Oral Health in the Southern Willamette Valley: A Community Resources Scan and Needs Assessment

The Oregon Community Foundation

Regional Action Initiative

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Date Submitted:
April 30, 2010

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EXECUTIVE SUMMARY

Background

The Centers for Disease Control and Prevention claim that children in the United States are affected by tooth decay (or dental cavities) to a greater extent than other chronic infectious disease.[1] According to the Oregon Department of Health and Human Services, five times the number of children suffer from tooth decay than asthma, putting dental health as a priority concern for Oregonians. In Oregon, oral disease is on the rise and is not limited by socio-economic status, race or ethnicity, or age.[2-3] Among oral health indicators available in Oregon, Oregon falls below the national average for percent of dental cavities among children (ages 6-8, 56%) and untreated cavities (ages 6-8, 24%).

Childhood dental health challenges include early child cavities, rampant cavities, and untreated cavities. These can lead to the beginning of chronic oral disease that can include tooth loss, periodontal disease, gingival disease, and oral cancