or a tool developed by another public or private entity such as state departments of health. Regardless of the specific assessment tool they used, most grantees described oral health screenings and dental exams as an important component of their overall risk-assessment process.

The results of risk assessments were used by many grantees to group children and pregnant women into risk categories. Grantees using the Association of State and Territorial Dental Directors' (ASTDD) Basic Screening Survey, for example, explained that results were used to put clients into three discrete categories based on treatment urgency: (1) urgent care—child needs emergency care by a dentist within 24 hours, (2) early dental care—child needs urgent care by a dentist within two weeks, and (3) no obvious problem—child needs routine dental care at next regularly scheduled appointment. Other grantees reported that they did not explicitly classify children into discrete groups, but they did make referrals based on the needs identified in risk assessments.

Preventive and Treatment Services for Children and Pregnant Women

Grantees implemented a range of strategies to obtain preventive services and needed follow-up treatments for Head Start children and pregnant women. These strategies included direct provision of services, referrals for services, and a combination of the two. During telephone interviews, most grantees (77 percent) reported providing some preventive services such as oral health screenings and fluoride varnishes; nearly all grantees (92 percent) referred children and pregnant women to dental professionals for treatment services. Despite their efforts, grantees reported ongoing challenges associated with arranging and delivering dental services to children and pregnant women. For example, staff described having difficulties completing dental exams and delivering fluoride varnish applications to all children, and arranging extensive restorative treatment for children and pregnant women. These challenges and grantees' strategies for addressing them are discussed in detail in Chapter IV.

This section describes (1) the levels of service received by children and pregnant women during the data collection period; (2) the characteristics of those services, such as the service providers and location of services; (3) the rate of services that required follow-up treatment; and (4) how services were paid for. Information in this section is drawn primarily from the record-keeping system and telephone interviews with all 52 OHI grantees.

Levels of service receipt. As described in Chapter I, grantees recorded the preventive and treatment services children and pregnant women received from February 1, 2007, through January 31, 2008 in the record keeping system.[17,18] Since most grantees operated on a nine-month program year beginning in the fall, the data collection period limited the research team's ability to track children's and pregnant women's service receipt during the course of an entire program year. Instead, the data presented include children and pregnant women who were enrolled in Head Start (1) during the 2006–7 program year only, (2) during the 2007–8 program year only, and (3) during both program years. Regardless of the period of time children and pregnant women were enrolled in Head Start, the service data recorded in the record-keeping system included services provided only from February 2007 (the second half of the 2006–7 program year) to January 2008 (the first half of the 2007–8 program year).[19]

[17]To reduce the burden of data entry, grantees serving more than 200 participants entered data on only 200 participants. MPR worked with grantees to select a purposive sample of centers or classrooms (usually one portion of their total Head Start service area) to include in the record-keeping system. Grantees were given significant leeway in selecting centers and classrooms but were asked to adhere to three criteria: (1) if the grantee served children in Early Head Start, some of these children had to be included; (2) if the grantee served pregnant women, some of these women had to be included; and (3) if more than a third of the grantee's caseload included families that speak a language other than English at home, some of these children had to be included. MPR also recommended that grantees select centers or classrooms in one geographic area for convenience.

[18]Data collection began after Office of Management and Budget (OMB) research clearance was received.

[19]To better understand how data collected through the record-keeping system compared to data collected by Head Start grantees for the Program Information Report (PIR), the research team analyzed PIR data from the 2006–7 program year for the OHI grantees and compared them to data collected through the record-

Fifty-four percent of children ever enrolled in the record-keeping system received at least one service between February 2007 and January 2008; 42 percent received more than one service (Table III.3).[20] For pregnant women ever enrolled, the rates were lower with 29 percent receiving one service and 22 percent receiving more than one service (Table III.4).

Of children enrolled and entered in the record-keeping system during the 2006-7 program year, 34 percent received at least one service and 25 percent received more than one service.[21] In the 2007–8 program year, 63 percent received at least one service and 50 percent received more than one service. For pregnant women, the rates of women that received services in 2007-8 were also higher than the rates of women receiving services in the 2006-7 program year.[22] The higher rates of service receipt among children and pregnant women enrolled in 2007–8 is consistent with grantees' reports during telephone interviews that they attempted to have all children seen by a dental provider within the first 90 days of enrollment in Head Start. Since most grantees operate according to a nine-month program year beginning in the fall, one would expect the rates of service receipt to be higher in the fall than the spring. In fact, record-keeping system data indicated that service delivery was highest in October 2007 (Figure III.1).

Record-keeping system data also showed that children enrolled in Head Start programs located in a primarily rural or a mixed urban-rural service area were more likely to receive a dental screening or exam than were children enrolled in grantees located in primarily urban areas (Appendix C, Table C.3).[23] Grantees in rural areas were more likely to report shortages of dental providers and more limited access to care than were grantees in urban areas where care was often more accessible. However, to address shortages of providers, grantees in rural areas more often partnered with dental providers to provide on-site services at Head Start centers, including dental screenings and exams. In urban areas, grantees were more likely to report referring children and families to local providers for services. Prevalence of the provision of on-site services in rural program may account for the higher rates of screening and exams compared to those for programs in urban areas, since program staff could better assure that children received services on site.

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keeping system. Since PIR data included services provided prior to February 2007, the rates of children receiving dental exams and other services were higher than the rates recorded in the record-keeping system. Detailed information about this analysis is included in Appendix C.

[20]These data include all children and pregnant women enrolled in the record-keeping system since February 1, 2007, and therefore include enrollees who were tracked only during the last few months of the 2006–7 program year, others who were enrolled only during the first several months of the 2007–8 program year, and others who were enrolled for the entire data collection period (February 2007 through January 2008).

[21]These data include only children and pregnant women enrolled in the record-keeping system as of the end of May 2007 and therefore include enrollees who were tracked only during the last few months of the 2006-7 program year (February 1 through May 31, 2007).

[22]These data include only children and pregnant women enrolled in the record-keeping system at the end of the data collection period (January 31, 2008) and therefore include enrollees who were tracked only during the first several months of the 2007–8 program year and others who were enrolled for the entire data collection period (February 2007 through January 2008).

[23]Subgroup data are reported for children only because the sample sizes for pregnant women were very small.

Table III.3. Treatment and Preventive Services Provided to Children

	Percentage of Children Enrolled in 2006-7 Program Year[a]	Percentage of Children Enrolled in 2007–8 Program Year[b]	Percentage of Children Enrolled Since February 2007[c]
Received at Least One Service	34	63	54
Received More Than One Service	25	50	42
Preventive Services			
Dental screening or exam	25	58	48
Cleaning	10	26	21
Any fluoride treatment	26	44	40
Xylitol wipes	2	4	3
Dental sealants	<1	<1	<1
Treatment Services			
Fillings (1–2)	2	5	4
Fillings (3 or more)	2	3	3
Extractions (1–2)	1	1	1
Extractions (3 or more)	<1	<1	<1
Steel crowns	<1	2	1
Root canal	<1	<1	<1
Bridge/dental implant	<1	<1	<1
Treatment requiring hospitalization and/or sedation	<1	1	1
Other	2	5	4
Number of Participants	**8,687**	**8,909**	**14,611**

Source: Record-keeping system data from 52 grantees, February 1, 2007, to January 31, 2008.

Note: Missing data range from 6 to 122 across items because data entry was incomplete.

[a]Includes children enrolled from February 1 to May 31, 2007.

[b]Includes children enrolled during the 2007–8 program year through January 31, 2008.

[c]Includes children enrolled since February 1, 2007.

Table III.4. Treatment and Preventive Services Provided to Pregnant Women

	Percentage of Pregnant Women Enrolled in 2006-7 Program Year[a]	Percentage of Pregnant Women Enrolled in 2007–8 Program Year[b]	Percentage of Pregnant Women Enrolled Since February 2007[c]
Received at Least One Service	17	28	29
Received More Than One Service	13	22	22
Preventive Services			
Dental screening or exam	16	21	25
Cleaning	7	14	14
Any fluoride treatment	6	12	11
Xylitol wipes	0	3	2
Dental sealants	0	0	0
Treatment Services			
Fillings (1–2)	4	1	4
Fillings (3 or more)	1	2	3
Extractions (1–2)	1	2	2
Extractions (3 or more)	0	1	<1
Steel crowns	1	0	1
Root canal	1	0	1
Bridge/dental implant	0	0	0
Treatment requiring hospitalization and/or sedation	0	0	0
Other	1	8	6
Number of Participants	**168**	**156**	**285**

Source: Record-keeping system data from 52 grantees, February 1, 2007, to January 31, 2008.

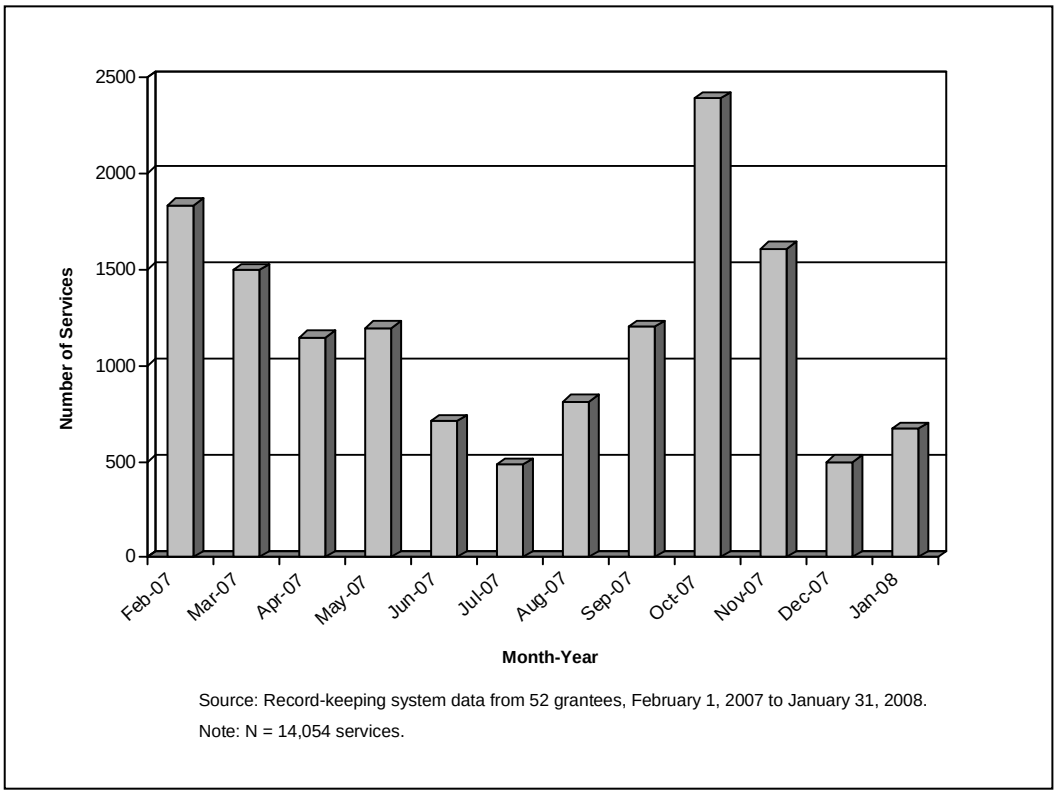
Note: Missing data range from 6 to 122 across items because data entry was incomplete.

[a]Includes pregnant women enrolled from February 1 to May 31, 2007.

[b]Includes pregnant women enrolled during the 2007–8 program year through January 31, 2008.

[c]Includes pregnant women enrolled since February 1, 2007.

Figure III.1 Treatment and Preventive Services, by Month[24]



Source: Record-keeping system data from 52 grantees, February 1, 2007 to January 31, 2008.

Note: N = 14,054 services.

Differences in service receipt were also observed between grantees that served fewer than 600 children and those that served 600 children or more. Children enrolled in smaller programs were more likely to receive a preventive or treatment service than were children enrolled in larger programs (Appendix C, Table C.4). This difference may reflect the need for larger grantees to identify more providers willing to serve Head Start children in their communities than smaller grantees need to do, as well as the ability of staff in smaller programs to focus more intensively on following up with individual children and families.

The research team analyzed the service data by state rules regarding the functions dental hygienists are allowed to carry out, the required supervision levels (permitted to practice unsupervised, must be under direct supervision of a dentist, or undefined), and whether or not dental hygienists can be directly reimbursed by Medicaid. The analysis did not suggest

[24]As described previously, grantees recorded the preventive and treatment services children and pregnant women received from February 1, 2007, through January 31, 2008 in the record keeping system. Since most grantees operated on a nine-month program year beginning in the fall, the data collection period limited the research team's ability to track children's and pregnant women's service receipt during the course of an entire program year. Instead, the data presented include children and pregnant women who were enrolled in Head Start (1) during the 2006–7 program year only, (2) during the 2007–8 program year only, and (3) during both program years. Regardless of the period of time children and pregnant women were enrolled in Head Start, the service data recorded in the record-keeping system included services provided only from February 2007 (the second half of the 2006–7 program year) to January 2008 (the first half of the 2007–8 program year).

meaningful differences among subgroups based on state rules regarding dental hygienists (not shown).

Types of Services. Across all grantees, the most common services children received were dental screenings and exams.[25] Children enrolled in the record-keeping system in the 2007-8 program year received exams more often than those enrolled during the 2006-7 program year (58 percent and 25 percent, respectively; see Table III.3). As discussed above, this is consistent with grantees' efforts to have all children examined by a dental provider in the first half of the program year. Children also commonly received fluoride treatments, including fluoride varnishes and supplements (26 percent of children enrolled in the 2006-7 program year; 44 percent of children enrolled in the 2007-8 program year; 40 percent of children ever enrolled). Twenty-five percent of pregnant women ever enrolled in the record-keeping system received dental exams or screenings; 14 percent received dental cleanings (Table III.4). Far fewer children and pregnant women received treatment services, but of those who did, most received fillings.[26]

Service Providers. Services were delivered by a variety of providers, most often by a community partner (58 percent of all services; Table III.5). Dental hygienists on staff or under contract to grantees provided one-fifth of preventive services. Typically, these hygienists were under the supervision of a dentist; many of these dentists were also community partners or within the network of dentists serving Head Start children. Other grantees contracted with private dental hygienists, partnered with dental hygienist schools, or worked with dental hygienists who volunteered their time.

Location of Services. The primary location at which children and pregnant women received services varied by type of service, but nearly all services were provided either at the grantee site or at a provider office (see Table III.5). Most preventive services were conducted at the grantee site; in contrast, treatment services more commonly were delivered at provider offices. Models for providing services on site included having dental hygienists or dentists conduct services in classrooms or arranging for dental providers to offer on-site clinic days when families could make appointments for their children. A few grantees reported partnering with organizations that operate mobile dental vans that would visit various Head Start centers or other community locations to offer services to children. To support on-site services, grantees used OHI funds to purchase portable dental equipment and other supplies.

Followup on Needed Treatment. Followup was required for about one-quarter of all services in the record-keeping system, but the rate varied by the type of service received (see Table III.5). Followup was required much more frequently for children and pregnant women who received treatment services (51 percent of services) than for those who received

[25]During telephone interviews, grantees reported varying definitions of what constituted a dental exam as compared to a dental screening. To address these varying definitions, these data were combined to include any child or pregnant woman who received an exam and/or a screening.

[26]The record-keeping system did not collect information on the number of enrollees that required treatment, but it is likely that many children and pregnant women did not need treatment.

Table III.5. Characteristics of Preventive and Treatment Services[a]

	Percentage of Records with Preventive Services Only[b]	Percentage of Records with Treatment Services Only[c]	Percentage of Records with Both Preventive and Treatment Services[d]	Percentage of Total Services
Referred for Service by Grantee	60	65	59	60
Provider of Service				
Grantee: health specialist	4	2	<1	4
Grantee: dental hygienist	21	7	5	19
Grantee: other	2	10	<1	3
Community partner	56	63	69	58
Other community provider	16	19	24	17
Location of Service				
Grantee site	56	17	11	49
Service provider office	36	69	71	41
Hospital	1	5	4	1
Home	3	5	5	3
Mobile van or clinic	2	<1	8	2
Other	3	3	2	3
Support Services Provided	35	58	45	38
Type of Support Services Provided[d]				
Help making appointment	61	61	54	61
Transportation	14	25	26	16
Translation	16	13	17	16
Other	49	45	50	48
Provider of Support Services				
Grantee: health specialist	44	45	36	44
Grantee: dental hygienist	7	10	4	7
Grantee: other	42	38	51	42
Community partner	5	6	7	5
Other community provider	2	1	1	2
Follow-Up Service Required	23	51	47	27
If Followup Required, Status of Followup				
Referral made	31	12	12	25
Appointment pending	50	54	63	53
Followup complete	20	34	25	22

	Percentage of Records with Preventive Services Only[b]	Percentage of Records with Treatment Services Only[c]	Percentage of Records with Both Preventive and Treatment Services[d]	Percentage of Total Services
If Followup Complete, Number of Months Between Service Date and Date Followup Completed				
0–2 months	83	96	93	87
3–4 months	13	1	4	9
Greater than 4 months	5	2	3	4
Number of Service Records	**10,723**	**968**	**1,033**	**12,724**

Source: Record-keeping system data from 52 grantees, February 1, 2007, to January 31, 2008.

Note: Missing data range from 4 to 527 across items because data entry was incomplete.

[a]The research team instructed the OHI grantees to create a new service record each time an enrollee received dental care. During a single point of care, an enrollee could receive more than one service. For example, a child might receive a dental exam (a preventive service) and a filling (a treatment service). As a result, some service records included both treatment and preventive services.

[b]Preventive services include dental screenings, clinical exams, cleaning, fluoride rinse, fluoride varnish treatment, fluoride tablets prescribed, xylitol wipes, and root planning and scaling (preventive).

[c]Treatment services include fillings, extractions, steel crowns, root canal, bridge/dental implant, root planing and scaling (therapeutic), and treatment requiring hospitalization and/or sedation.

[d]Because the record-keeping system allows users to select more than one type of service per record, some records included both preventive and treatment services.

[e]Does not add up to 100 percent because more than one support service could be selected.

preventive services (23 percent).[27] This finding is consistent with grantees' reports during telephone interviews that children with decay often required multiple fillings or treatments to address their needs. Followup was completed for 22 percent of all services requiring followup. For the majority of follow-up services, appointments were pending. This status likely reflects the timing of data collection, since many children who were identified as needing follow-up treatment at the beginning of the program year would not have completed treatment by the end of January 2008.

Service Referrals. According to record-keeping system data, grantees referred children and pregnant women for about 60 percent of the oral health services recorded (see Table III.5). During telephone interviews, nearly all grantees (94 percent) reported having a system in place for referring families to dental providers. Grantees usually maintained lists of providers who were willing to serve Head Start families. As needed, programs would share their lists with families. When making referrals, grantees stressed the importance of finding providers who could work with families' characteristics and needs. These factors included ensuring that providers accepted families' insurance coverage; were in convenient locations; and, when needed, provided culturally and linguistically appropriate services, such as having staff or interpreters available for families that spoke a language other than English.

Paying for Services. During telephone interviews, staff described four main approaches to covering the costs of services: (1) billing Medicaid or another insurance provider; (2) receiving in-kind donations of dental professional time; (3) using OHI funds for materials, supplies, and equipment; and (4) using OHI or Head Start funds for services. The cost of treatment services was almost always covered by health insurance, including Medicaid, SCHIP, and Indian Health Services, or paid for using regular Head Start funds for families without oral health insurance coverage. Some granteess reported using OHI funds as additional funding or backup funding. Few grantees reported using OHI funds as a primary source of funding for oral health services.

Preventive and Treatment Services for Parents

During telephone interviews, 15 percent of grantees reported that they helped parents and other adults in the household gain access to preventive services by providing a list of community dental offices, writing referrals to specific providers, or even helping to cover the cost of dental care for uninsured parents. Grantees reported, however, that arranging dental care for adults was more challenging than it was for children because many parents lacked dental coverage or the coverage they had did not cover all needed services. Grantees often tried to identify dental providers who offered sliding fee scales for uninsured patients or would be willing to donate their time to provide services to adults. During site visits, 2 of the 16 grantees reported using OHI or Head Start program funds to help uninsured or

[27]Preventive services include dental screenings, clinical exams, cleaning, fluoride rinse, fluoride varnish treatment, xylitol wipes, and root planning and scaling. Treatment services include fillings, extractions, steel crowns, root canal, bridge/dental implant, root planing and scaling (therapeutic), and treatment requiring hospitalization and/or sedation.

underinsured adults cover the cost of their care. However, they explained that these funds were limited and were reserved for urgent dental care needs.

SUPPORT SERVICES

To facilitate the provision of preventive and treatment services, grantees reported providing a range of support services. Nearly 40 percent of the dental preventive and treatment services recorded in the record-keeping system included support services (see Table III.5). Grantee health specialists were typically responsible for providing or arranging these services (44 percent of all services). Other grantee staff, such as family service workers and home visitors, also assisted with providing support services to families.

The types of support services grantees provided included assisting families make appointments (61 percent of all services; Table III.4), transportation (16 percent), and interpretation services for families that spoke a language other than English (16 percent). During telephone interviews, grantees described two other support services they frequently offered families: (1) sending out reminder notices or making reminder calls to families about appointments (reported by 21 percent of grantees) and (2) accompanying families to appointments (reported by 10 percent of grantees). On a more limited basis, grantees reported reimbursing families for the cost of child care during appointments and providing funding to cover the costs of travel and lodging for overnight stays. Grantees also reported helping families access services available through providers, such as shuttle services for Medicaid clients and interpreters.

Case Management

As described earlier in this chapter, grantees worked extensively with parents to ensure that children received the dental care they needed. Grantees offered on-site services, referrals for families to community dental providers, and a variety of services to support parents in their efforts to make and keep appointments. Coordinating these services and keeping track of the services children needed required grantees to implement and maintain case management systems. During site visits with 16 OHI grantees, the research team explored the ways grantees carried out case management.

According to staff from the grantees that participated in the site visits, most grantees relied on existing case management systems. Grantees described centralized systems in which health coordinators or other management staff tracked the status of children's health services, including oral health services. Grantees that created a new staff position through OHI often designated these duties to OHI lead staff. Some grantees distributed forms to parents that dental providers were asked to complete detailing the care children received. Eight grantees reported communicating directly with providers to obtain needed tracking information. Once information was received, grantees tracked service data centrally. Using databases, such as ChildPlus and the Head Start Family Information System (HSFIS), grantees were able to identify children who were due for dental exams or required follow-up treatment. Health coordinators would then inform home visitors, classroom teachers, and family service workers of children who needed care. These staff would then follow up with

parents to encourage them to make dental appointments and would arrange needed support services. Health coordinators, lead OHI staff, and other management staff were available to assist when families were unresponsive or reluctant to follow up with care. Grantees reported that typically a small percentage of parents needed more intensive followup. In these cases, however, staff would contact unresponsive or reluctant parents directly to encourage them to get their children the care they needed. During their conversations with parents, staff would try to determine the reasons behind why parents were not seeking out the needed services and then work to address these issues. For example, staff reported that some parents were fearful of the dentist or were worried that services would not be covered by insurance. To address these concerns, Head Start staff would offer to accompany parents to the appointments and to assist them if costs were prohibitive.

Grantees that added a new staff position through OHI reported that the new staff position increased their case management capacity. These staff members often took over data entry responsibilities, followed up with parents who had not submitted required paperwork, and worked with dentists to establish systems for sharing information that were efficient and convenient for both the providers and the Head Start programs.

ORAL HYGIENE SUPPLIES

The OHI grantees distributed oral hygiene supplies to families to reinforce educational messages and to ensure that they had the tools needed to engage in appropriate dental hygiene. According to record-keeping system data, 90 percent of grantees distributed supplies to Head Start families between February 2007 and January 2008 (Table III.6). The supplies included toothbrushes, fluoride toothpaste, dental floss, timers, toothbrush covers, disclosing tablets that expose plaque on teeth, xylitol products, gauze and finger cloths for wiping infants' gums, and dental mirrors for parents to use to check children's teeth (see Table III.6). Head Start staff noted that supplies were well received by parents. Supplies were commonly distributed at parent meetings, training events, during home visits, or were sent home with children. Grantees often procured oral hygiene supplies with the support of community partners, local dental providers, dental societies, and manufacturers of dental hygiene supplies.

PARENT SATISFACTION WITH ORAL HEALTH EDUCATION AND SERVICES

The Head Start parents that participated in focus groups that were conducted during the site visits described the types of oral health services that they and their children received through Head Start, as well as their satisfaction with the services. During nearly all focus groups, parents described three services provided by Head Start: (1) education for parents, (2) clinical services, and (3) support services. This section provides parents' descriptions of the oral health services offered by Head Start and their satisfaction with these services.

Table III.6. Oral Hygiene Supplies Distributed to Families

	Percentage of Grantees
Distributed Oral Hygiene Supplies to Families at Least One Month	90
Types of Oral Hygiene Supplies Distributed to Families at Least One Month	
Toothbrushes	88
Fluoride toothpaste	87
Dental floss	75
Xylitol wipes	35
Xylitol gum	33
Fluoride rinse	12
Other supplies[a]	71

Source: Record-keeping system data from 52 grantees, February 1, 2007 to January 31, 2008.

Note: N = 52 grantees. Missing range from 0 to 1 across items due to incomplete data entry.

[a]During telephone interviews, grantees reported on the types of other supplies they distributed to families, including timers, toothbrush covers, disclosing tablets that expose plaque on teeth, xylitol products, gauze and finger cloths for wiping infants' gums, and dental mirrors for parents to use to check children's teeth.

> "The younger we teach our children how to take care of their teeth, the better. Education we [parents] receive can be passed on [to our kids]. That's what we're doing here by focusing on prevention, we're helping future generations."
>
> --Head Start parent

Some parents from each of the 16 Head Start programs that participated in site visits reported receiving training and information from Head Start related to oral health.[28] Parents reported receiving education on oral health from Head Start staff through written materials (such as handouts and newsletters) and during parent meetings, Policy Council meetings, training events, home visits, and dental appointments. During most focus groups, parents described learning about how to care for their children's teeth, including at what age children should see a dentist and begin brushing their teeth, how to clean infants' gums, and what foods promote oral health. Parents from fewer programs also reported learning how to inspect their child's mouth and teeth to look for signs of decay and injury. A few parents that spoke Spanish as their primary language described attending trainings that were conducted in Spanish and receiving materials in Spanish. Other parents reported that although they had not yet attended a training on oral health, they planned to do so later in the program year.[29]

[28]Not every parent that participated in the focus groups responded to every question. As a result, the research team describes the number of focus groups during which at least some parents reported information. Additional information about the methodology the research team used to conduct the focus groups is included in Appendix C.

[29]Focus groups were conducted in November and December 2007. The program year at all but two Migrant Seasonal Head Start grantees continued through Spring 2008.

During nearly all focus groups, at least some parents reported that their children had received dental exams, oral health screenings, and fluoride treatments. Parents from about one-third of programs reported that their children received preventive services at Head Start centers. Some parents also reported that their children required treatment services, including fillings, caps, and extractions, and parents typically said they brought their children to a dentist for these services. During many of the focus groups, parents reported that they were referred to dentists, public health clinics, and local hospitals by Head Start.

> "You can't do preventive dentistry when you have to wait six months for an appointment."
>
> -Head Start parent

Although most parents reported that they were able to get the dental care their children needed, some described barriers to care including (1) long waiting lists at dental clinics, (2) dentists that were unwilling to treat young children, (3) prohibitive costs for services not covered by insurance, and (4) driving far distances to dental offices. A parent enrolled in a Migrant Head Start program whose child required extensive restorative care explained that she was on a long waiting list at a local dentist. The mother feared that her child would not receive the care she needed before her family migrated to a different area for work. Some parents enrolled in an American Indian Head Start program explained that they experienced difficulty receiving followup care for their children through the Indian Health Service (IHS). To help them receive the care they needed, Head Start staff referred the parents to a free dental clinic or helped them apply for funds through a local charity to cover the costs of care their children required.

Some parents that participated in the focus groups at all 16 grantees reported receiving support services from Head Start staff to help them make and keep dental appointments for their children. Most commonly parents described receiving referrals to specific dentists or lists of dentists that accepted Medicaid. Other ways parents reported that Head Start staff helped them arrange dental care for their children included making dental appointments for them, sending reminder notices to them about upcoming appointments, providing or arranging transportation to appointments, providing or arranging interpretation services during appointments, and assisting them with paperwork dentists' required them to complete. In addition, during some focus groups parents reported that Head Start helped them cover the costs of dental care through direct payment or by helping them secure the needed funding from other sources, such as charitable organizations. Parents from one OHI grantee were unaware of any dental support services offered by Head Start.

> The guide on oral health distributed by Head Start "gives you a better idea of what healthy teeth look like and what to look for in your child's mouth. Every parent has a different idea of what is healthy and what is not."
>
> --Head Start parent

Parents were overwhelmingly positive about the oral health education and services they received through Head Start. Parents described the oral health services offered by Head Start as instrumental in securing dental care for their children. Parents described Head Start staff as helpful, informative, and concerned about their children's health. When asked if they had advice for Head Start on ways to improve the services provided, no parents had suggestions but some encouraged Head Start to continue to offer the services they were providing.

CHAPTER IV

SUSTAINABILITY OF OHI MODELS AND IMPLEMENTATION LESSONS

Information about the experiences of the Oral Health Initiative (OHI) grantees during the initiative can be useful for informing the development of oral health activities undertaken by other Head Start programs. As described in Chapter I, the study was designed to identify and assess the implementation of oral health service delivery strategies that show promise for replication. In addition, a careful examination of the challenges OHI grantees have faced in achieving their goals can provide important insights to the Office of Head Start about additional support Head Start programs may need to promote oral health.

Preceding chapters of this report described in detail the service delivery models grantees developed, the staffing structures they used, the partnerships they formed, and the oral health services they provided. This chapter describes the funding and resources that grantees had to implement OHI and their plans for sustaining OHI activities after grant funding ends. In addition, the chapter discusses the progress grantees made toward meeting their OHI goals, the implementation challenges they encountered, and the strategies they developed to address these challenges. The chapter concludes with a summary of the OHI implementation strategies that show promise for replication. Volume II of this report provides profiles of these strategies, including descriptions of them and examples of how grantees implemented them in different program settings and with different target populations. Appendix C describes the methodology used for this analysis.

Oral Health Initiative Year One Funding Amounts

	Percentage of Grantees
$75,000	62
$50,000 to $74,999	30
$40,000 to $49,999	8

N = 52 grantees.

OHI FUNDING AND RESOURCES

As described in Chapter I, the Office of Head Start invested $2 million in grants to 52 Head Start, Early Head Start, and Migrant/Seasonal Head Start programs. The grants provided supplemental funding for up to four years. Applicants were able to apply for a range of funding, based upon program size and OHI design; however, the amount was not to exceed $75,000 for the

first funding year. The average amount of funding for the first year of the grant was approximately $68,710, with funding amounts ranging from $40,000 to $75,000 (see box).[30] Grantees' approaches to the use of these funds varied by their chosen program model. This section describes how grantees allocated OHI funds, staff views on the adequacy of OHI funding, and the types of supplemental funding and resources available to grantees. Information in this section is drawn from telephone and site visit interviews with program directors.

OHI FUNDS

Budget Allocation of OHI Grant Funds

	Percentage of Grantees
Personnel	87
Supplies	75
Provision of or reimbursement for clinical services	44
Materials	36
Transportation	10
Other	12

N = 52 grantees.

During telephone interviews, nearly all grantees (87 percent) reported using OHI funds for personnel—including both agency staff and contracted staff—with more than half of these grantees (56 percent) dedicating the largest proportion of funding to personnel time (see box). Less than half of the grantees used OHI funds to provide or pay for clinical oral health services, and only three grantees spent more than 50 percent of funding on clinical services. These three grantees served large immigrant populations, including many undocumented families not eligible for public health insurance coverage. Most grantees reported using Head Start program funds to cover the costs of clinical services not billable to insurance companies. Nearly all grantees used some funds to purchase supplies (75 percent of grantees) or classroom materials (36 percent of grantees). The types of supplies ranged from dental hygiene supplies to dental equipment for mobile or on-site clinics and fluoride treatment supplies. Programs also commonly used funding to purchase classroom materials, such as children's books and puppets, curricula materials, and materials developed for parents and children. Fewer grantees (10 percent) reported using OHI funds to pay the costs of transporting families to dental appointments. Other uses of funding reported only by a few grantees included research and data analysis; staff training; and the sponsoring of training events for families, community partners, or medical and dental providers.

Staff Views on Adequacy of OHI Funding

In telephone interviews with grantee staff, 83 percent described OHI funding as adequate to support OHI as planned. A few of these grantees, however, thought that they would need additional funding to expand OHI to more centers in their service areas or to expand the types of services they offered. Five percent of grantees reported needing more funds to expand staff time on the initiative. These grantees reported underestimating the

[30]Timing of the receipt of grants varied by grantee, often by region. As a result, at the time of the telephone interviews in February and March 2007, some grantees had been implementing OHI for one year, while others had been implementing the initiative for periods between six and nine months.

amount of staff time needed to carry out OHI; a few grantees described OHI as labor intensive. A few also reported having difficulty providing the direct clinical services they had planned to offer through OHI. These grantees reported the cause of the shortages in funding as changes in the availability of services for families on public insurance in the community, underestimations of the amount of treatment that children and adults would require, or an increase of uninsured children who needed funds for services.

Supplemental Funds and Resources

During telephone interviews, most grantees (63 percent) reported that they did not seek supplemental funds for OHI during the first year of implementation. Those grantees that did access supplemental funding and resources (37 percent) reported three main types of additional resources: (1) donations of funds or supplies (90 percent), (2) funding through other initiatives (8 percent), and (3) in-kind support from service providers (13 percent). Donations included small grants from community organizations and private businesses, as well as donations of materials and supplies from local dental providers and dental societies. Supplemental grants were often designated to cover the cost of direct care for uninsured children and pregnant women or to purchase supplies or training materials. Some grantees had access to additional funding through other initiatives, such as state or county health department initiatives or university-funded initiatives. This funding was often used to pay for a specific component of the overall oral health activities, such as a pilot program that distributed xylitol products to families or curriculum development. In a few cases, funding from other initiatives was targeted to specific populations, such as pregnant women or infants and toddlers. The OHI funding, then, was used to expand the services to the entire population. In-kind resources included grantee staff time; dental professionals' time, including that of dental hygienists, dentists, and university professors; and other in-kind contributions, such as space for meetings and parent volunteers.

SUSTAINABILITY OF OHI ACTIVITIES

During site visits with 16 grantees, no grantees reported securing funding to replace OHI funding when the grant period ends. Most grantees indicated that since the grant period extended for another year or more (the month that funds were initially allocated to grantees varied by Administration for Children and Families [ACF] region), they had not yet initiated plans to apply for additional funding. However, five grantees described funding sources that they planned to apply to: (1) health- or oral health–focused foundations, (2) state initiatives, (3) university-based grant-funded projects, and (4) fund-raising campaigns. These grantees reported, however, that even if these funding sources materialized, the amounts would be less than the OHI grant and would be used to maintain only a subset of OHI activities.

The OHI grant offered the 52 grantees the opportunity to develop and implement service delivery strategies to address the oral health needs of Head Start children and families. During the grant period, grantees made strides toward implementing sustainable models by forming partnerships with community providers who will serve Head Start children, adopting oral health curricula, training staff to increase knowledge agency-wide

about the importance of oral health, and developing policies and procedures aimed at incorporating OHI service delivery strategies into regular program operations. Despite these efforts, all 16 grantees that participated in site visits reported that without OHI funding, many aspects of their initiatives would need to be eliminated or cut back. Across grantees, the components they thought would be impacted included OHI lead staff positions, provision of some preventive and treatment services, some educational opportunities for children and parents, and sustainability of some community partnerships. The following sections describe the potential for sustaining each of the components in more detail. Information in this section is drawn from site visit interviews with program directors and community partner staff.

OHI Lead Staff Positions

As described in Chapter II, 58 percent grantees used OHI funds to create new staff positions specifically focused on oral health. Of the 16 grantees that participated in site visits, 7 created new staff positions. These grantees described the new staff positions as essential to implementation, but none had secured funding to maintain the positions after OHI funds end. Two grantees that hired dental hygienists discussed the possibility of the hygienists becoming Medicaid providers, which would allow them to be reimbursed for the oral health screenings and fluoride varnishes they provided to Head Start children. Medicaid reimbursement would not replace their entire salaries, however, because their roles also included time for tracking services, following up with families, and providing oral health education. In addition, five grantees used some grant funding to supplement existing staff salaries (such as those of health coordinators) to allow them to dedicate time to OHI.[31] Even though these grantees were confident they would be able to maintain these staff positions using regular Head Start program funds, they all reported that without the OHI funding, it would be more difficult for these staff members to prioritize oral health issues.

> "The oral health specialist position is very critical because it covers a wide range of educational, clinical, and case management services. Staff members would do the best they could to cover her duties if she were to leave, but they don't have time to establish dental homes for new families….The oral health specialist has a lot more specialized oral health knowledge to answer parents' questions, which the rest of the staff lacks."
>
> —Head Start Director

Preventive and Treatment Services

As described in Chapter III, grantees expanded access to oral health care for children and pregnant women by offering on-site preventive care, expanding networks of dental providers willing to accept referrals for care, and helping families establish dental homes. During telephone interviews, grantees described the implementation of these activities as time intensive. In fact, five percent of grantees reported needing more funds to expand staff

[31]Grantees explained that the funds were used to expand staff hours (for example, from 35 hours per week to 40 hours per week).

time on the initiative because they had underestimated the amount of staff time needed to carry out OHI.

Grantees used OHI funds to (1) pay for staff time or contracted staff time to provide oral health services, such as oral health screenings and fluoride varnishes (30 percent of grantees); (2) pay for the provision of clinical services (44 percent of grantees); and (3) purchase supplies, such as fluoride varnish applications (75 percent of grantees). Grantees reported that their ability to sustain these services at the level achieved during the OHI grant period would be impacted once the grant concluded.

During site visit interviews with 16 grantees, 8 reported that the provision of preventive and treatment services would have to be reduced once grant funding ended. Six grantees were optimistic that access to care would be maintained through community partnerships after grant funding ended. Two of these grantees discussed the possibility of on-staff dental hygienists becoming Medicaid providers, which would allow them to be reimbursed for the oral health screenings and fluoride varnishes (as discussed earlier). Two grantees did not use OHI to pay for preventive and treatment services.

Education for Children and Families

During telephone interviews, all 52 grantees reported expanding the amount of oral health education being offered to parents through OHI, as well as enhancing education for children. In most cases, OHI grant funds allowed grantees to dedicate staff time to selecting curricula and materials or developing new materials for oral health education. Grantees also used OHI funds to train staff on the new educational components.

During site visits, all 16 grantees reported that oral health education components could be sustained once grant funding ended; however, most reported that the intensity of education services would have to be scaled back. Specifically, grantees reported they would reduce oral health education opportunities to parents and children by (1) eliminating oral health education lessons conducted in classrooms by OHI lead staff, (2) eliminating home visits to parents and children conducted by OHI lead staff, and (3) scaling back parent education trainings and workshops specifically focused on oral health education by cutting back on incentives offered to parents or reducing the number of trainings offered. Grantees said they would continue to offer oral health lessons during regular classroom instruction, home visits, and parent meetings. These educational activities would be carried out by direct service staff including teachers, home visitors, and health coordinators.

Community Partnerships with Dental Providers

To increase access to care for Head Start children and families, grantees partnered with providers—including dentists, universities, public health clinics, and organizations that operated mobile dental vans—to provide on-site services to Head Start children and pregnant women or accept

> "The [OHI] funding does make a difference, although the partnerships will be there no matter what."
>
> —Head Start director

referrals for care. Since many providers were able to bill Medicaid for the services they provided or provided in-kind services, both grantee and community partner staff members interviewed during site visits were optimistic that these partnerships would be maintained after OHI grant funding ended.

However, during site visits grantee and community partner staff consistently reported that some services would be more difficult to provide without funding. For example, grantees often purchased the supplies community partners needed to provide on-site preventive care, such as fluoride varnish applications, disposable mirrors, and surgical gloves. Without these supplies, partners said it would be more difficult for them to provide in-kind services because they would have to cover the cost of supplies. Even those partners that billed Medicaid for their services described the convenience of having the supplies provided by the grantees as a benefit. Furthermore, grantees reported that many partners provided preventive care to children and pregnant women who were uninsured either pro bono or on a sliding scale. Since grantees provided the supplies, these services were of minimal cost to the partners. However, partners explained that if grantees could no longer purchase supplies, their ability to provide these services might be reduced.

In addition to supplies, OHI funding allowed grantees to dedicate staff time to recruiting partners, maintaining communication with partners, and coordinating and tracking services. Grantees that participated in site visits reported that while they expected existing partnerships to continue they would not be able to dedicate as much staff time to recruiting and maintaining partnerships after grant funding ended.

PROGRESS TOWARD OHI GOALS

As described in Chapter II, the OHI grantees described goals in three main areas: (1) increasing access to oral health services, (2) providing oral health education, and (3) developing community partnerships and conducting community outreach. Although the evaluation was not designed to estimate OHI's impact on these goals, it can describe the grantees' progress in implementing strategies to support these goals. The rest of this section describes grantees' progress toward each of these goals, as well in the area of staff engagement, which grantees described as integral to successful OHI implementation. Information in this section is drawn from telephone interviews and site visits.

Increasing Access to Dental Services

Two-thirds of the grantees (67 percent) reported during telephone interviews that OHI improved their ability to meet Head Start Program Performance Standards on oral health because they implemented strategies that increased Head Start families' access to dental services. Staff cited improvement in various measures related to access, including:

- Providing more on-site services to children (reported by 37 percent of grantees);
- Increasing the number of dental providers willing to serve Head Start families (71 percent); and

- Helping families establish dental homes (10 percent).

During site visits, increased access to dental services was consistently identified as the most important success of OHI. Grantees continued to report increasing access by providing more on-site services and increasing the number of dental providers willing to accept referrals from Head Start. Whereas only a few grantees identified connecting families with dental homes as an early implementation success, almost all 16 grantees that participated in the site visits reported making progress in their efforts to establish dental homes for all children and pregnant women. As reported early in the implementation process, programs continued to devote significant staff time and resources to recruiting dental providers and following up with families. Staff described the long-term impact of helping families establish a relationship with a dental provider who can continue to provide care once a child leaves Head Start. Several programs also prioritized the dental needs of parents and other family members in efforts to establish a dental home for the entire family.

Expanding Education and Oral Health Awareness Among Families

Two-thirds of the grantees (67 percent) reported offering additional oral health education for children, parents, and staff as an important early success of OHI. Specific successes related to oral health education included:

- Providing more education for children on oral health in classrooms and during home visits than before implementation of OHI (reported by 17 percent of grantees);

- Offering more education on oral health for parents at workshops and parent meetings and through materials and newsletters distributed to families (54 percent); and

- Tailoring materials to be more accessible to families, particularly immigrant and migrant families.

During site visits, staff members from the 16 OHI grantees reported that they continued to prioritize education as a component of the OHI grant, and some expanded educational opportunities for children and parents through parent meetings and workshops, home visits, and written materials, as well as informal interactions with parents. A few grantees had designated specific staff to conduct education; others involved multiple staff in different capacities. Grantees explained that the educational materials they had developed or implemented would allow them to continue to offer education beyond the grant period.

Partnership Building

In the telephone interviews nearly half of the grantees (42 percent) reported that they had successfully formed or expanded community partnerships through OHI. Almost all of these new or enhanced partnerships were with dental providers, who grantees believed were instrumental to OHI implementation. Grantees also built partnerships with advocacy

groups, oral health coalitions, and other community groups aimed at increasing awareness and building frameworks for sustainability. Specific successes in the area of partnership building included:

- Expanding networks of dental providers willing to serve Head Start families (reported by 38 percent of grantees);
- Educating dental and medical providers about the oral health needs of low-income children (13 percent); and
- Fostering community involvement in OHI.

While continuing to develop both formal and informal relationships with dental providers as implementation continued, the 16 grantees that participated in site visits also described forming partnerships with other individuals and organizations beyond the oral health community. Grantees brokered relationships with medical providers, advocacy groups, health departments, and planning groups interested in improving community health. Grantees described these partnerships as laying the groundwork for sustainability by generating community interest in oral health. Two programs that participated in the site visits highlighted their successful partnerships with nondental medical providers. In these programs, medical professionals such as pediatricians and nurses were trained to perform oral health screenings and fluoride varnish applications.

Staff Engagement

Just over a fifth of grantees (21 percent) described staff engagement as an implementation success in the telephone interview. Grantees reported that implementation of OHI was enhanced by a high degree of staff buy-in and commitment. Grantees reported that their staff members were more receptive to implementing activities as their knowledge of oral health improved and they were better equipped to engage parents and community members on the topic. In addition, this increased knowledge enabled staff members to improve their own dental hygiene and oral health habits. During site visits, 14 grantees reported that they continued to train staff on oral health–related topics. Grantees continued to describe staff engagement as important for implementation, but as discussed in the next section, grantees were concerned about how they would maintain staff engagement in the future.

IMPLEMENTATION CHALLENGES

Although grantees made substantial progress toward meeting oral health-related goals, they reported ongoing challenges related to meeting Head Start Program Performance Standards for oral health care and their own program-specific goals related to oral health. This section highlights the challenges most often mentioned by grantees during telephone and site visit interviews, including (1) understanding Head Start Program Performance Standards on oral health, (2) completing dental exams for all children, (3) securing dental treatment, (4) engaging parents, (5) arranging and/or paying for dental treatment for children

and pregnant women, (6) maintaining staff engagement, (7) hiring dental hygienists, (8) delivering fluoride varnish applications to all children, and (9) maintaining community partnerships, and (10) understanding state rules on Medicaid reimbursement for dental hygienists. The strategies grantees implemented to address these challenges are also discussed. Information in this section is drawn from telephone and site visit interviews.

As described in Chapter I, the OHI grantees had diverse, program sizes, and program types. To better understand how the barriers to implementation faced by grantees differed by their unique circumstances, the research team analyzed their findings for four types of grantees: (1) grantees located in rural areas, (2) grantees that served more than 600 children, (3) Migrant and Seasonal Head Start grantees, and (4) American Indian/Alaska Native grantees. Despite their expectations, the research team identified very few differences in the challenges faced by grantees with these characteristics than those identified by all of the OHI grantees. However, the research team did find distinctions in the strategies these grantees used to address implementation challenges. In Volume II of this report, the research team describes the strategies that emerge as promising for addressing barriers related to oral health. These descriptions include information about how implementation varied by program characteristics.

Understanding Head Start Program Performance Standards on Oral Health

Head Start Program Performance Standards require that a health care professional determine whether children are up to date on a schedule of age-appropriate preventive dental care as defined by the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) program of the Medicaid agency of the state in which the program operates. If children are not up to date, programs are required to assist parents in making the necessary arrangements to bring the child up to date; for children who are up to date, grantees must ensure that they continue to follow the recommended schedule of care. During telephone interviews, nearly all grantees reported confusion over which dental services are required under Head Start Program Performance Standards on oral health, such as at what age children must first be seen by a dentist, what constitutes a dental exam, and how a dental home is defined.

During site visits, grantees reported that guidance provided by the Office of Head Start on oral health had clarified how they should define a dental home.[32] However, they reported ongoing confusion regarding how to interpret the Head Start Program Performance Standards requirements for following the state Medicaid EPSDT schedules for preventative dental services. This confusion is present because most states do not have a specific schedule for dental services as part of EPSDT. Grantees said they understood that state Medicaid offices and not the Office of Head Start were responsible for defining these

[32]In February 2007, ACF released Program Instruction (PI) ACF-PI-HS-06-03 that explained the Office of Head Start's policies and expectations regarding grantee compliance with selected oral health requirements. In the PI, the Office of Head Start references the American Academy of Pediatric Dentistry's definition of a dental home as a source of continuous, accessible, comprehensive, family-centered, coordinated, compassionate, and culturally effective oral health care delivered or directed by a professional dentist.

schedules; however, they thought they could benefit from additional guidance on how to address these gaps in information.

Completing Dental Exams

As discussed earlier, the Office of Head Start refers grantees to their state Medicaid program for guidance about the age at which a child is required to receive his or her first dental exam and about providers who are eligible to perform exams. Since most state Medicaid programs do not have EPSDT periodicity schedules for dental care, grantees referred to guidance from the ACF regional offices regarding when children should first receive a dental exam and who is eligible to conduct the exam. Most grantees reported that ACF required all children over age 1 to receive an exam, and most were informed by the regional offices that exams had to be conducted by a dentist. All 52 OHI grantees reported challenges associated with completing dental exams for all children. Grantees attributed these challenges to the limited number of dentists in their communities who both served young children and accepted Medicaid, as well as unresponsiveness on the part of some parents to take children for needed dental care. Challenges of access were magnified for Migrant and Seasonal Head Start grantees because they often faced the added of challenge of serving families for short periods of time. During site visits with 16 grantees, staff members reported frustration that they could not rely on other providers such as dental hygienists and pediatricians to conduct exams.

To ensure that children received dental exams during the program year, the OHI grantees implemented a variety of approaches, including (1) referring families to local providers, (2) bringing dentists on site to conduct exams, and (3) transporting all children to dentists' offices for exams.

Securing Dental Treatment

During the telephone interviews, 67 percent of grantees reported that despite extensive efforts, they continued to find it difficult to secure treatment for Head Start children and families. The main obstacles to care included (1) shortages of dental care providers, especially those willing to accept Medicaid and to serve young children; (2) difficulty paying for services (especially for the uninsured); (3) limited access to transportation, which hindered families' ability to keep dental appointments; and (4) long waiting lists for appointments at public health clinics. Other grantees reported that their communities lacked pediatric dentists and other specialists, providers who were willing to treat children with special health care needs, and bilingual providers.

To overcome limited access to care, grantees reported building a network of dentists willing to serve Head Start families. Specifically, grantees reported encouraging dentists who were reluctant to accept patients with Medicaid to serve a small number of Head Start families by offering to provide support services to ensure that families would keep appointments and follow up with needed treatments. Other grantees reported recruiting dentists to provide treatment during specific dental events, such as on-site dental clinics and health fairs, throughout the year. To help make services more accessible to families and to

encourage families to keep appointments and secure follow-up treatment for children, grantees sometimes paid for transportation or transported families to their appointments, provided translation services during appointments, and accompanied families to appointments. When some grantees were unable to locate dentists who accepted Medicaid, they reported trying to identify providers willing to treat the OHI enrollees at no cost or at reduced rates. This type of arrangement was especially helpful to grantees that enrolled immigrant children and others without insurance coverage. When these arrangements were not available, grantees relied on regular Head Start program funds or OHI funds to pay for services.

Engaging Parents

During telephone interviews, a third of grantees reported struggling to engage parents in educational opportunities and in following up with needed treatment for their children. This continued to be a challenge for many of the grantees that participated in site visits. Although grantees believed that they had made strides in involving parents in educational opportunities, some parents were difficult to reach and engage on the topic of oral health. For grantees that relied on parent meetings and workshops to educate parents, low attendance limited their ability to expose parents to the breadth of information they had planned. In an effort to reach all parents, grantees offered parent education through multiple avenues, including at parent meetings, during appointments, and through materials that were sent home.

Grantees also continued to face difficulties getting some parents to follow up with needed treatment for their children despite efforts by the grantees to arrange appointments and provide support services. Grantee staff explained that parents faced obstacles that made it difficult for them to keep appointments such as unreliable transportation, crises in their lives that took priority over dental care, and continued misinformation among parents about the importance of oral health for young children. As described in Chapter III, grantees offered families a number of support services to help them make and keep appointments, including providing transportation or transportation assistance, helping families make appointments, providing or arranging for interpreters, sending out reminder notices or making reminder calls to families about appointments, and accompanying families to appointments.

Arranging and Paying for Extensive Treatment Services

During the telephone interviews, nearly all grantees (92 percent) said they referred children and pregnant women to community providers for dental treatment. Typically, the children received treatment in provider offices, and the cost of care was covered by Medicaid. However, some children required extensive treatment services that had to be conducted by specialists or in children's hospitals. Often these providers were not located in grantees' service areas and families had to travel long distances for care. Pregnant women often required extensive treatment services, which were not always covered by Medicaid. During telephone interviews, 15 percent of grantees reported that arranging and paying for extensive treatment services were a challenge. To help families pay for the travel costs

associated with visiting these providers and to cover the cost of treatment for pregnant women, grantees often relied on regular Head Start program funds or worked with families to obtain funding from local foundations or other charitable organizations.

Maintaining Staff Engagement

During telephone interviews, some grantees (13 percent) also discussed the staff-related challenges that affected implementation of grant activities. Some grantees reported having difficulty finding appropriately skilled individuals to fill OHI positions and problems with staff turnover in key positions. More often, grantees discussed difficulty achieving staff buy-in and problems with time management. A number of grantees reported underestimating the amount of staff time required to complete OHI activities, including coordination of day-to-day logistics. During site visits, grantees added that maintaining staff interest in grant activities emerged as a challenge. Grantee staff members explained that competing priorities often limited their ability to maintain a high level of momentum around oral health services.

To maintain staff engagement in OHI, grantees integrated training on oral health topics into preservice training and regularly scheduled staff trainings. OHI lead staff visited classrooms and conducted home visits with staff to model oral health lessons. To keep staff energized about the importance of oral health, grantees shared successes with staff, such as vignettes about reluctant families that took children for needed followup and children who were relieved of severe pain. Grantees also integrated various oral health activities into their existing curriculum. Some grantees developed packets for staff with all of the needed materials and props for oral health lessons to ease the burden required to implement oral health–related activities.

Hiring Dental Hygienists

As described in Chapter II, 30 percent of grantees used OHI grant funds to hire or contract with individuals who had clinical dental experience, in nearly all cases, dental hygienists. Hiring dental professionals, however, was challenging for grantees, because of the relatively low salaries offered by the Head Start programs as compared to other employers. Head Start grantees' salary scales often limited their ability to offer competitive salaries and attract dental hygienists. In response to this challenge, some grantees obtained their clinical staff through contracts rather than as new staff hires, which gave them more flexibility to offer competitive compensation. However, these contractual relationships often resulted in fewer hours and more limited availability than grantees desired.

Delivering Fluoride Treatments

Three-quarters of all 52 OHI grantees implemented a fluoride varnish program, most often by providing the service directly at Head Start centers. Other grantees participated in state and local initiatives that provided on-site fluoride varnishes to children in Head Start programs. During site visits, many grantees reported that delivering fluoride varnishes to all

children on site at least twice a year was difficult because some children were absent when on-site services were provided.[33]

To overcome these challenges, some grantees that participated in site visits described conducting varnishes up to four times per year in an effort to reach all children at least once. Other grantees combined on-site fluoride varnish programs with outreach to pediatricians and family practice physicians to train them to conduct fluoride varnishes. Oftentimes these outreach efforts were part of state or local initiatives to train medical providers to conduct basic preventive dental care, including oral health screenings and fluoride varnishes.

Maintaining Community Partnerships

As described in Chapter II, grantee staff who participated in site visits identified challenges associated with forming and maintaining community partnerships. Most grantees attributed their greatest challenges related to partnerships to the turnover of community partner staff. Grantees described turnover as a major challenge because they had to start all over again when new staff members were appointed to work with them. Grantees said they found themselves constantly retraining and reestablishing relationships because of staff turnover. A few grantees had conflicts with community partners resulting from differences of opinion about appropriate oral health practices or with partners that refused treatment to families. To address these challenges, grantees dedicated staff time to maintaining ongoing communication with community staff and assigned a point person at Head Start to serve as a liaison between the partner and the grantee.

Additionally, some grantees that participated in site visits described training provided by community partners as time consuming to arrange, plan, and attend. To address this challenge, grantees encouraged partners to tailor trainings so that they were informative but efficient. Another challenge reported by grantees occurred when a community partner faced budget constraints that limited its ability to meet its agreement with Head Start. When this happened, grantees often had to seek additional partners.

Understanding States Rules on Medicaid Reimbursement for Dental Hygienists

As described earlier in the discussion on sustainability, staff from some grantees interviewed during the site visits planned to explore the possibility of on-staff dental hygienists becoming Medicaid providers. As Medicaid providers, they could be reimbursed for the oral health screenings and fluoride varnishes they provide to Head Start children and possibly make it feasible for grantees to maintain their positions after grant funding ended. During telephone interviews, a few grantees reported that they planned to hire dental hygienists who could be reimbursed for preventive services through Medicaid. The grantees, however, faced difficulties in implementing these plans. One grantee explained that

[33]The American Dental Association (ADA) recommends at least biannual applications of fluoride varnish for children under age 6 (ADA 2006). For children considered at high risk for dental caries, ADA recommends applications at three- to six-month intervals. ADA's recommendations are described as a resource for dental providers and should be used in combination with professional judgment of each patient's risk factors and unique circumstances.

although the dental hygienist hired by the agency was able to bill Medicaid directly for her services, this arrangement could not be maintained because it prevented the pediatric dentist who supervised the dental hygienist from billing Medicaid to the fullest extent possible. Because Medicaid reimbursement rates for treatment services are so low, the dentist explained that she could not recover her costs for treatment unless she administered the preventive services and billed for them in addition to treatment. A staff member from another grantee reported that she had attempted to establish Medicaid billing but could not identify anyone in the state to help her complete the process. To address these difficulties, grantees sought advice from regional oral health consultants and local oral health–related associations. However, grantees reported that they would benefit from additional training and technical assistance in this area.

EMERGING IMPLEMENTATION APPROACHES AND STRATEGIES

The OHI grantees designed service delivery models that were responsive to the needs of their communities and the populations they served. For example, grantees with limited access to dental providers concentrated OHI grant activities on providing preventive services to children on site, while networking with local providers, oral health associations, and universities to gain increased access to care for the families they served. In communities with better access to care, grantees focused OHI activities on parent and child education with an aim of increasing the rates of parents who follow up with needed care for their children and improving children's oral hygiene habits. As described in this chapter, grantees made significant progress in meeting the goals they developed for OHI, but they also encountered challenges. In response to these challenges, grantees adjusted the strategies they implemented and tried new approaches to service delivery.

During the site visits, the researchers sought to learn why grantees selected particular strategies and service delivery models, how they implemented those strategies and services, and the successes and challenges grantee staff and community partners experienced. The research team used this information to systematically identify implementation strategies that show promise for replication. To achieve this goal, MPR and Altarum analyzed data collected during site visits to the 16 grantees and a full year of program record-keeping system data from these 16 grantees. The data were then used to systematically identify approaches and strategies that showed promise for replication. To identify emerging strategies, the research team used a four-step process that involved (1) identifying implementation approaches and strategies, (2) coding site visit reports to identify all grantees using each strategy, (3) using site visit and record-keeping system data to assess the strategies, and (4) based on data identifying strategies that show promise for replication. Detailed information about the methodology the research team used to identify emerging strategies is included in Appendix C.

This section includes a summary of the nine implementation approaches that emerged as showing promise for replication. For each approach, the research team identified a range of strategies. These strategies are listed below. Volume II of this report provides profiles of the emerging strategies identified by the research team, including descriptions and examples

of how grantees implemented the strategies in different program settings and with different target populations.

Hire Staff to Support the Delivery of Oral Health Services. The research team identified four strategies related to staffing that show promise for replication: (1) hire a dental hygienist who can provide on-site dental services, (2) hire someone with a background in oral health to oversee oral health activities, (3) hire someone familiar with the language and culture of the community who is able to communicate effectively with families, and (4) contract with one or more dental hygienists to provide on-site services.

Train Staff Members to Achieve Staff Buy-in Regarding the Importance of Oral Health and to Enable Them to Carry Out Oral Health Education with Children and Families. Within this approach, the research team identified three strategies that show promise for replication: (1) train teachers and other direct service staff on materials and curricula to facilitate lessons on oral health; (2) train all agency staff on oral health–related topics during preservice training; and (3) conduct ongoing in-service training for teachers, home visitors, and family services workers on oral health education.

Recruit Dental Providers to Serve Head Start Families. Within this approach, the research team identified five strategies for recruiting dental providers: (1) join oral health stakeholder groups to familiarize providers with Head Start; (2) work with a key stakeholder in the community to engage dental providers; (3) provide training opportunities for health care professionals and other potential partners; (4) work with local college and university departments to familiarize professionals with Head Start; and (5) individualize Head Start tracking systems to meet the needs of dental providers.

Implement Case Management Procedures to Increase Rates of Preventive Care and Needed Treatment Children and Pregnant Women Receive. Within this approach, the research team identified four emerging strategies: (1) report results of dental screenings to parents and direct service staff to encourage followup; (2) update risk-assessment and dental screening results throughout the year to track receipt of dental services; and (3) assign an oral health coordinator (or other designated staff person) to follow up with families that are unresponsive to requests by direct service staff.

Provide Preventive Care to Children and Pregnant Women on Site, at Special Events, or Through Referrals. Within this approach, the research team identified four strategies for the provision of preventive care: (1) provide preventive oral health services on site conducted by a community partner or dental hygienist; (2) offer dental fairs and/or clinics at which Head Start families can receive preventive care; (3) team with local medical providers (pediatricians, family practice doctors, nurses, nurse practitioners) to provide oral health screenings and/or fluoride treatments during doctor visits; and (4) establish partnerships with local dental providers willing to accept referrals of Head Start children and pregnant women.

Offer Support Services to Families to Help Them Make and Keep Dental Appointments. Strategies to help families make and keep appointments include the following: (1) transport families to appointments, or arrange transportation; (2) send

reminder notices/make reminder phone calls to families about upcoming appointments; (3) make appointments for families or help them make appointments; and (4) assist families in covering the costs of needed dental care.

Educate Parents About the Importance of Oral Health. To educate parents, the following strategies show promise: (1) provide education for parents during on-site dental services or during dental appointments; (2) offer parent meetings or workshops focused on oral health; (3) include information on oral health at all parent meetings; (4) offer incentives to parents who attend parent meetings and workshops; (5) reinforce education conducted during parent meetings, workshops, and appointments with informational materials that are sent home to parents; and (6) tailor educational materials to parents' reading levels and primary languages.

Educate Children About How to Care for Their Teeth and What to Expect During Dental Services. Within this approach, the research team identified three strategies that show promise for replication: (1) arrange for dental hygienists, dentists, or other oral health specialists conduct oral health education with children; (2) provide education during on-site services and at dental appointments; (3) integrate an oral health curriculum into daily or weekly lessons; and (4) conduct oral health education with children prior to dental services to familiarize them with the services.

Integrate Oral Health–Related Activities and Services into Existing Management Systems. To integrate oral health–related activities and services into existing management systems, emerging strategies include the following: (1) implement program policies and procedures on oral health components (screenings and exams, education, toothbrushing, fluoride varnish) and (2) integrate monitoring of oral health policies into agency-wide monitoring systems.

POTENTIAL NEXT STEPS

National attention has been given to the oral health needs of low-income children and the need to address the disparities in care that exist between these children and their higher-income peers (U.S. DHHS 2000, 2003). OHI represents the first step in developing strategies designed to address these disparities and increase access to care for Head Start children. Through their experiences in implementing the initiative, grantees have demonstrated the feasibility of recruiting dental providers to serve Head Start children, the levels of need for and interest in these services among Head Start families, the levels of service delivery that can be achieved, and the staffing patterns that seem most promising. They have also identified a number of lessons related to implementation and service delivery that could be applied to future attempts at replication.

Experiences of the OHI grantees also suggest that initiatives for addressing the oral health needs of Head Start children can be implemented in Head Start programs with fairly modest amounts of additional resources. Overcoming barriers to accessing needed services, however, is labor intensive and requires staff who can devote substantial effort and focus on addressing families' oral health needs. The OHI grantees will need to identify additional

sources of funding for covering the cost of staff dedicated to oral health services, for contracting with dental hygienists to provide on-site preventive care, and for purchasing educational materials and dental hygiene supplies.

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APPENDIX A

TELEPHONE AND SITE VISIT INTERVIEW PROTOCOLS

OMB No.: 0970-0314
Expiration Date: 01/31/2010

Head Start Oral Health Initiative
Director Telephone Interview Protocol

INTRODUCTION (2 minutes)

My name is _____ and I work for [MATHEMATICA POLICY RESEARCH/HEALTH SYSTEMS RESEARCH], an independent research firm. As you know, we are conducting a study for the Administration on Children and Families about Head Start agencies' experiences implementing the Head Start Oral Health Initiative. Findings from the study will be helpful to other Head Start agencies implementing similar initiatives. Thank you for agreeing to participate in this telephone interview.

I would like you to feel comfortable giving your opinions and impressions. The information we gather will be used to write a report for the Administration for Children and Families about programs' experiences implementing the Head Start Oral Health Initiative, including successes, challenges, and lessons learned by grantees. Our report will describe the experiences and viewpoints expressed by staff across grantees, but specific comments will not be attributed to specific individuals or programs. No one will be quoted by name. We will also use the information to create a profile for your site, and we will give you an opportunity to review and comment on a draft version of the profile before we finalize it.

I need to cover a number of topics during the interview. At times I may need to move our conversation along to make sure we have enough time to cover all of the topics within 90 minutes.

Do you have any questions before we get started?

About You

To begin, I'd like to learn about your role in the Oral Health Initiative.

1. What is your official job title? What are your primary responsibilities?
2. How long have you worked for [GRANTEE]?
3. How long have you held your current position? What other positions have you held within the agency?

GRANTEE CHARACTERISTICS (5 minutes)

Now I'd like to confirm some information from your agency's Oral Health Initiative proposal. This information was included in a letter we sent you about scheduling this interview.

4. Has any of the information listed in the letter changed? If so, what has changed? (PROMPTS ONLY IF NEEDED: grantee contact information, programs operated by grantees, service options)

5. What are the main programs (other than Head Start) that your agency operates/services you provide?

6. What is the size of your organization? How many families does your agency serve annually? Approximately how many staff do you have? How many Head Start centers do you operate? What is your Head Start program's operating schedule?

7. How long has your agency provided services in [COMMUNITY]? How long has your agency operated the Head Start, Early Head Start, and/or Migrant/Seasonal Head Start program(s)?

COMMUNITY AND FAMILY CHARACTERISTICS (10 minutes)

Let's talk about your community and the characteristics of families and children targeted for the Oral Health Initiative.

8. What is your Head Start/Early Head Start/Migrant Head Start program's geographic service area? Is it primarily urban, rural, suburban, or a mix? Are you operating the Oral Health Initiative in the entire service area, or only a portion of it? If so, what part and why?

   PROBE:

   - If implementing in multiple locations, does implementation differ across sites, and if so, how?

9. Can you please describe the Head Start families you are serving through the Oral Health Initiative?

   PROBES:

   - What languages do they speak?

   - What are their ethnic and cultural backgrounds?

10. *Briefly, can you tell me about the availability of other services for children and families, such as medical care, transportation, and social services?*

11. What are families' main barriers to accessing oral health care? What is the availability of oral health care providers in the community?

    PROBES:

    - Availability of general dentists? Pediatric dentists? Other providers?
    - Do oral health care providers in your community accept Medicaid?
    - Are they willing to serve young children?
    - Are providers available who speak the languages spoken by Head Start families?

12. In general, what are families' cultural norms and practices related to oral health care? Oral health care beliefs and practices for young children?

    PROBE ONLY IF NEEDED:

    - What is the prevalence of practices that threaten oral health, such as putting babies to bed with bottles, using pacifiers past age 3, giving children sweetened drinks, other?

GRANTEE GOALS, OBJECTIVES, AND KEY COMPONENTS (5 minutes)

At this point, I'd like to begin talking specifically about the Health Start Oral Health Initiative. To start, let's talk about how your agency designed the initiative and decided which services to offer.

13. Why did you decide to apply for an Oral Health Initiative grant?
14. What are your program's goals and objectives for the Oral Health Initiative?

    PROBES:

    - Have these goals and objectives changed since you began implementation?
    - If so, how have they changed and why?

15. What are the key components of your Oral Health Initiative?
16. How many children are you planning to serve, and what ages? Will your program provide services to pregnant women? Other family members? CONFIRM FROM PROPOSAL.

    PROBE:

    - How did you decide which children and families to target for Oral Health Initiative services?

17. What is your annual budget for the Oral Health Initiative? CONFIRM FROM PROPOSAL. Approximately what proportion of funds do you spend on staff salaries, direct purchase of dental services, oral hygiene supplies, and other types of expenses?

    PROBES:

    - When did you receive your grant?
    - When did you begin implementing OHI?

DESIGN PROCESS (10 minutes)

18. How did your program identify goals and objectives for the Oral Health Initiative and decide which services to provide?
19. Who was involved in designing the Oral Health Initiative?

    PROBES:

    - Was your health advisory committee, policy council, or another advisory body involved in the planning process? If so, who are the members of this committee and what is its role?
    - Are there any dental representatives on your health advisory committee?
    - Did you work with community oral health coalitions or other community groups in planning your grant?
    - Regional office and/or TA staff, regional oral health consultants?

20. What other resources did you use for designing the initiative?

    PROBE:

    - For example, did you draw on any state plans related to oral health (state oral health plans, plans resulting from a Head Start oral health forum)?

21. Did you do a community needs assessment or use data from one that was already done? If so, how did you use the needs assessment data?
22. In designing the Oral Health Initiative, did you build on previously existing oral health activities in your program, or did you design a new approach?

    PROBES:

    - If you built on previous activities, please tell me about these activities.
    - If you designed a new approach, how did you design it?

STAFFING STRUCTURE AND TRAINING (10 minutes)

Now I'd like to learn about how your Oral Health Initiative is staffed.

23. Approximately how much time do you spend on the initiative on a weekly or monthly basis?

24. How did you decide how to staff the initiative? Did you hire new staff, reassign existing staff, or both?

    PROBE:

    - Why did you take this approach?

25. How many staff work on the oral health initiative? What are their job titles and main duties related to the initiative?

    PROBE:

    - What are their qualifications?

26. Are all planned positions for the Oral Health Initiative filled? If not, why not, and what plans do you have to fill the positions?

    PROBE:

    - If positions are filled, how soon after receiving Oral Health Initiative funding were you able to fill them?

27. How well is the staffing structure for the Oral Health Initiative working out so far?

    PROBE:

    Do you have sufficient staff resources to operate the initiative as planned?

28. Did staff receive any special training in preparation for their work on the Oral Health Initiative? If so, which staff received training? Please describe the training they received.

    PROBES:

    - Did they receive training on how to conduct visual inspection of teeth and mouth to identify children who need follow up care?

    - How to provide oral health education to parents and children?

    - Cultural issues related to oral health?

    - Other topics?

29. Have staff received any training for the initiative since the initiative started? Do you have future training plans for Oral Health Initiative staff? IF NOT ALREADY MENTIONED IN # 29 ABOVE

    PROBES:

    - Any plans to provide training on conducting visual inspection of teeth and mouth to identify children who need follow up care?
    - How to provide oral health education to parents and children?
    - Cultural issues related to oral health?
    - Other topics?

30. Do you have plans in place to train new staff hired in the future due to turnover in Oral Health Initiative staff? Please describe.

31. Has your program received any training or technical assistance from the Head Start T/TA system, the regional oral health consultants, or other sources to support your work on the Oral Health Initiative?

    PROBES:

    - Have your staff attended any regional cluster trainings on oral health?
    - If so, was the training helpful?

COMMUNITY PARTNERS (10 minutes)

32. How many and what types of organizations have you partnered with to provide services through the Oral Health Initiative?

    PROBES:

    - What was your rationale for recruiting them?
    - Are there other partners that you still need to pursue?
    - If so, please describe them and their potential role in the Oral Health Initiative?

33. What strategies did you use to identify and reach out to these partners?

34. Do you have formal partnership agreements with these partners?

    PROBE:

    - If so, what is included in the agreements?

35. What are the partners' roles in the Oral Health Initiative? What services do they provide to Head Start children and families?

36. Have you provided any training to community partners or other oral health care providers?

    PROBES:

    - To improve their ability to address oral health issues for young children?
    - To improve their cultural competence for working with Head Start families?
    - How helpful do you think this training was for community partners?
    - Did the training increase their receptivity to serving Head Start children and families?

37. How are the partnerships going so far?

    PROBE:

    - What has worked well about the partnerships, and what has been challenging?

SERVICE DELIVERY (25 minutes)

Now I'd like to learn about the services you provide to children and families through the Oral Health Initiative. I'll start with some questions about oral health risk assessments and exams, and then ask about clinical preventive and treatment services.

Risk Assessment and Clinical Services

38. Does your program conduct or arrange for routine oral health assessments using clinical or other means (such as clinical assessments, parent questionnaires, assessment of medical history, assessment of demographic risk factors) through the Oral Health Initiative? Who conducts these assessments (for example, dentists, dental hygienists, nurses, health coordinators, others)?

39. Does your program use a formal oral health risk assessment tool for the Oral Health Initiative that classifies children into risk categories?

    PROBE:

    - If so, which tools do you use and why did you select them?

40. How does your program use the results of the risk assessments?

    PROBE:

    - For example, are oral health care providers able to use the assessment results to make a diagnosis or development a treatment plan based on this assessment?

41. What types of other preventive services do you provide through the Oral Health Initiative? Who provides these services?

Reference: Services listed in the recordkeeping system	
Dental Screening	Topical fluoride treatment
Clinical exam	Other fluoride treatment
Cleaning	Xylitol wipes
Fluoride rinse	Dental sealants
Fluoride varnish treatment	Root planing and scaling (preventive)
Fluoride tablets prescribed	Anticipatory guidance

PROBES:

- For example, do you provide cleanings, sealants, fluoride treatments, or other preventive services?
- Which services are provided by your program and which are provided by partners?
- Where are the services provided?
- How are the costs of these services covered (for example, program grant funds, insurance reimbursement, donated by provider)?

42. What types of clinical treatment services do you provide through the Oral Health Initiative?

Reference: Services listed in the recordkeeping system	
Fillings (1-2)	Bridge/dental implant
Fillings (3 or more)	Root planing and scaling (therapeutic)
Extractions (1-2)	Treatment requiring hospitalization and/or sedation
Extractions (3 or more)	Other

PROBES:

- Which services are provided by your program and which are provided by partners?
- Where and by whom are the services provided? How are the costs of these services covered (for example, program grant funds, insurance reimbursement, donated by provider)?

43. Which services do you provide to other family members such as siblings, pregnant women, and other adults? Does this differ for different populations of children and families?

Services to Support Access to Dental Services

44. Do you have referral systems in place through the Oral Health Initiative for helping families access needed clinical services? If so, how do these work?

45. Do you keep track of treatment outcomes and needed follow up services through the Oral Health Initiative? If so, how do you do this?

46. Do you provide services through the Oral Health Initiative to help families access needed clinical services, such as help them make appointments, provide transportation, or provide translation services? If so, who provides these services?

47. What is your definition of a dental home? Does your program help families establish dental homes for their children? If so, how do you do this?

> **Reference: Definition from HS regulations**
> A dental home is a source of continuous, accessible, comprehensive, family-oriented, coordinated, compassionate, and culturally effective oral health care delivered and directed by a professional dentist (Oral Health. ACF-PI-HS-06-03. DHHS/ACF/OHS. 2006. English).

Oral Health Education

48. Do you provide education and skills-building activities to parents about oral health promotion as part of the Oral Health Initiative?

PROBES:

- If yes, please tell me about these services and the main educational messages you aim to deliver.
- Who provides this education?
- How and where are the educational messages delivered (for example, during parent meetings, home visits, or by distributing written materials)?
- Are parents instructed on how to do visual inspections of children's teeth using such techniques as "Lift the Lip"?

49. Do you provide education and skills-building activities through the Oral Health Initiative on oral health promotion specifically to pregnant women?

PROBES:

- If so, who provides this education, and where?

- Are the educational messages different from those provided to other Head Start parents? If so, how?

- What happens after the baby is born? How do the educational messages change?

50. Do you provide oral health education and skill building activities to children through the Oral Health Initiative?

    PROBES:

    - Who provides this education, and where is it provided?

    - How are the educational messages delivered (for example, classroom activities, home visit)?

51. Do you use a curriculum to provide oral health education to children and families through the Oral Health Initiative? If so, what curriculum do you use?

    PROBES:

    - Why did you choose it?

    - Have you made any adjustments to the curriculum? If so, why?

    - What feedback have you received on the curriculum from teachers, other staff, and families?

52. Do you provide oral hygiene supplies to children and families through the Oral Health Initiative? If so, what types of supplies do you provide, and to whom?

    PROBES:

    - How do you provide them and how often?

    - Do parents receive training on how to use the supplies?

53. To what extent have you tailored education and other non-clinical services to the needs and cultural norms of your target population for the Oral Health Initiative?

    PROBE:

    - Can you please provide some examples?

54. Have you taken steps to expand your Oral Health Initiative to the broader community?

    PROBE:

    - For example, have you participated in community health fairs or other community education events? Other Head Start programs?

EARLY IMPLEMENTATION EXPERIENCES (15 minutes)

I'd like to wrap up the call by hearing your views on the successes and challenges you've experienced implementing the initiative so far.

55. Is your funding for the initiative sufficient to implement it as planned? Do you have access to additional funding sources or other resources for operating the Oral Health Initiative? If so, what are these sources and which costs do they cover?

56. Have you applied to any other sources for additional funding to operate the Oral Health Initiative?

    PROBES:

    - If so, where is your application in the review process?
    - How will you use the funds if you receive an award?

57. At this early stage, how much progress have you made toward meeting your goals and objectives for the Oral Health Initiative?

58. Since you began implementing the Oral Health Initiative, have you made changes to your original design? If so, what are the changes and why did you make them?

59. What have been your most important successes so far?

    PROBE:

    - What are you most proud of?

60. What are the most significant challenges your program has faced so far?

61. What strategies have you used to address these challenges? How well do you think these strategies are working?

62. Have you consulted with other Oral Health Initiative grantees about implementation challenges or other issues?

    PROBES:

    - If so, how did this happen—email, phone, facilitated by Head Start Oral Health Consultant?
    - What issues did you discuss?

63. Is there anything more the Office of Head Start, the regional office, or the Head Start T/TA network could do to support your work on the Oral Health Initiative?

64. Is there anything else you would like to add before we end the discussion?

Thank you again for participating in the interview. As a next step, our evaluation team will draft a profile of your program's Oral Health Initiative and send it to you for review by the late spring, most likely in May. These profiles will be included in an interim evaluation report scheduled for completion in summer 2007. We will use information from these interviews and the recordkeeping system to select 16 Oral Health Initiative grantees to participate in site visits in fall 2007. We will produce a final report for the evaluation in spring 2008.

Head Start Oral Health Initiative
Director Site Visit Interview Protocol

INTRODUCTION (2 minutes)

Thank you for agreeing to participate in this interview. My name is _____ and I work for [MATHEMATICA POLICY RESEARCH/HEALTH SYSTEMS RESEARCH], an independent research firm. As you know, we are conducting a study for the Administration on Children and Families about Head Start agencies' experiences implementing the Head Start Oral Health Initiative. Findings from the study will be helpful to other Head Start agencies implementing similar initiatives.

Everything you tell me is confidential. I would like you to feel comfortable giving your opinions and impressions. The information we gather will be used to write a report for the Administration for Children and Families about programs' experiences implementing the Head Start Oral Health Initiative, including successes, challenges, and lessons learned by grantees. Our report will describe the experiences and viewpoints expressed by staff across grantees, but specific comments will not be attributed to specific individuals or programs. No individual staff member will be quoted by name.

Do you have any questions before we get started?

About You

To begin, I'd like to review your role in the Oral Health Initiative.

1. IF STAFF ARE THE SAME AS THOSE INTERVIEWED IN THE TELEPHONE INTERVIEW ASK: Have your responsibilities on the Oral Health Initiative changed since the telephone interview?

2. ASK EACH RESPONDENT ONLY IF STAFF ARE DIFFERENT THAN THOSE INTERVIEWED PREVIOUSLY BY TELEPHONE: I'd like to learn about your role in the Oral Health Initiative.

    - What is your official job title, and what are your primary responsibilities?
    - How long have you worked for [GRANTEE]?
    - How long have you held your current position? What other positions have you held within the agency?

GRANTEE CHARACTERISTICS (5 minutes)

I'd like to update our information about your agency.

3. Since the telephone interview in [MONTH AND YEAR], have there been changes in:

    - Your program's organizational structure

- The Head Start program options you operate (home-based, center-based mixed)
- The size of your program, such as the number of children, pregnant women, and families served in Head Start, Early Head Start, and/or Migrant/Seasonal Head Start
- Your operating schedule

COMMUNITY AND FAMILY CHARACTERISTICS (10 minutes)

Let's talk about your community and the characteristics of families and children targeted for the Oral Health Initiative.

4. **Have there been any changes to your program's geographic service area since the telephone interview? Any changes in the portion of your service area targeted by the Oral Health Initiative?**

   IF YES:

   - Why have these changes happened?

5. **Have there been any changes in the characteristics of the children and families you are targeting for participation in the Oral Health Initiative?**

   IF YES:

   - Is this because of changes in your population of Head Start families or because of changes in how you are targeting Oral Health Initiative services?

6. **Have there been any changes since the telephone interview in the availability of oral health care providers in the community?**

   IF YES:

   - Has availability of providers increased or decreased?
   - Why has this happened?

7. **Have there been changes in the availability of other services, such as health care, transportation, and other social services?**

   IF YES:

   - Has availability increased or decreased?
   - Why has this happened?

8. **During the telephone interview, you listed the families' main barriers to oral health care as [FILL IN FROM TELEPHONE INTERVIEW NOTES]. Have any of these barriers been eliminated? If so, how? Are there other barriers families face now?**

9. **During the telephone interview, you mentioned the prevalence of the following practices that threaten oral health [FILL IN FROM TELEPHONE INTERVIEW NOTES]. Have you seen any change in the prevalence of these practices?**

FOLLOW-UP:

- Have you identified other common practices that negatively impact oral health?
- If so, what are they?

10. **Do children and families targeted for the Oral Health Initiative has access to health and dental health insurance coverage?**

    IF YES:

    - Do they have private insurance, or are they covered primarily by public insurance programs such as Medicaid?
    - Do dental care providers in the community accept public insurance coverage?

11. **Approximately what proportion of children targeted for the Oral Health Initiative have a disability or developmental delay? What percentage are English Language Learners?**

    FOLLOW-UP:

    - Does this create additional barriers to accessing oral health care services?
    - If so, how and why?

GRANTEE GOALS, OBJECTIVES, AND KEY COMPONENTS (5 minutes)

Now I'd like to begin talking specifically about the Health Start Oral Health Initiative. To start, let's talk about how your goals and objectives for the initiative.

12. During the telephone interview, you listed [FILL IN FROM TELEPHONE INTERVIEW NOTES] as your primary goals and objectives for the Oral Health Initiative. **Have these changed since the telephone interview?**

    IF YES:

    - What changes have you made and why?

13. During the telephone interview, you listed [FILL IN FROM TELEPHONE INTERVIEW NOTES] as the key components of your Oral Health Initiative. **Have these changed?**

    IF YES:

    - How have they changed and why?

14. At the time of the telephone interview, your program was planning to serve [FILL IN NUMBERS OF INFANTS AND TODDLERS, PRESCHOOLERS, PREGNANT WOMEN, AND OTHER FAMILY MEMBERS] through the Oral Health Initiative. **Have these targets changed since the telephone interview?**

    IF YES:

- How and why?

15. During the telephone interview, you said you planned to make the following changes to your original design for the Oral Health Initiative [FILL IN FROM TELEPHONE INTERVIEW NOTES]/did not plan to make changes to your original changes for the Oral Health Initiative. **Since that time, have you made other changes to your design?**

    IF YES:

    - What changes and why?

STAFFING STRUCTURE AND TRAINING (15 minutes)

Let's now turn to how the Oral Health Initiative is staffed.

16. During the telephone interview, you reported spending approximately [FILL IN TIME FROM TELEPHONE INTERVIEW NOTES] on the Oral Health Initiative. **Has your time on the initiative increased or decreased since then?**

    IF YES:

    - How much time do you spend on the initiative now, and why has it changed?

17. During the telephone interview, you reported that the following staff were assigned to the Oral Health Initiative: [FILL IN FROM TELEPHONE INTERVIEW NOTES]. **Have there been any changes to the staffing structure since that time?**

    IF YES:

    - What changes did you make and why?
    - How well have these changes worked out?

18. **Have you had any turnover in staff assigned to the Oral Health Initiative?**

    IF YES:

    - Which positions?
    - Have vacant positions been filled?
    - How has staff turnover affected the design or implementation of your Oral Health Initiative?
    - Has turnover affected what you have been able to accomplish on the initiative so far?

19. **How well is the staffing structure for the Oral Health Initiative working out so far? Do you have sufficient staff resources to operate the initiative as planned?**

20. **Based on your experience with the initiative so far, if you could, would you make changes to the staffing structure? If so, why?**

21. IF THE AGENCY HAS HIRED OR ASSIGNED NEW STAFF FOR THE ORAL HEALTH INITIATIVE SINCE THE TELEPHONE INTERVIEW, ASK: What are the

qualifications of new staff hired/assigned to the Oral Health Initiative? Did they receive any special training in preparation for their work on the initiative? Did they receive training on how to conduct visual inspection of teeth and mouth to identify children who need follow-up care?

22. **Since the telephone interview, what additional training have staff received for their work on the Oral Health Initiative?**

    IF YES:

    - Who provided it?
    - In your opinion, how helpful was this training?

23. **Do you have plans to provide additional staff training to support the initiative?**

    - IF YES:
    - If so, what kind of training and why are your planning to provide it?

24. **Since the telephone interview, what training or technical assistance has your program received from the Head Start T/TA system, the regional oral health consultants, or others to support your work on the Oral Health Initiative?**

    IF RECEIVED TRAINING OR TA:

    - In your opinion, how helpful was this T/TA?
    - If it was helpful, what made it helpful?
    - If it was not helpful, do you have recommendations for how to improve it?

25. **Do you have additional T/TA needs for the Oral Health Initiative?**

    IF YES:

    - What kind of T/TA do you need?
    - Do you have a plan in place to obtain it?
    - If no, why not?

COMMUNITY PARTNERS (15 minutes)

During the telephone interview, you identified the following community partners that work with you on the Oral Health Initiative: [FILL IN FROM TELEPHONE INTERVIEW NOTES].

26. **Have you ended your partnerships with any of these partners since the telephone interview?**

    IF YES:

    - Which ones and why?

27. **Have you formed any new partnerships since the telephone interview?**

IF YES:

- Who are the partners and why did you decide to recruit them?

28. **Do you have formal partnership agreements with these partners (both new and existing)?**

    IF YES:

    - What is included in the agreements?

29. **What are the partners' roles in the Oral Health Initiative?** What services do they provide to Head Start children and families? **Have these roles changed since the telephone interview?**

    IF YES:

    - How have they changed and why?

30. **Do you make referrals to community partners for services?**

    IF YES:

    - Do you receive information from them about treatment and needed followup?
    - How do these referral systems work?

31. **Have you provided training to community partners or other oral health service providers about providing oral health services to your target population?**

    IF YES:

    - Please describe the training you provided.
    - Why did you decide to provide it?
    - How helpful was the training?

32. **Have your community partnerships been implemented as originally planned?**

    IF NO:

    - What has changed and why has it changed?

33. **How often do you communicate with the community partners and what form does the communication take (meetings, phone calls, emails, referrals)? What do you typically communicate about? How well does communication with partners work?**

34. **In your opinion, what aspects of your community partnerships have worked well, and what has been challenging?**

    FOLLOW-UP:

    - What strategies have you used to work through the challenges?
    - How well have these strategies worked?

35. **Based on your experience with the Oral Health Initiative, are there other kinds of partners that would have been helpful?**

    IF YES:

    - What types of partners and why?

36. **If you could, is there anything you would change about your partnerships or partnership agreements?**

    - IF YES:
    - What would you change and why?

37. **What is the potential for sustaining these partnerships after grant funding ends?**

38. **What advice would you give to other programs about selecting and working with community partners on a similar oral health initiative? In developing and sustaining relationships with partners over time?**

SERVICE DELIVERY (25 minutes)

Now let's talk about your experiences with providing or arranging services through the Oral Health Initiative. We'll start with a discussion of oral health risk assessments and exams, and then talk about clinical preventive and treatment services.

[NOTE TO SITE VISITORS: IF STAFF DISCUSS ANY MATERIALS OR TOOLS THAT YOU WOULD BE ABLE TO COLLECT, INQUIRE ABOUT RECEIVING COPIES]

Risk Assessment and Clinical Services

39. During the telephone interview, you said that your program did the following to assess children's oral health needs: [FILL IN TYPE OF ASSESSMENT, WHO CONDUCTS IT, AND TOOL USED]. **Have you made any changes to the way risk assessment is conducted?**

    [PROBES: The type of assessment, who conducts the assessment, or the assessment tool used?]

    IF YES:

    - What are the changes and why did you make them?

    FOLLOW-UP:

    - How do you define risk assessment? What does your program categorize as **a risk assessment?**

40. During the telephone interview, you reported the following uses of the risk assessment results: [FILL IN FROM TELEPHONE INTERVIEWS]. **Have you changed the way that risk assessment results are used?**

    IF YES:

- What are they changes and why did you make them?

41. During the telephone interview, you reported providing [LIST **PREVENTIVE SERVICES** FROM TELEPHONE INTERVIEW NOTES.] **Has this changed?**

    IF YES:

    - How and why?
    - Which services are provided by your program and which are provided by partners?
    - Where are the services provided?

42. During the telephone interview, you reported providing [LIST **TREATMENT SERVICES** FROM TELEPHONE INTERVIEW NOTES.] **Has this changed?**

    IF YES:

    - How and why?
    - Which services are provided by your program and which are provided by partners?
    - Where are the services provided?

43. **Which treatment and preventive services do you provide to children, pregnant women, and other family members?**

    FOLLOW-UP:

    - Has this changed from your original plan for the initiative?
    - If so, how and why did it change?

44. **How receptive have families been to the clinical preventive and treatment services you provide through the Oral Health Initiative?**

    FOLLOW-UP:

    - How has their receptivity changed over time?
    - If receptivity has improved, what have you done to improve it?

Services to Support Access to Dental Services

45. During the telephone interview, you described the following referral system/no referral system: [FILL IN FROM TELEPHONE INTERVIEW]. **How well has the referral system worked? Has it changed over time?**

    IF YES:

    - How has it changed and why?

46. **Do you keep track of treatment outcomes and needed follow-up services?**

IF YES:

- How do you do this?

47. **Do you provide services to help families access needed preventive and treatment services?** [PROBES: Help them make appointments, provide transportation, or provide translation services?]

    IF YES:

    - Who provides these services?

48. **Does your program help families establish dental homes for their children?**

    IF YES:

    - How do you do this?
    - Has this changed over time, and if so how?
    - What is your definition of a dental home?

Oral Health Education

49. During the telephone interview, you reported providing the following education and skills-building services to parents about oral health promotion: [FILL IN FROM TELEPHONE INTERVIEW NOTES]. **Have you made any changes to these activities?**

    [PROBES: the content of the educational messages, who delivers these services, or where they are delivered (for example, during parent meetings, home visits, or by distributing written materials)?]

    IF YES:

    - What changes have you made and why?

50. **IF PROGRAM SERVES PREGNANT WOMEN**: During the telephone interview, you reported providing the following education and skills-building services specifically to pregnant women: [FILL IN FROM TELEPHONE INTERVIEW NOTES]. **Have you made any changes to these activities?**

    IF YES:

    - What changes have you made and why?

51. During the telephone interview, you reported providing the following education and skills-building activities to children: [FILL IN FROM TELEPHONE INTERVIEW NOTES]. **Have you made any changes to these activities?**

    [PROBES: the content of the educational messages, who delivers these services, or how they are delivered (for example, classroom activities or home visits)?]

IF YES:

- What changes have you made and why?

52. During the telephone interview, you reporting using [**NAME OF CURRICULUM/NO CURRICULUM**] to provide oral health education to children and families. **Were using this curriculum before the OHI? Has the curriculum you're using changed?**

FOLLOW-UP:

- What curriculum are you using now and why did you choose it?
- Have you changed or adapted portions of the curriculum to better meet your needs?
- If so, how have you changed it and why?
- If you stopped using a prior curriculum, why did you stop?

53. **How well do you think the curriculum is working? Do you have suggestions for improving it?**

54. During the telephone interview, you reported providing [**LIST ORAL HYGIENE SUPPLIES/NO ORAL HYGIENE SUPPLIES** FROM TELEPHONE INTERVIEW NOTES]. **Has this changed**?

IF YES:

- How and why?

IF PROGRAM PROVIDES SUPPLIES:

- What types of supplies are you providing now, and to whom?
- How do you provide them and how often?
- Do parents receive training on how to use the supplies?

55. **To what extent have you tailored education and other non-clinical services to the needs and cultural norms of your target population for the Oral Health Initiative?**

FOLLOW-UP:

- Can you please provide some examples?
- Have you seen evidence that these strategies have been effective (for example, increased attendance at educational events or trainings)?

56. **How receptive have families been to the educational services you provide through the Oral Health Initiative?**

FOLLOW-UP:

- How has their receptivity changed over time?
- Do you think the education and training has resulted in any changes in families' oral health practices?

- If yes, can you give me some examples?

SUSTAINABILITY (5 minutes)

Now let's talk about the future of the Oral Health Initiative.

57. **What do you think is the future of your Oral Health Initiative (or your current model for providing oral health services)? Will you be able to sustain the services when grant funding ends?**

58. **What services could your program continue to provide without grant funding, and which services would you have to discontinue?**

    FOLLOW-UP:

    - **Were you providing any of these services before the OHI? If so, which ones and will anything about these services change after the OHI ends?**
    - **To what extent are the services provided to children and families through the Oral Health Initiative reimbursable through insurance?**

59. **Will you be able to sustain the referral systems developed for the initiative after grant funding ends?**

60. **Will you be able to continue helping children and families find dental homes?**

61. **What potential funding sources are available to sustain the services after grant funding ends?**

IMPLEMENTATION LESSONS (10 minutes)

I'd like to wrap up the discussion by hearing your views on the successes and challenges of the Oral Health Initiative and any lessons you've learned.

62. **Do you have systems in place for monitoring your progress in achieving your goals and objectives for the Oral Health Initiative?**

    IF YES:

    - Can you please describe these systems?
    - How helpful have they been?
    - Have you used them to make program improvements?
    - If yes, can you give me some examples?

63. **At this point, how much progress have you made toward meeting your goals and objectives for the Oral Health Initiative?**

64. **What has the Oral Health Initiative grant enabled your program to do that you were not able to do before?**

    PROBES:

    - Add new services?
    - Provide oral health services to more children? To other family members?
    - To add new community partners?
    - To establish referral systems?
    - To provide more training to staff, families, or partners?
    - Other?

65. **Have you been able to use the Oral Health Initiative grant to leverage other resources to support oral health activities in your program and/or community?**

    IF YES:

    - How did you do this and what resources did you leverage?

66. **What have been your most important successes so far?** What are you most proud of?

67. **What are the most significant challenges your program has faced so far?**

68. **What strategies have you used to address these challenges? How well do you think these strategies are working?**

69. **What are the most important lessons your program has learned about providing oral health services?**

70. **What changes, if any, would you like to make to your Oral Health Initiative and why?**

71. **What advice would you give to other programs that want to implement a similar initiative?**

72. **Is there anything else you would like to add before we end the discussion?**

Thank you again for participating in the interview.

Head Start Oral Health Initiative
Key Staff Site Visit Interview Protocol

INTRODUCTION (5 minutes)

Thank you for agreeing to participate in this interview. My name is _____ and I work for [MATHEMATICA POLICY RESEARCH/ALTARUM], an independent research firm. As you know, we are conducting a study for the Administration on Children and Families about Head Start agencies' experiences implementing the Head Start Oral Health Initiative. Findings from the study will be helpful to other Head Start agencies implementing similar initiatives.

Everything you tell me is confidential. I would like you to feel comfortable giving your opinions and impressions. The information we gather will be used to write a report for the Administration for Children and Families about programs' experiences implementing the Head Start Oral Health Initiative, including successes, challenges, and lessons learned by grantees. Our report will describe the experiences and viewpoints expressed by staff across grantees, but specific comments will not be attributed to specific individuals or programs. No individual staff member will be quoted by name.

Do you have any questions before we get started?

About You

To begin, I'd like to learn about your role in the Oral Health Initiative.

1. What is your official job title? What are your primary responsibilities?
2. **How long have you worked for [GRANTEE]?**
3. **How long have you held your current position?**
    - What other positions have you held within the agency?
4. **Prior to your current position, have you had experience providing oral health services?**

COMMUNITY AND FAMILY CHARACTERISTICS (10 minutes)

Let's talk about your community and the characteristics of families and children targeted for the Oral Health Initiative.

5. **In your opinion, what are the main barriers families in your community face in accessing oral health care services, and particularly oral health care for young children?**

6. **What is the availability of oral health care providers in the community?**

   - General dentists?
   - Pediatric dentists?
   - Other providers?
   - Do **oral health care providers in your community accept Medicaid?**
   - Are **they willing to serve young children**?

7. What is the availability of health care, transportation, and other services for children and families?

8. **Tell me about the families and children you serve through the Oral Health Initiative.**

   - Are you providing services to infants and toddlers, preschoolers, pregnant women, other family members?

9. **In general, what are families' cultural norms and practices related to oral health care?**

   - Oral health care beliefs and practices for young children?
   - What is the prevalence of practices that threaten oral health, such as putting babies to bed with bottles, using pacifiers past age 3, giving children sweetened drinks, other?

STAFF TRAINING (10 minutes)

Tell me about the training you have received for the Oral Health Initiative.

10. **Did you receive any orientation or training for the Oral Health Initiative before you began providing services to children and families? If yes, please tell me about the training.**

    - What topics were covered, and who provided the training?
    - How long did the training last?

11. **Have you received any training for the Oral Health Initiative since you began working on it?**

    - If yes, please tell me about the training.
    - What topics were covered, and who provided the training?
    - How long did the training last?

12. Have you received any training, either before or after you started working on the Oral Health Initiative, on how to conduct visual inspection of teeth and mouth to identify children who need follow-up care?

13. **How helpful has this training been for the work you do on the Oral Health Initiative?**

    - Which training was the most helpful, and why?
    - What were the most important things you learned?

14. **Are there other topics related to the Oral Health Initiative on which you would like more training?**

15. If you were to give advice to another program that was trying to start up a similar oral health initiative, based on your experience, is there any training you think is essential for staff who will work on the initiative?

SERVICE DELIVERY (25 minutes)

Now let's talk about your experiences providing services through the Oral Health Initiative.

16. **To start, what are your main goals for the work you do on the Oral Health Initiative?**

17. **Were you involved in designing the Oral Health Initiative? If so, tell me about the process.**

Risk Assessment and Preventive and Treatment Services

18. **Are you involved in conducting or arranging for routine oral health assessments (such as clinical assessments, parent questionnaires, assessment of medical history, assessment of demographic risk factors)?**

    - Who conducts these assessments (for example, you or other Head Start staff, dentists, dental hygienists, nurses, health coordinators, others)?

19. **Do you use a formal oral health risk assessment tool?**

    - If so, which tool do you use and how was it selected?
    - How well do you think the tool works?

20. **How does your program use the results of the risk assessments?**

    - For example, are oral health care providers able to use the assessment results to make a diagnosis or develop a treatment plan based on the assessment?

21. **Do you have suggestions for improving your program's oral health risk assessment tools or process?**

22. **Are you involved in providing or arranging for provision of other preventive services through the Oral Health Initiative?**

    - For example do you provide or arrange for cleanings, sealants, fluoride treatments, or other preventive services?
    - What is your role in providing these services?
    - Which services are provided by your program and which are provided by partners?
    - Where are the services provided?
    - How are the costs of these services covered (for example, program grant funds, insurance reimbursement, donated by provider)?

23. **Are you involved in providing or arranging for provision of treatment services through the Oral Health Initiative?**

    - What is your role in providing these services?
    - Which services are provided by your program and which are provided by partners?
    - Where are the services provided?
    - How are the costs of these services covered (for example, program grant funds, insurance reimbursement, donated by provider)?

24. **Which services do you provide to siblings, pregnant women, and other family members?**

25. **How receptive have families been to the preventive and treatment services you provide through the Oral Health Initiative?**

    - How has their receptivity changed over time?

Services to Support Access to Dental Services

26. **Does your initiative have referral systems in place for helping families access needed clinical services? If so, please tell me about these systems.**

    - What is your role in the referral process?
    - How well does the referral system work?
    - Would you make changes to it if you could?

27. **Does your program keep track of treatment outcomes and needed follow up services? If so, how this done?**

    - What is your role in this process?
    - Is the tracking system helpful to you in your work with children and families?

- If so, how is it helpful?

28. **Do you provide or arrange for services to help families access needed clinical services, such as help them make appointments, provide transportation, or provide translation services?**

    - If so, what is your role in this process?
    - Approximately what proportion of children and families receive these services?
    - Without the services, would families still be able to access needed dental care?

29. **Does your program help families establish dental homes for their children?**

    - If so, what is your role in this process?
    - How easy or difficult is it to help families establish dental homes?
    - What are the main barriers to establishing dental homes?
    - Which oral health providers serve as dental homes for the children and families in your program?
    - What is your definition of a dental home?

Oral Health Education

30. **Are you involved in providing education and skills-building activities to parents about oral health promotion?**

    - If so, please tell me about the main educational messages you deliver and how often you provide these services. How are the educational messages delivered and where (for example, during parent meetings, home visits, or by distributing written materials)?
    - Do you instruct parents on how to do visual inspections of children's teeth using such techniques as "Lift the Lip"?

31. **Are you involved in providing education and skills-building on oral health promotion specifically to pregnant women?**

    - If so, tell me about the education you provide, how these services are delivered, and how often.
    - Are the educational messages different from those provided to other Head Start parents? If so, how?

32. **Are you involved in providing oral health education and skills-building activities to children?**

    - If so, tell me about these services and how often you provide them.

- How are the educational messages delivered (for example, classroom activities, home visit)?

33. **IF STAFF ARE INVOLVED IN EDUCATIONAL ACTIVITIES: Do you use a curriculum to provide oral health education to children and families?**

    - **If so, what curriculum do you use and why did you choose it?**
    - **How well do you think the curriculum is working?**
    - Is it a good match for the needs of the children and families you work with?
    - Are there changes you would make to it if you could?

34. **Do you provide oral hygiene supplies to children and families?**

    - If so, what types of supplies do you provide, and to whom?
    - How do you provide them and how often?
    - Do you provide parents with training on how to use the supplies?
    - Do you think families use these supplies?
    - What evidence do you have that the supplies are being used?

35. **To what extent have you tailored education and other non-clinical services to the needs and cultural norms of your target population for the Oral Health Initiative?**

    - Can you please provide some examples?

36. **How receptive have families been to the screening and educational services you provide through the Oral Health Initiative?**

    - How receptive are parents, pregnant women, and children?
    - How effective do you think your approach to education and training is to changing families' oral health care practices?
    - What are families doing differently after participating in these education and skills-building activities?
    - How has their receptivity changed over time?

WORKING WITH COMMUNITY PARTNERS (10 minutes)

I'd like to shift gears now and talk about your interaction with community partners on the Oral Health Initiative.

37. **Do you work with community partners on the Oral Health Initiative?**

    - **If yes, what types of partners do you work with?**

38. **What is your role in working with community partners?**

- For example, do you make referrals to them, follow up on treatment outcomes and plans, coordinate services, or plan joint parent education events on oral health?

39. **IF STAFF MAKE REFERRALS TO PARTNERS: How do you make referrals to community partners for services?**

    - Do you receive information from them about treatment and needed follow up?
    - How do these referral systems work?

40. **Have you provided training to community partners about providing oral health services to your target population?**

    - If yes, please describe the training you provided.
    - Why did you decide to provide it, and how helpful was the training?

41. **How often do you communicate with community partners and what form does the communication take (meetings, phone calls, emails, referrals)?**

    - What do you typically communicate about?
    - How well does communication with partners work?

42. **In your opinion, how are the partnerships going so far?**

    - What has worked well about the partnerships, and what has been challenging?
    - What strategies have your used to work through the challenges?
    - How well have these strategies worked?

43. **Based on your experience with the Oral Health Initiative, are there other kinds of partners that would have been helpful?**

    - If so, what types of partners and why?

44. **If you could, is there anything you would change about the partnerships or partnership agreements?**

    - If so, what would you change and why?

IMPLEMENTATION LESSONS (15 minutes)

45. **At this point, how much progress have you made toward meeting your goals for the Oral Health Initiative?**

46. **What have been your most important successes so far?**

    - What are you most proud of?

47. **What are the most significant challenges your program has faced so far?**

48. **What strategies have you used to address these challenges?**

- How well do you think these strategies are working?

49. **What are the most important lessons your program has learned about providing oral health services?**

50. **What changes, if any, would you like to make to your Oral Health Initiative and why?**

51. **What advice would you give to other programs that want to implement a similar initiative?**

52. **Is there anything else you would like to add before we end the discussion?**

Thank you again for participating in the interview.

Head Start Oral Health Initiative
Community Partner Site Visit Interview Protocol

INTRODUCTION (10 minutes)

Thank you for agreeing to participate in this interview. My name is _____ and I work for [MATHEMATICA POLICY RESEARCH/ALTARUM], an independent research firm. As you know, we are conducting a study for the Administration on Children and Families about Head Start agencies' experiences implementing the Head Start Oral Health Initiative. Findings from the study will be helpful to other Head Start agencies implementing similar initiatives.

[IF RESPONDENT IS NOT FAMILIAR WITH THE OHI: In 2006, the Office of Head Start invested $2 million in grants to 52 Head Start programs nationwide to implement the Head Start Oral Heath Initiative (OHI). OHI grantees receive supplemental funding over a four-year period to develop, implement, and disseminate oral health promotion models that meet the needs of the communities and populations they serve.]

Everything you tell me is confidential. I would like you to feel comfortable giving your opinions and impressions. The information we gather will be used to write a report for the Administration for Children and Families about programs' experiences implementing the Head Start Oral Health Initiative, including successes, challenges, and lessons learned by grantees. Our report will describe the experiences and viewpoints expressed by staff across grantees, but specific comments will not be attributed to specific individuals or programs. No individual staff member will be quoted by name.

Do you have any questions before we get started?

About You

To begin, I'd like to ask some questions about you and your agency.

1. What is your official job title, and what are your primary responsibilities?
2. **How long have you worked for [AGENCY]?**
3. **How long have your held your current position? What other positions have you held within the agency?**

Your Agency [ASK FOR A BROCHURE OR WEBSITE WITH THIS INFO.]

4. **What is your organization's primary mission?**

5. **What are the main programs your agency operates and services you provide? What oral health services do you provide?**

6. **What are the main characteristics of your agency's client population?**

COMMUNITY AND FAMILY CHARACTERISTICS (5 minutes)

Now I have a few questions about the community and the children and families you serve through your partnership with the Head Start Oral Health Initiative.

7. **What is your impression of the availability of oral health care providers in the community?** [PROBES: General dentists? Pediatric dentists? Other providers?]

   FOLLOW-up:

   - Do oral health care providers in your community accept Medicaid?
   - Are they willing to serve young children?

8. What is your impression of the availability of other services for children and families, such as health care, transportation, and other social services?

9. **In your opinion, what are families' main barriers to accessing oral health care?**

10. **Tell me about the children and families who you serve through the Oral Health Initiative.**

    PROBES:

    - What are their primary oral health care needs?
    - What are their cultural norms and practices related to oral health care?
    - Oral health care beliefs and practices for young children?
    - What is the prevalence of practices that threaten oral health, such as putting babies to bed with bottles, using pacifiers past age 3, giving children sweetened drinks, other?

11. **Did you have experience providing services to Head Start children and families before the Oral Health Initiative began, or was this a new experience for you?**

    IF NEW:

    - Has it been easier or more difficult that you thought it would be?

PARTNERSHIP WITH THE HEAD START ORAL HEALTH INITIATIVE (10 minutes)

Let's talk about your partnership with the Head Start program.

12. **Did your partnership with Head Start begin with the Oral Health Initiative, or were you already partnering with the program before this initiative began?**

    IF PREVIOUS PARTNERSHIP:

    - Tell me about your previous partnership? What was your role?

13. **How did your organization become involved in the Oral Health Initiative?**

14. **Why did your agency decide to enter into the partnership? What interested your agency in the Oral Health Initiative?**

15. **Was your agency involved in the process of designing the Oral Health Initiative, or did your involvement begin after the Head Start program received the grant?**

16. **Tell me about your role in the Oral Health Initiative. What are the main services you provide?**

STAFFING AND COORDINATION (10 minute)

Let's talk about staff from your agency that provide services through the partnership and how you coordinate the work with Head Start.

17. **How many staff from your agency provide services through partnership?**

    FOLLOW-UP:

    - What proportion of their time do they spend on it?
    - What are their job titles and qualifications?

18. **How do you coordinate the work your agency does on the Oral Health Initiative with the Head Start program?**

    FOLLOW-UP:

    - Do Head Start staff refer children and families to you?
    - How does this work?

19. **How often do you communicate with the Head Start program and what form does the communication take (meetings, phone calls, emails, referrals)?**

    FOLLOW-UP:

    - What do you typically communicate about?
    - **How well does communication for the partnership work?**
    - **Do you have suggestions for improving it?**

20. **Has your agency received any training from the Head Start Oral Health Initiative related to providing services to Head Start children and families?**

IF YES:

- Please describe the training you received.

- Who provided the training?

- Was it helpful? Why or why not?

FOLLOW-UP:

- **Has your agency provided any training for Head Start staff? If so, please describe the training.**

SERVICE DELIVERY (15 minutes)

Now I'd like to hear about the services you provide to Head Start children and families through the Oral Health Initiative.

[NOTE TO INTERVIEWER: USE RESPONSE TO QUESTION #6 TO GUIDE THE QUESTIONS ASKED IN THIS SECTION]

Risk Assessments:

21. Do you conduct routine oral health risk assessments using clinical or other means (such as clinical assessments, parent questionnaires, assessment of medical history, assessment of demographic risk factors)?

IF YES:

- Do you use a formal oral health risk assessment tool?

- Which tool do you use and why did you select it?

22. Do you use information from routine oral health risk assessments, whether you or someone else conducts them, to make diagnoses or develop treatment plans for Head Start children and/or other family members?

Preventive Services:

23. Do you provide preventive services to children and families through the Oral Health Initiative?

IF YES:

- If so, what services do you provide? [PROBES: Do you provide clinical exams, cleanings, fluoride treatments, or other preventive services?]

- Which services are provided by your program and which are provided by partners?

- Where are the services provided?

Treatment Services:

24. Do you provide treatment services to Head Start children and families?

    IF YES:

    - What types of services do you provide?

    - Where do you provide them?

IF Preventive and/or Treatment:

25. How are the costs of risk assessment and other preventive and treatment services you provide to Head Start children and families covered?

    PROBES:

    - Payment by program?

    - Insurance reimbursement?

    - Services donated?

    - Other?

26. Are you involved in keeping track of treatment outcomes and needed follow-up services for Head Start children and families? Do you report treatment outcomes to the Head Start program?

    IF YES:

    - How do you do this?

Support Services:

27. Do you provide services to help Head Start families access needed services?

    PROBES:

    - Help them make appointments, provide transportation, or provide translation services?

    IF YES:

    - How do you decide which families need these services? Do you receive referrals from Head Start?

Dental Homes:

28. Do you provide or arrange for dental homes for Head Start children and families?

    IF YES:

    - How do you do this?
    - What is your definition of a dental home?

Education or Skills-building Activities:

29. Do you provide education and skills-building activities to families about oral health promotion?

    IF YES:

    - How do you do this? [PROBES: One-on-one with parents, during home visits, during parent education workshops, other?]
    - What are the main educational messages you provide?
    - Do you use a curriculum to provide oral health education to families? If so, what curriculum do you use and why did you choose it?
    - Do you instruct parents on how to do visual inspections of children's teeth using such techniques as "Lift the Lip"?

Supplies:

30. Do you provide oral hygiene supplies to children and families?

    IF YES:

    - What types of supplies do you provide, and to whom?
    - How do you provide them and how often?
    - Do parents receive training on how to use the supplies?

ALL:

31. **To what extent have you tailored education and other non-clinical services to the needs and cultural norms of your target population for the Oral Health Initiative? Can you please provide some examples?**

32. **In your experience, how receptive have Head Start families been to the services you provide through the Oral Health Initiative? How has their receptivity changed over time?**

33. **In addition to working with Head Start children and families, does your agency contribute supplemental funding or other in-kind resources to the Head Start Oral Health Initiative?**

LESSONS LEARNED (10 minutes)

At this point, I'd like to hear about the lessons you've learned so far from your involvement in the Head Start Oral Health Initiative.

34. **How is the partnership going so far? What as worked well, and what has been challenging?**

35. **Have you been able to implement the partnership as planned?**

    IF CHANGES:

    - What changes did you make and why?

36. **Do you have suggestions for improving the partnership?**

    PROBES:

    - Improving referral systems?
    - Communication with Head Start?
    - Other suggestions?

37. **How long do you think your partnership with Head Start will last? Will you continue the partnership after grant funding for the Oral Health Initiative ends?**

38. **What advice would you give to other organizations like yours about partnering with Head Start on a similar oral health initiative?**

39. **In your opinion, what have been the most important successes of the Head Start Oral Health Initiative so far?**

40. **What are the most significant challenges the Oral Health Initiative has faced?**

    FOLLOW-UP:

    - What strategies have been used to address these challenges?
    - How well do you think these strategies are working?

41. **What lessons has your agency learned about providing oral health services to Head Start children and families? What advice would you give to other service providers about working with this population?**

42. **Do you have suggestions for improving the Head Start Oral Health Initiative in your community? Are there changes you would make if you could? Is there additional training from Head Start that would have been helpful?**

43. **Is there anything else you would like to add before we end the discussion?**

Thank you again for participating in the interview.

Head Start Oral Health Initiative
Parent Focus Group Discussion Guide

INTRODUCTION (10 minutes)

Thank you very much for agreeing to participate in this discussion. Your participation is very important to the study. I'm _____ and I work for [MATHEMATICA POLICY RESEARCH/ALTARUM], an independent research firm/organization.

We are conducting a study for the federal Administration for Children and Families to learn about the Head Start Oral Health Initiative [OR LOCAL NAME FOR OHI]. As part of the study, we want to learn the oral health care services that children and families are receiving through Head Start and about your opinions about the services.

[IF PARENTS ARE NOT FAMILIAR WITH OHI: In 2006, the Office of Head Start gave special grants/funding to 52 Head Start, including your child's program, to develop and provide oral health services that meet the needs of the children and families they serve.]

- I am going to moderate the discussion. It is really important for everyone to speak up so we can have a lively and informative discussion.
- We ask that you respect each other's point of view. There are no right or wrong answers. You are the experts – we want to learn from you.
- It will be helpful if you speak one at a time, so everyone has a chance to talk.
- We have many topics to cover during the discussion. At times, I may need to move the conversation along to be sure we cover everything.
- We also ask that you not repeat any of the discussion you've heard after you leave today.
- We also want you to know that being part of this discussion is up to you, and you can choose to not answer a question if you wish. Being part of this discussion will also not affect the services you receive from Head Start.
- I would like to tape-record our discussion. I am taping our discussion so I can listen to it later when I write up my notes. No one besides our research team will listen to the tape. Everything you say here is private. When we write our report, we will include a summary of people's opinions, but no one will be quoted by name.
- If you want to say anything that you don't want taped, please let me know and I will be glad to pause the tape recorder. Does anybody have any objections to being part of this focus group or to my taping our discussion?
- (2) The discussion will last about 1½ hours, and we will not take any formal breaks. But please feel free to get up at any time if you need to.

Once again, thank you for coming today. Are there any questions before we get started?

1. **Let's go around the room and introduce ourselves. Please tell us:**

   - Your first name
   - The name of age of your child who is enrolled in Head Start or Early Head Start (or Migrant/Seasonal Head Start)
   - How long your child has been enrolled in Head Start or Early Head Start (or Migrant/Seasonal Head Start)

ACCESS TO SERVICES IN THE COMMUNITY (20 minutes)

To begin, I'd like to ask some questions about how easy or difficult it is for you get oral health care and other services you need in the community.

2. **In your experience, how easy or difficult is it to find dentists or other dental providers who are willing to treat children under the age of 5? Under the age of 3?**

3. **Overall, what are the main problems you face in arranging dental services for your children?**

   PROBES:

   - Finding dentists?
   - Waiting lists for appointments?
   - Transportation to dentists' offices?
   - Few dentists located near where you live?
   - Paying for dental care?
   - Finding dentists who speak your language?
   - Other problems?

4. **How do you pay for dental care for your child?**

   PROBES:

   - Dental insurance, such as Medicaid or SCHIP?
   - Does Head Start pay for dental services?
   - Are dentists available who provide free or low-cost dental care?

5. **Can I see a show of hands, how many of you have a single place you can go to get dental treatment for your children?**

   FOR THOSE WHO HAVE A SINGLE DENTAL PROVIDER:

   - How did you find this provider?
   - Did Head Start help you find this dentist?
   - How do you pay for the services?
   - Are there services that your child needs that this dentist will not provide?
   - About how often does you child visit this dentist?

6. How easy or difficult is it for you to find other health services your children need, such as medical care?

   IF DIFFICULT:

   - What are the main problems you have trying to find doctors and other medical providers?
   - Overall, would you say it is easier or more difficult to arrange medical or dental services for your children? Why?

PARENTS' ATTITUDES AND BELIEFS ABOUT ORAL HEALTH CARE (15 minutes)

Now I'd like to talk about your views on the dental services that you and your children need.

7. **Tell me about how you take care of your children's mouth and teeth at home.**

   PROBES:

   - Between birth and age 1?
   - At age 1?
   - At age 3?
   - At age 5?

8. **At what age did your child receive his or her first dental exam?**

   FOLLOW-UP:

   - What age do you think a child should receive their first exam? Why?

9. **Since the first exam, how often does your child see a dentist?**

   FOLLOW-UP:

- How often do you think a child under age 5 should see a dentist? Why?
- Assuming the services are available, how often to you think adults should see a dentist? Why?

10. **At what age did you begin brushing your child's teeth, or if your child was old enough, did your child begin brushing his or her teeth?**

    FOLLOW-UP:

    - At what age do you think a child should begin brushing his or her teeth? Why?

11. **Do you look at your children's mouth and teeth at home? If so, tell me how you do this. About how often do you do this?**

12. **Has anyone ever talked to about how to take care of your children's mouth and teeth?**

    IF YES:

    - Has your child's doctor ever talked to you about how to take care of your child's mouth and teeth, or about when your child should begin seeing a dentist?
    - Please tell me what advice the doctor gave you.

RECEIPT OF ORAL HEALTH SERVICES (25 minutes)

At this point I'd like to hear about the dental services you and your child enrolled in Head Start are receiving.

13. **Can I see a show of hands, has someone examined your Head Start child's mouth at least once (ever)? In the past six months?**

    IF YES:

    - Who did the exam?

    PROBES:

    - A dentist?
    - A dental hygienist?
    - A pediatrician or doctor?
    - Someone who works for Head Start?
    - Where did this dental exam happen?

    PROBES:

    - At a dentist's office or clinic?
    - At a pediatrician or doctor's office?

- At Head Start?
- At another location?
- Were you able to be present, or did you receive information from the exam about your child's dental health?

14. **Did any of your children need follow-up services or treatment?**

IF YES:

- What did they need?
- How easy or difficult was it for you to arrange these services for your child?
- Did Head Start help you, for example, by helping you find a dentist, make an appointment, get to the dentist's office, or pay for the services?

15. **Can I see a show of hands, has your Head Start child seen a dentist or another dental provider in the past six months?**

IF YES:

- For what reason—an exam, a cleaning, for treatment?
- If it was for treatment, what kind of treatment did your child receive?

16. **At this point, are you able to arrange the dental services you think your child needs?**

PROBES:

- Regular check-ups and cleanings?
- Treatments?

17. **Can I see of show of hands, how many of you have seen a dentist in the past six months?**

IF YES:

- What was your reason for seeing a dentist? [PROBES: Check-up and cleaning? Treatment?]
- How easy or difficult was it to find a dentist?
- Did Head Start help you?

18. **How often do you usually go to the dentist?**

FOLLOW-UP:

- Do you get regular check-ups, or do you see a dentist only when you have problems with your teeth?
- Where do you usually go for dental services?

- Do you have a single place you can go to get dental treatment for yourself?
- If so, how did you find this provider? Did Head Start help you?
- How do you pay for the services?

19. **What are the primary reasons you do not go to the dentist?**

PROBES:

- Is it because you don't have dental insurance?
- You can't take time off from work?
- You don't have transportation?
- You've had bad experiences with dentists in the past?
- You are afraid to go to the dentist?

20. **Has Head Start ever helped you with the following for your child:**

- **Find a dentist or other dental provider?**
- **Make an appointment with a dentist or dental provider?**
- **Provide transportation to a dental appointment?**
- **Provide translation services during a dental appointment?**
- **Help you pay for dental services?**

FOLLOW-UP:
- How about for you or other family members?
- If so, please tell me what they did to help.

21. **Overall, how satisfied are you with the help you received from Head Start to arrange dental services for your Head Start child? For yourself? For other family members?**

22. **Do you have suggestions for how Head Start could improve these services? Are there other things Head Start could do to help you get the dental services you and your family need?**

ORAL HEALTH EDUCATION (20 minutes)

Now I'd like to talk about the information you and your child enrolled in Head Start have received about how to take care of your teeth.

23. **In the past year, has anyone from Head Start talked to about how to take care of your children's mouth and teeth?**

    IF YES:

    - Please tell me what advice Head Start gave you.

24. **In the past year, have you gone to any workshops or parent trainings about oral health?**

    IF YES:

    - What did you talk about during that event?

    - Who provided the information?

    - Did you receive any information in writing about oral health at that event?

25. **Have you received information about oral health in any other way, such as during a home visit or during a visit to a dentist's office?**

    IF YES:

    - What did you talk about and who provided the information?

26. **Have you received any written information such as pamphlets or handouts, or videos about how to take care of your own or your children's teeth?**

    IF YES:

    - What did you learn from these materials?

    IF SOME FAMILIES DO NOT SPEAK ENGLISH AS A FIRST LANGUAGE:

    - Did you receive these materials in English, or another language?

27. **Did any of the educational activities and materials provide you with instruction on how to examine your child's teeth and mouth at home, and what to look for?**

    IF YES:

    - Tell me about what you learned.

28. **In the past year, do you know if your Head Start children received any education or training on how to take care of their mouth and teeth, such as learning how to brush, from Head Start?**

    IF YES:

- Did this happen in a Head Start classroom, during a home visit, or during a visit to a dentist?

- Tell me about what your child learned.

29. **Can I see a show of hands, have you ever received supplies from Head Start for taking care of your children's mouth and teeth (such a toothbrush, toothpaste, other)?**

    IF YES:

    - Do you receive these supplies regularly, occasionally, or just once?

    - Did you receive any instruction about how to use the supplies?

    - Who provided the instruction?

30. **Overall, how helpful has the education and training on oral health you have received from Head Start been for you? Did you learn anything new from this information? If so, what did you learn? How helpful do you think the education and training has been for your children?**

31. **Is there anything you would change about the oral health education and training that Head Start provides? Do you have any suggestions for improving this component of the program?**

CONCLUSION

Those are all of the questions I had for you today. **Is there anything else about dental services provided by Head Start that you think I should know about? Anything else you would like to mention before we end?**

Thank you for taking the time to share your thoughts and experiences. Our discussion has been very useful for helping me learn more about the Head Start Oral Health Initiative.

APPENDIX B

RECORD-KEEPING SYSTEM DATA FIELDS

Table B.1. Child and Family Characteristics Screen of the Program Record-Keeping System: Data Fields and Response Categories

Data field	Response Category	Response Type
Primary Recipient	Child	Drop-down list
	Pregnant woman	
Child or Woman's Name	Open field	Open field
Identification Number	6-digit number	System will generate
Child's Date of Birth	Open date field	Date field
Due Date (if pregnant woman)	Open date field	Date field
Gender of Child	Male	Drop-down list
	Female	
Ethnicity of the Child	Hispanic or Latino	Check Box
	Not Hispanic or Latino	
Race/ethnicity of the Child	American Indian or Alaska Native	Check boxes (all that apply)
	Asian	
	Black or African American	
	Native Hawaiian or other Pacific Islander	
	White	
Whether Child/Pregnant woman Has Dental Insurance coverage	Yes	Check Box
	No	
If Yes, Type of Coverage	Private insurance	Drop-down list
	Medicaid	
	SCHIP	
	Indian Health Services	
	Other	
Whether Child/Pregnant woman Has Ever Had a Dental exam	Yes	Check Box
	No	
If Yes, Date If Known	Open date field (month/year)	Date field (month/year)
Program type	Early Head Start	Check boxes (all that apply)
	Head Start	
	Migrant/Seasonal Head Start	
	Center-based	
	Home-based	
	Other	
Head Start Enrollment Date	Open date field	Open date field
Oral Health Initiative Enrollment Date	Open date field	Open date field

TABLE B.1 *(continued)*

Data field	Response Category	Response Type
Exit Date	Open date field	Date field
Primary Caregiver's (Parent) Name[a]	Open field	Open field
Primary Caregiver's Date of Birth	Open date field	Date field
Primary Caregiver's Gender	Male	Drop-down list
	Female	
Primary Caregiver's Ethnicity	Hispanic or Latino	Check Box
	Not Hispanic or Latino	
Primary Caregiver's Race/Ethnicity	Asian	Check boxes (all that apply) Yes/No
	Black or African American	
	Native Hawaiian or other Pacific Islander	
	White	
Primary Language Spoken at Home	English	Drop-down list
	Spanish	
	Arabic	
	Other	
If Not English, How Well Primary Caregiver Speaks English	Very well	Drop-down list
	Well	
	Not well	
	Not at all	
Primary Caregiver's Relationship to the Child	Parent or stepparent	Drop-down list
	Grandparent	
	Other relative	
	Other nonrelative	

[a]All data fields on primary caregiver (parent) characteristics are completed for pregnant women when they are the primary targets of the intervention.

Table B.2. Community Partner Screen Of The Program Recordkeeping System: Data Fields And Response Categories

Data Field	Response Category	Response Type
Community Partner Name	Open field	Open field
Identification Number	6-digit number	System will generate
TYPE OF PARTNER	General dentist	Drop-down list
	Pediatric dentist	
	Dental hygienist	
	Dentistry school	
	Dental hygiene school	
	Pediatrician	
	Family practitioner	
	OB/GYN	
	Nurse practitioner	
	WIC program or clinic	
	Public health department	
	Other clinic	
	Hospital	
	Part B or C	
	Other service provider	
	Other	
Formal Partnership Agreement	Yes	Check box
	No	
If Yes, Date of Agreement	Open date field	Date field
Community Partner Prior to Oral Health Initiative	Yes	Check Box
	No	
Partnership End Date	Open date field	Date field

Table B.3. Services Screen Of The Program Recordkeeping System: Data Fields And Response Categories

Data Field	Response Category	Response Type
Name of Child/Pregnant Women	Select from list	List
Identification Number	6-digit number	System will insert
Date of Service	Open date field	Date field
Type of Service	Dental screening	Check Box (check all that apply)
	Clinical exam	
	Cleaning	
	Fluoride rinse	
	Fluoride varnish treatment	
	Fluoride tablets prescribed	
	Xylitol wipes	
	Root planing and scaling (preventive)	
	Anticipatory guidance	
	Oral health education	
	Fillings (1-2)	
	Fillings (2 or more)	
	Extractions (1-2)	
	Extractions (2 or more)	
	Steel crowns	
	Root canal	
	Bridge/dental implant	
	Root planning and scaling (therapeutic)	
	Treatment requiring hospitalization and/or sedation	
	Other	
Location of Services	At grantee site	Drop-down list
	Service provider office	
	Hospital	
	At home	
	Mobile van or mobile clinic	
	Other location	

Table B.3 *(continued)*

Data Field	Response Category	Response Type
Type of Service Provider	Grantee staff—Dental hygienist	Drop-down list
	Grantee staff—Health specialist	
	Grantee staff—Other	
	Community partner	
	Other community provider	
If Community Partner, Name of Partner	Select from list	Drop-down list
Identification Number	6-digit number	System will insert
If Other Community Provider, Type of Provider	General dentist	Drop-down list
	Pediatric dentist	
	Dental hygienist	
	Dentistry school	
	Dental hygienist school	
	Pediatrician	
	Family practitioner	
	OB/GYN	
	Nurse practitioner	
	WIC program or clinic	
	Public health department	
	Other clinic	
	Hospital	
	Part B or C	
	Other service provider	
	Other	
Referred to Service By Grantee	Yes	Check box
	No	
Support Services Provided	Yes	Check box
	No	
If Yes, Type of Service	Transportation	Drop-down box
	Helping making an appointment	
	Translation	
	Other	
If Yes, Service Provider	Grantee staff—Dental hygienist	Drop-down box
	Grantee staff—Health specialist	
	Grantee staff—Other	
	Community partner	
	Other community provider	

Table B.3 *(continued)*

Data Field	Response Category	Response Type
If Community Partner, Name of Partner	Select from list	Drop-down list
Followup Required	Yes	Check box
	No	
If Yes, Type of Followup	Referral	Drop down list
	Appointment	
	Treatment	
	Counseling	
	Other	
If Yes, Followup Action	Referral made	Drop down list
	Appointment pending	
	Followup competed	
If Completed, Date Completed	Open date field	Date field
Dental Home Established	Open date field	Date field
Type of Dental Home	Community partner	Drop-down list
	Other community provider	
If Community Partner, Select	Select from list	Drop-down list
If Other Provider, Type	Private dental office	Drop-down list
	Community health center	
	Mobile van or mobile clinic	
	University dental clinic	
	Other	

Table B.4. Dental Home Screen Of The Program Recordkeeping System: Data Fields And Response Categories

Data Field	Response Category	Response Type
Name of Child/Pregnant women	Select from list	List
Identification Number	6-digit number	System will insert
Dental Home Established	Open date field	Date field
Type of Dental Home	Community partner	Drop-down list
	Other community provider	
If Community Partner, Select	Select from list	Drop-down list
If Other Provider, Type	Private dental office	Drop-down list
	Community health center	
	Mobile van or mobile clinic	
	University dental clinic	
	Other	

Table B.5. Education and Supplies Screen of the Program Recordkeeping System: Data Fields and Response Categories

Data Field	Response Category	Response Type
Month/Year	Select from list	List
Parent Education Services Provided in Past Month	Yes	Check box
	No	
Parent Education Workshop Provided	Yes	Check box
	No	
If Yes, Number of Workshops Provided	Open field	Open field
If Yes, Total Number of Workshop Attendees	Open field	Open field
Parent Education Provided During Home Visits	Yes	Check box
	No	
If Yes, Number of Home Visits with Oral Health Education	Open field	Open field
Oral Hygiene Supplies Provided to Families in Past Month	Yes	Check box
	No	
If Yes, Total Number of Families Who Received Supplies	Open field	Open field
If Yes, Types of Supplies	Fluoride toothpaste	Check box (check all that apply)
	Toothbrush	
	Floss	
	Fluoride rinse	
	Xylitol gum	
	Xylitol wipes	
	Other supplies	
Educational Materials and Other Materials Provided to Classrooms	Yes	Check box
	No	
Parent Education Provided Through Written Materials Sent Home with Children	Yes	Check box
	No	
Staff Training Provided on Oral Health Education	Yes	Check box
	No	
If Yes, Total Number of Training Attendees	Open field	Open field
Oral Health Education Provided to Children	Yes	Check box
	No	
If Yes, Location	Classroom	Check box (check all that apply)
	Home Visit	
	Other	
If Classroom, Number of Classrooms	Open field	Open field
If Home Visits, Number of Home Visits	Open field	Open field
Comments	Open field	Open field

APPENDIX C

TECHNICAL APPENDIX

This appendix provides additional technical details about the research team's methodology for analyzing telephone interview, site visit, and record-keeping system data for the Head Start Oral Health Initiative (OHI) Evaluation. This section also describes the methodologies used by the research team to select a subset of 16 grantees for the site visits and to identify emerging strategies.

ANALYZING QUANTITATIVE DATA FROM THE TELEPHONE AND SITE VISITS INTERVIEWS

As described in Chapter I, the research team conducted telephone interviews in February and March 2007 with 52 OHI grantees.[34] To identify staff for the interviews, the research team contacted the lead OHI staff person identified in the grant application or in the OHI grantee orientation meeting documents.[35] Grantee staff then selected who they wanted to participate in the interviews. Although the number and type of staff participating in the interviews varied by grantee, three main types of staff members were interviewed: (1) Head Start directors, (2) OHI coordinators, and (3) health coordinators. On average, two respondents participated in each interview (Chapter I, Table I.3). The telephone interview protocol is included in Appendix A.

From October through December 2007, the research team conducted site visits to a subset of 16 OHI grantees. To select the subset of grantees for the site visits, the research team used the RE-AIM (Reach, Effectiveness, Adoption, Implementation, and Maintenance) analytic model as a framework for rating grantee implementation and selecting 12 high-ranking and 4 lower-ranking programs to participate in the site visits (Glasgow et al. 1999;

[34] Fifty-one telephone interviews were conducted in February and March 2007; one telephone interview was conduced in May 2007.

[35] In April 2006, the Office of Head Start convened a kick-off meeting with the Head Start Oral Health Initiative grantees in Washington, DC.

Dzewaltowok et al. 2006; Del Grosso et al. 2007). The RE-AIM framework and how it was applied to the OHI evaluation is described later in this Appendix.

Site visits included individual interviews with key grantee staff, individual or small-group interviews with community partners and oral health service providers, a focus group with parents, and an unstructured observation of educational or other OHI activities. To identify respondents for the site visits, the research team contacted the grantee staff they talked to during the telephone interviews and asked them to identify respondents for each interview, including grantee and community partner staff.

The type and number of staff members interviewed during site visits varied, but the four most common interviewees included (1) directors; (2) health specialists; (3) OHI coordinators; and (4) direct service staff, including teachers, home visitors, center directors, and family service workers (Chapter I, Table I.3). In addition, site visitors interviewed 45 community partners from 41 different partner organizations. To identify parents for the focus groups, the research team selected a sample of primary caregivers of enrolled children from the record-keeping system. Grantees used this sample to identify 8 to 10 parents for the focus groups. An average of 8 parents per site participated (ranging from 3 to 16 participants). Interview and focus group protocols for the site visits are included in Appendix A.

Unstructured observations were conducted during 15 of 16 site visits.[36] Site visitors observed a range of activities including (1) onsite oral health screenings and fluoride varnish applications (observed at four grantees), (2) parent trainings (two grantees), (3) classroom lessons on oral health and daily tooth brushing by children (eight grantees), and (4) a community dental fair (one grantee). Site visitors described the activities they observed in the site visit notes. The research team used this information to inform their descriptions of the services and activities grantees provided through OHI in this report.

To analyze the telephone and site visit interview data, MPR and Altarum wrote their notes from the interviews and site visits using a standard format to ensure consistency. Because of the large number of grantees in the evaluation, the research team used a qualitative analysis software package, Atlas.ti (Scientific Software Development 1997), to facilitate organizing and synthesizing the large amount of data collected during the interviews. This software enabled the research team to use a structured coding scheme for organizing and categorizing data that is linked to the primary research questions (Chapter I, Table I.4). Within each question, the research team defined codes for key themes and subtopics. Two members of the research team, including one senior member, coded the reports. To ensure they were coding the reports consistently, both team members coded a sample of reports and then compared the coded documents.[37] They then met to discuss any

[36]The research team was unable to schedule an observation at one grantee because the timing of the visit did not align with any regularly scheduled oral health related activities.

[37] For the telephone interviews write-ups, one research member coded 28 reports and the other coded 33 reports. This resulted in 7 reports that both members coded. For the site visit write-ups, one team member coded 8 reports and the other coded 11 reports. This resulted in 3 reports that both members coded.

discrepancies and reach consensus on how the codes should have been applied. In addition, the coders reviewed a sample of coded reports to check reliability during the coding process.

Once the interview reports were coded, the research team used Atlas.ti to conduct code searches and retrieve data on the research questions and subtopics. The team analyzed these data both within and across sites to identify common themes that emerged, as well as patterns of service delivery, staffing, and other program dimensions.

ANALYZING QUANTITATIVE DATA FROM THE PROGRAM RECORD-KEEPING SYSTEM

MPR designed a web-based record-keeping system to collect consistent information about children, caregivers, and pregnant women enrolled in OHI and services provided across the 52 grantees. MPR staff trained the grantees on the record-keeping system in January and February 2007. OHI grantee staff entered data on five areas into the system: (1) characteristics of children and their primary caregivers and of pregnant women enrolled in the grantee programs; (2) the types of treatment and preventive oral health services children and pregnant women received through OHI; (3) community partner characteristics; (4) the types of oral health education offered to children, parents, and staff; and (5) the types of dental hygiene supplies distributed to Head Start families.

To reduce the burden of data entry, grantees serving more than 200 participants entered data on only 200 participants (grantees ranged from serving 40 to 6,989 children). MPR worked with grantees to select a purposive sample of centers or classrooms (usually one portion of each grantee's service area) to include in the record-keeping system. Grantees were given significant leeway in selecting centers and classrooms but were asked to adhere to three criteria: (1) if the grantee served children in Early Head Start, some of these children had to be included; (2) if the grantee served pregnant women, some of these women had to be included; and (3) if more than a third of the grantee's caseload included families that speak a language other than English at home, some of these children had to be included. MPR also recommended that grantees select centers or classrooms in one geographic area for convenience if feasible. Grantees began entering data in February 2007, after Office of Management and Budget (OMB) clearance was obtained. The report includes information from the record-keeping system covering the period from February 1, 2007, through January 31, 2008. Data fields for the record-keeping system are included in Appendix B.

To provide a snapshot of the characteristics of the children and pregnant women enrolled in OHI and the services they received, as well as the characteristics of community partners, the research team used a full year of record-keeping system data (February 1, 2007, through January 31, 2008) to compute descriptive statistics. Since most grantees operate a nine-month program year beginning in the fall, the data collection period limited the research team's ability track children and pregnant women's service receipt during the course of an entire program year. Instead, the data presented include children and pregnant women who were enrolled in Head Start (1) during the 2006-2007 program year only, (2) during the 2007-2008 program year only, and (3) during both program years. Regardless of the period of time children and pregnant women were enrolled in Head Start, the service data recorded in the record-keeping system only included services provided from February 2007 (the

second half of the 2006-2007 program year) to January 2008 (the first half of the 2007-2008 program year).

To better understand how data collected through the record-keeping system compared to data collected by Head Start grantees for the Program Information Report (PIR), the research team analyzed PIR data from the 2006-2007 program year for the OHI grantees and compared it to data collected through the record-keeping system. To ensure a comparison of similar samples, the research team evaluated data only for preschool-aged children enrolled in Head Start. Children enrolled in Early Head Start and Migrant and Seasonal Head Start programs were not included in the analysis because the comparable PIR data elements are only required for children enrolled in Head Start. The research team compared data on the number of children that completed dental exams, received preventive care, as well as those that completed or were receiving needed followup treatment.

Overall, the PIR data indicates higher rates of children had a dental home and received dental exams and preventive care than the rates reported in the record-keeping system (Tables C.1 and C.2). While the rates of children requiring followup treatment and those who have received or were receiving needed treatment were comparable. However, since the data elements in the record-keeping system were not completely comparable to the variables in the PIR (for example, the PIR reports on the number of children with exams that required followup treatment; the recordkeeping system reports on any enrolled children that required followup) and the data collection periods were not comparable (data collected through the record-keeping system included the last few months of the 2006-7 program year and the beginning of the 2007-8 program year; data collected for the PIR were for the entire 2006-2007 program year), this analysis is exploratory and should not be used to draw conclusions about levels of service receipt or the validity of program reports in either the PIR or the OHI record-keeping system. The data from the PIR are shown in Table C.1 and the data from the record-keeping system are shown in Table C.2.

To ensure the quality of the record-keeping system data used for the report, the research team conducted a series of checks on the data to search for missing values, illogical entries, and outliers. The team began conducting these checks after data entry began in February 2007 and repeated the checks periodically throughout the data collection period. When problems were identified, the research team contacted grantees via telephone or email to verify the data and made any necessary corrections. Throughout the report, the research team indicates the number of missing data for each data item reported in the tables. Missing data resulted from incomplete data entry by some grantees across data items.

To examine the characteristics of families and children served by OHI and entered into the record-keeping system, the research team computed descriptive statistics—such as frequencies, means, and distributions—of variable characteristics of participants at each site.[38] The team then computed means across all sites and for subgroups of sites as

[38] As described earlier in this Appendix, to reduce the burden of data entry, grantees serving more than 200 participants entered data on only 200 participants (grantees ranged from serving 40 to 6,989 children). MPR worked with grantees to select a purposive sample of centers or classrooms (usually one portion of each grantee's service area) to include in the record-keeping system. Grantees were given significant leeway in

appropriate. Similarly, the team computed the number and distribution of various types of community partners for each grantee, for all grantees, and for subgroups of grantees (Chapter II, Table II.7). Frequencies, means, and ranges for the amounts of different types of oral health care and education provided to Head Start families and children were computed to examine service receipt (Chapter III, Tables III.1-5). For services provided, the research team used similar procedures to report on types and levels of services provided by community partners and other community providers, the types and levels of support services provided, and the location of services (Chapter III, Table III.4).

The research team also computed descriptive statistics for subgroups of interest based on grantee characteristics, including geography (rural, urban or a mix of rural and urban) and grantee size (actual enrollment under 600 or 600 and over). In addition, the research team analyzed the data by state rules regarding the functions dental hygienists are allowed to carry out and the required supervision levels (permitted to practice unsupervised, must be under direct supervision of a dentist, or undefined) and whether or not dental hygienists can be directly reimbursed by Medicaid. As discussed in Chapter III, the research team found that children enrolled in Head Start programs located in primarily rural or a mixed urban-rural

selecting centers and classrooms but were asked to adhere to three criteria: (1) if the grantee served children in Early Head Start, some of these children had to be included; (2) if the grantee served pregnant women, some of these women had to be included; and (3) if more than a third of the grantee's caseload included families that speak a language other than English at home, some of these children had to be included. It was also recommended that grantees select centers or classrooms in one geographic area for convenience if feasible. Therefore this data is not representative of all children served in the OHI.

Table C.1. PIR Rates of Dental Services for Preschool-Aged Children from OHI Grantees

	Percentage of Preschool-Aged Children
Dental Home At Enrollment	54
Dental Home At End of Year	74
Dental Exam Within Last 12 Months	79
Of Children Examined, Those Who Received Preventive Care	78
Of Children Examined, Those Diagnosed as Needing Treatment	28
Of Children Diagnosed, Those Who Received or are Receiving Treatment	84
Number of Children	**41,702**

Source: Program Information Report (PIR), 2006-2007, for OHI grantees.

Note: Data are for children aged 3 and older only. One Head Start grantee was dropped from the analysis because the research team was unable to identify in the PIR the delegate agencies enrolled in the OHI as compared to all delegate agencies.

Table C.2. OHI Record-keeping System Rates of Dental Services for Preschool-Aged Children from OHI Grantees

	Percentage of Preschool-Aged Children Enrolled in 2007-2008	Percentage of Preschool-Aged Children Enrolled Since February 2007
Dental Home	59	60
Received a Dental Exam or Screening	62	49
Received Preventive Care	66	56
Received Treatment	14	12
Required Followup	22	19
Of Children Requiring Followup, Those Who Have an Appointment Pending or Followup Completed	81	78
Number of Children	**6,488**	**10,915**

Source: Record-keeping system, February 1, 2007 to January 31, 2008.

Note: Data are for children aged 3 and older only. One Head Start grantee was dropped from this analysis because the research team was unable to identify in the PIR the delegate agencies that are enrolled in the OHI as compared to the other delegate agencies not enrolled in OHI.

service area were more likely to receive a dental screening or exam than children enrolled in grantees located in primarily urban areas (Table C.3).[39] Differences were also observed between grantees that served less than 600 children and those that served 600 or more. Children enrolled in smaller grantees were more likely to receive a preventive or treatment service than children enrolled in larger grantees (Table C.4). The analysis did not suggest meaningful differences among subgroups based on state rules regarding dental hygienists (not shown).

IDENTIFYING GRANTEES FOR IN-DEPTH SITE VISITS USING THE RE-AIM ANALYTIC FRAMEWORK

As described in earlier chapters, the 52 OHI grantees are diverse in terms of their community contexts, populations served, and oral health promotion strategies. This diversity poses a significant challenge for the evaluation. To address this challenge and to ensure a systematic and objective analysis of the data collected, the research team used the RE-AIM (Reach, Effectiveness, Adoption, Implementation, and Maintenance) analytic model as an organizing framework (Glasgow et al. 1999; Dzewaltowok et al. 2006). This section describes the RE-AIM analytic model and summarizes how the research team applied it to the OHI evaluation, including measures used to assess grantees' performance on each RE-AIM dimension. A more detailed discussion of this analysis in "Oral Health Promotion, Prevention, and Treatment Strategies for Head Start Families: Early Findings from the Oral Health Initiative Evaluation" (Del Grosso et al. 2007).

RE-AIM ANALYTIC FRAMEWORK

Researchers developed the RE-AIM model by drawing on previous work in several areas of public health evaluation, including the "diffusion of innovations," "multilevel," and "precede-proceed" models (Rogers 1995; Green and Kreuter 2005).[40] RE-AIM extends this previous work in three main ways: (1) it focuses on the translation of research into practice, (2) it emphasizes internal and external validity issues and representativeness of diverse populations equally, and (3) it provides specific and standard ways of measuring key dimensions of public health impact and widespread application. Researchers have used RE-AIM to evaluate a range of public health interventions in areas such as physical activity promotion among children and adults and school health promotion.

As described in Chapter I, the RE-AIM framework facilitates analysis of public health promotion strategies at both the individual and institutional levels as defined by five dimensions:

[39] Subgroup data are reported for children only because the sample sizes for pregnant women were very small.

[40] The Robert Wood Johnson Foundation funded the development of the RE-AIM model and its accompanying website (RE-AIM.org), which serves as a clearinghouse for information related to the model.

Table C.3. Treatment and Preventive Services Provided to Children, by Geography

	Primarily Urban	Primarily Rural	Mix of Urban and Rural
	Children	Children	Children
Received At Least One Service	53	69	64
Received More Than One Service	44	51	53
Received Dental Screening or Exam	50	63	60
Received Any Fluoride Treatment	40	44	48
Received Any Other Service	31	33	34
Number Of Children	**2,547**	**3,173**	**3,189**

Source: Record-keeping system data from 52 grantees, February 1 to January 31, 2008.

Note: N = 8,909 children enrolled in the OHI. Missing data range from 0 to 68 across items because data entry was incomplete.

Table C.4. Treatment and Preventive Services Provided to Children, by Grantee Size

	Under 600	Over 600
	Children	Children
Received at Least One Service	70	53
Received More Than One Service	55	42
Received dental screening or exam	59	49
Received Any fluoride treatment	49	38
Received Any other service	38	26
Number of Children	**5,250**	**3,659**

Source: Record-keeping system data from 52 grantees, February 1 to January 31, 2008.

Note: N = 8,909 children enrolled in the OHI. Missing data range from 6 to 68 across items because data entry was incomplete.

- *Reach:* the intervention's reach into the target population
- *Effectiveness:* the intervention's effectiveness in modifying health risk
- *Adoption:* the extent to which the intervention is adopted in the target setting
- *Implementation:* the extent to which services are delivered with fidelity and at the desired level of intensity

- *Maintenance:* the extent to which the intervention and its impact on participants is maintained over time

As an analytic model designed to evaluate public health promotion initiatives, RE-AIM provided an ideal framework for addressing the target outcomes of OHI and the diverse strategies employed by grantees.

RE-AIM METHODOLOGY

The RE-AIM framework facilitated a systematic analysis of each grantee's early performance by employing a set of consistent measures to assess performance on each of the five RE-AIM dimensions. To apply the RE-AIM framework to the OHI evaluation, the research team (1) developed measures within each of the five RE-AIM dimensions, (2) collected the necessary data for each measure using information obtained during the telephone interviews and from the record-keeping system, (3) conducted the analysis using the RE-AIM framework, and (4) examined the results for specific subgroups. This section provides a description of these steps as they were applied to the overall RE-AIM analysis, as well as to the examination of subgroups.

Developing Measures Within Each Dimension. The measures developed for the RE-AIM analysis were based on previous research studies that utilized the RE-AIM analysis but were specified for the particular context of the OHI grantee communities, populations served, and oral health promotion strategies. The final set of measures, developed in consultation with ACF, was designed to encompass a broad range of possible OHI models (Table C.5). To facilitate comparison across grantees, the measures were quantitative, primarily percentages or ratios, or drew on qualitative information from telephone interviews. All qualitative measures were quantified by rating various aspects of grantee activities, such as the extent to which grantees implemented key components of the initiative.

Collecting Necessary Data. The data necessary to carry out the RE-AIM analysis were collected during telephone interviews with all 52 grantees in February and March 2007

Table C.5. RE-AIM Measures and Performance Values for 51 OHI Grantees

RE-AIM Dimensions and Measures	Grantee Performance		
	Average	Lowest	Highest
Reach			
Percentage of total service population served through OHI	93	50	100
Percentage of enrolled children and pregnant women who received at least one service	36	0	100
Whether grantees are providing direct services or outreach to others beyond Head Start	42	0	100
Effectiveness			
Percentage of participants who received any service	36	0	100
Percentage of participants who received more than one service	25	0	94
Percentage of participants who received a dental screening or exam	26	0	100
Percentage of children who received a fluoride treatment	28	0	94
Percentage of participants who received any other service	16	0	88
Adoption			
Whether planned staff positions filled as of March 2007	100	100	100
Whether grantee implemented planned staffing structure	84	50	100
Whether staff received training on oral health topics	62	0	100
Number of months in which at least 5 percent of staff received training on oral health topics	20	0	80
Whether grantee has partnerships with service providers	94	0	100
Whether grantee is involved in coalitions/partnerships for advocacy and training	34	0	100
Whether grantee is involved in partnerships with organizations that provide education and support services	33	0	100
Implementation			
Whether grantee has provided oral health education and skill development training to children	78	0	100
Number of months in which at least 10 percent of children received oral health education and skill development training	49	0	100
Whether grantee has provided oral health education and skill development training to pregnant women	81	0	100
Whether grantee has provided oral health education and skill development training to parents	100	100	100
Number of months in which at least 5 percent of parents received oral health education and skill development training	35	0	100
Percentage of parents who received oral health education and skill development training on average every month	11	0	100
Whether grantee provided oral hygiene supplies	92	0	100
Number of months in which at least 10 percent of families received oral hygiene supplies	33	0	100

RE-AIM Dimensions and Measures	Grantee Performance		
	Average	Lowest	Highest
Percentage of families that received oral hygiene supplies on average every month	14	0	83
Maintenance			
Percentage of children and pregnant women identified as needing follow-up treatment who have pending appointments for followup or followup is completed	48	0	99
Percentage of children and pregnant women with a dental home	66	0	100
Percentage of treatment/preventive services provided by a community partner	45	0	100

and from data collected through the record-keeping system from February 1 through May 30, 2007, from 51 grantees.[41]

Conducting the Analysis Using the RE-AIM Framework. The next step was to conduct the analysis of the OHI grantees using the RE-AIM model. The research team followed five systematic steps summarized below:

1. **Ranking Grantees from Highest to Lowest on Each Measure Within Dimensions.** After the research team collected the necessary data and created the measures, grantees were ranked within and across each RE-AIM dimension. To begin, a score on each measure was calculated for each grantee. Next, grantees were ranked from highest to lowest according to their scores on each measure. When two or more grantees received the same result on any measure, their resulting ranking for that measure was also the same. Rankings were then averaged to calculate the average rank scores for each dimension. The average rank score was converted into a scaled score ranging from 0 to 100. The scale was developed based on the number of grantees ranked for all measures, which was 51 grantees. This resulted in a scale divided into increments of 1.96, which assumes all 51 grantees received an individual ranking. However, when two or more grantees had the same average ranking, they received the same scaled score. Subsequent scaled scores were downward adjusted to accommodate duplicate rankings. Next, the scaled average rank scores for all dimensions were averaged to create a composite RE-AIM score. The composite scores were then ranked from highest to lowest to compare performance across all 51 grantees.

2. **Calculating Average Rankings for Each RE-AIM Dimension.** Rankings were then averaged to calculate the average rank scores for each dimension. On most

[41] Because of the operating schedule of one grantee, the record-keeping system data included information on only 51 grantees to the research team excluded the grantee with the missing record-keeping system data from the RE-AIM analysis because an accurate and fair application of the framework was not possible.

dimensions, all grantees received a score for all measures. To calculate averages, therefore, the rankings for all measures were added together and then divided by the number of measures. On a few dimensions, however, not all measures applied to all grantees. When this occurred, averages for grantees were based on the number of measures that applied. For example, measures specific to pregnant women were included in the average only for those grantees serving pregnant women.

3. **Scaling Rank Scores for Each Grantee on Each RE-AIM Dimension.** The average rank score was converted into a scaled score ranging from 0 to 100. This process normalized scores and allowed for comparisons across measures. The scale was developed based on the number of grantees ranked for all measures, which was 51 grantees. This resulted in a scale divided into increments of 1.96, which assumes all 51 grantees received an individual ranking. However, when two or more grantees had the same average ranking, they received the same scaled score. Subsequent scaled scores were downward adjusted to accommodate duplicate rankings.

4. **Ranking Grantees Based on a RE-AIM Composite Score**. Using the scaled scores for each dimension, a RE-AIM composite score was calculated. This score measures the overall public health impact of each grantee's OHI program. The RE-AIM composite score is an average of the five scaled average rankings. Grantees were then ranked from highest to lowest (1 to 51) based on the RE-AIM composite score. As in previous rankings, when two or more grantees had the same average ranking, they received the same scaled score. Subsequent scaled scores were downward adjusted to accommodate duplicate rankings. The overall rankings were then used to determine both the highest-performing and lowest-performing grantees.

5. **Flagging Grantees with Dimensions Above the Median.** To ensure that grantees with the highest rankings had high scaled average rankings across dimensions, we calculated the median ranking for each dimension. Grantees at or above the median for each dimension were then flagged. This process allowed us to separate those grantees that received a high scaled average ranking on one or two dimensions but a low ranking on the other dimensions from those that scored above the median on three or more dimensions, thus indicating grantees with a strong overall model, not just strengths in one or two areas.

Examining Results by Subgroup. Once overall rankings were completed, the research team examined results for various subgroups of interest, including program type (Early Head Start only, Head Start only, and both Early Head Start and Head Start), Administration for Children and Families (ACF) region, grantees in which less than 90 percent of children have insurance coverage, and grantees located in rural areas. To examine these data, the research team identified grantees within a given subgroup using information collected during telephone interviews and from the record-keeping system. The research team then used the RE-AIM composite scores to rank grantees within the subgroups. Grantees were given a subgroup ranking in addition to an overall ranking. As before, when

two or more grantees had the same average ranking, they received the same scaled score. Subsequent scaled scores were downward adjusted to accommodate duplicate rankings.

Results

For the OHI evaluation, the RE-AIM framework facilitated an examination of grantees' performance on the five dimensions despite the diversity of community contexts, locally designed initiatives, and varying target populations. These five dimensions—Reach, Effectiveness, Adoption, Implementation, and Maintenance—have been shown to be compatible with community-based and public health interventions (Glasgow et al. 1999). This section describes the results of the RE-AIM analysis. First, the section includes a description of grantee performance across the RE-AIM measures. Second, it reviews the overall ranking of grantees by the RE-AIM composite score. Third, it includes an examination of the RE-AIM results by subgroups.

Grantee Performance Across the RE-AIM Measures. Table C.5 presents the measures developed for each RE-AIM dimension and the average, lowest, and highest values for each measure. There is considerable variation on grantee performance across the 27 measures. On all but 10 measures, values ranged from 0 to 100. Moreover, the average value on each measure varied widely, with average scores ranging from 11 to 100 across measures.

Results by Overall Rankings. The RE-AIM analysis resulted in a final ranking of all grantees from 1 to 51 based on the RE-AIM composite score. In addition, the research team identified the RE-AIM dimensions in which grantees scored above the median. Table C.2 shows the rankings of the 51 OHI grantees.[42] Of the 20 top-ranking grantees, all but one scored above the median on three or more RE-AIM dimensions, with seven of the grantees ranking in the top eight overall scoring above the median on all five RE-AIM dimensions. This indicates that the OHI models developed by the highest-ranking grantees represent a range of strategies and strengths, rather than success in only a limited group of dimensions. In contrast, the grantees that ranked in the bottom 10 overall scored above the median on few RE-AIM dimensions, with the 5 lowest-ranking grantees scoring below the median on all five dimensions (see Table C.6).

Examination of Results by Subgroup. In addition to the overall rankings, the research team examined subgroups of grantees that represented the variety of contexts in which OHI has been implemented. The team identified subgroups of grantees of interest, including program type (Early Head Start only, Head Start only, and both Early Head Start and Head Start), program size, grantees located in rural areas and in ACF regions, and lower rates of dental insurance coverage.[43] The research team also examined RE-AIM scores for grantees operating in primarily rural areas and compared these results with those for grantees

[42] To ensure the privacy of the OHI grantees, the data are presented using unique identifiers. These identifiers were assigned at random and do not represent any specific characteristics of the grantees.

[43] Insurance coverage of children is based on record-keeping system data from February 1 to May 31, 2007.

operating in primarily urban locations. Using a similar process for ranking across all grantees, the research team ranked grantees within the selected subgroups.

The research team found no meaningful patterns in the distributions of rankings across most subgroups. Patterns did emerge, however, in the examination of grantees with hard-to-serve Head Start populations, specifically Migrant/Seasonal Head Start Program Branch grantees (Region XII), American Indian/Alaska Native Program Branch (Region XI) grantees, and grantees serving populations with high numbers of children without insurance coverage. Both Migrant/Seasonal Head Start grantees and the American Indian/Alaska Native grantees faced challenges in service provision, such as isolated locations and limited access to dental providers. For grantees serving large populations of uninsured children and families, locating resources to cover the cost of preventive care and dental treatment was a particular challenge.

Selecting a Subset of Grantees for Site Visits

As a next step, the research team, in consultation with ACF, used the results of the RE-AIM analysis to select a subset of 16 grantees for in-depth site visits. The selection included 12 high- and 4 low-ranking grantees. In addition, the grantees selected represented the various contexts in which OHI was implemented. The 16 grantees were geographically diverse; they included 10 of the 12 ACF regions and 15 states. Most described their service areas as primarily rural. They tended to be smaller than the OHI grantees overall. Grantees included Head Start, Early Head Start, and Migrant/Seasonal Head Start programs, with programs providing Head Start services only as the most common. Grantees provided a mix of home-based and center-based services.

Table C.6. RE-AIM Analysis Overall Rankings

Grantee ID[a]	Reach	Effectiveness	Adoption	Implementation	Maintenance	RE-AIM Composite Score	Overall Ranking	Dimensions Above Median
AT	88	98	90	73	86	87	1	R, E, A, I, M
E	98	96	82	94	53	85	2	R, E, A, I, M
AF	94	82	98	84	63	84	3	R, E, A, I, M
AU	82	80	65	100	84	82	4	R, E, A, I, M
AN	65	67	78	96	98	81	5	R, E, A, I, M
AI	75	75	92	57	84	76	6	R, E, A, I, M
AK	100	100	31	86	49	73	7	R, E, I
X	63	92	55	61	90	72	8	R, E, A, I, M
AQ	90	80	98	39	33	68	9	R, E, A
T	57	71	37	88	88	68	9	R, E, I, M
AP	96	86	33	76	35	66	11	R, E, I
U	92	90	51	29	61	65	12	R, E, M
L	53	84	78	2	100	64	13	R, E, A, M
AG	26	39	90	92	69	63	14	A, I, M
AB	69	37	49	61	92	62	15	R, I, M
AO	76	49	98	37	41	60	16	R, A
AV	43	73	71	35	80	60	16	E, A, M
AM	59	55	73	41	71	60	16	R, E, A, M
AW	41	22	80	98	57	60	16	A, I, M
F	80	51	65	55	41	58	20	R, A, I
O	45	65	55	82	29	55	21	E, A, I
B	73	94	14	67	26	55	22	R, E, I
W	4	22	78	71	94	54	23	A, I, M
V	73	69	61	22	43	53	24	R, E, A
Q	41	18	57	71	76	53	24	A, I, M
AE	69	76	24	43	49	52	26	R, E
AR	31	55	84	65	24	52	26	E, A, I

Grantee ID[a]	Reach	Effectiveness	Adoption	Implementation	Maintenance	RE-AIM Composite Score	Overall Ranking	Dimensions Above Median
AA	12	63	100	26	45	49	28	E, A
C	86	57	41	33	27	49	28	R, E
AY	51	61	24	92	12	48	30	E, I
I	57	47	27	53	55	48	30	R, I, M
AH	31	12	49	49	98	48	30	M
D	33	14	71	45	73	47	33	A, M
R	22	26	37	75	75	47	33	I, M
AD	18	90	10	80	33	46	35	E, I
P	51	31	43	8	78	42	36	M
A	10	59	4	78	59	42	36	E, A, M
AX	84	43	45	6	18	39	38	R
AS	26	41	29	29	67	38	39	M
H	78	35	61	6	12	38	39	R, I
S	41	27	24	47	53	38	39	M
K	35	16	71	51	14	37	42	A
AC	61	31	8	14	67	36	43	R, M
Y	8	24	41	63	16	30	44	I
AJ	16	10	71	33	6	27	45	A
AL	6	10	90	24	2	26	46	A
M	4	45	16	18	41	25	47	
G	47	10	12	12	20	20	48	
N	20	33	24	18	22	23	49	
J	31	10	26	10	8	17	50	
Z	16	10	6	20	6	11	51	

Note: R = Reach; E = Effectiveness; A = Adoption; I = Implementation; M = Maintenance.

[a]Grantee IDs are unique identifiers assigned at random and do not represent any specific characteristics of the grantees.

IDENTIFYING EMERGING STRATEGIES

As described in Chapter I, a main goal of the OHI evaluation was to identify service delivery approaches that show promise for promoting oral health prevention principles among Head Start families. To achieve this goal, MPR and Altarum analyzed data collected during site visits to the 16 grantees and a full year of program record-keeping system data from these 16 grantees. The data were then used to systematically identify approaches and strategies that showed promise for replication. The methodology used by the research team is described in this section.

To identify emerging strategies, the research team used a three-step process that involved (1) identifying implementation approaches and strategies, (2) assembling information about grantees' use of the approaches and strategies, and (3) using site visit and record-keeping system data to assess the strategies. Figure C.1 illustrates this process.

Identifying Implementation Approaches and Strategies. The first step in analyzing the site visit data was to identify implementation approaches and the strategies associated with the various approaches. For example, the research team identified parent education as a common approach used by grantees. However, the strategies used by each grantee to educate parents varied. For example, as described Chapter III, OHI grantees sent written materials home with children, and provided information at enrollment, during parent meetings and workshops, home visits, and visits to the dentist.

Assembling Information about Grantees' Use of the Approaches and Strategies. After identifying these approaches and strategies, the research team assembled information from all data sources about grantees' use of them. First, researchers systematically coded the site visit reports to identify which of the 16 grantees were using the identified approaches and strategies. Second, researchers used information available in the record-keeping system to construct relevant variables to quantify the use of strategies, such as the number of months parent education was provided and other measures of service receipt and intensity.

Using Site Visit and Record-Keeping System Data to Assess the Strategies. Next, the team identified the number of grantees from the site visits using each of the identified approaches and strategies and compared the use of each strategy across high- and low-ranking sites to determine which strategies could be deemed "emerging." A set of consistent rules were applied during this step (Figure C.1). If only high-ranking grantees used an identified strategy and the available quantitative data suggested the strategy worked, the research team identified the strategy as emerging (see Table C.7 for an example). If no high-ranking grantees used an identified strategy and the available quantitative data did not suggest that the strategy showed promise, the team did not identify it as emerging. In all cases, the research team further assessed the strategies by determining if qualitative and quantitative data agreed. If they did not, researchers attempted to determine the reason and then selected the data source that more reasonably reflected the strategy. For example, the research team used the quantitative data on the percentage of services accessed that included specific types of supports (such as transportation) to determine if offering a support increased the rate of dental service receipt. However, for some support strategies, such as

sending reminder notices and helping families cover the costs of care, appropriate measures did not exist in the quantitative data. As a result, the research team decided instead to rely on the qualitative data to triangulate these strategies.

Most strategies, however, were used by both high- and low-ranking grantees. In these cases, the research team considered the ratio of high- to low-ranking sites using a strategy. If more than 75 percent of the grantees using the strategy were classified as high ranking (9 of the 12 high ranking) and the quantitative data suggested the strategy showed promise, the team identified the strategy as emerging. The team used 75 percent as the threshold because it aligned with the ratio of high- and low-ranking sites (12 to 4, respectively) selected for site visits. If more than 75 percent of the grantees using the strategy were classified as high-ranking but the quantitative data did not suggest that the strategy showed promise, the research team used qualitative data from the site visits to identify a reason for the discrepancy. When a reason could be identified, the research team used this information to assess if the strategy showed promise. If fewer than 75 percent of the grantees using the strategy were classified as high-ranking and the quantitative data did not suggest the strategy showed promise, the team did not consider the strategy as emerging. If the quantitative data did suggest the strategy showed promise, the research team used the qualitative data from the site visits to identify a reason for the discrepancy.

A comprehensive list of the approaches and strategies the research identified as emerging is included in Chapter IV and Volume II presents a description of each.

Table C.7. Process for Identifying Emerging Strategies When Strategy Is Used by Both High- and Low-Ranking Grantees

	Implementation Strategy		
Approach	A	B	C
Number of Grantees Using Approach	6	5	7
Number of High-Ranking Grantees Using Approach	4	2	3
Number of Low-Ranking Grantees Using Approach	2	3	4
Differences in Implementation			Strategy C used in combination with strategy A by high-ranking grantees
Relevant Record-keeping System Data	Confirms strategy shows promise	Does not confirm strategy shows promise	Confirms strategy shows promise
Relevant Information from Site Visit Reports	Record-keeping system and site visit data consistent	Record-keeping system and site visit data consistent	Record-keeping system and site visit data consistent
Emerging Practice Assessment	Emerging	Not emerging	Emerging, when used in combination with another strategy
Rationale	All data suggest strategy shows promise	No data support the strategy as emerging	Data suggest combination works well but not sufficient alone

Figure C.1. Identifying Emerging Practices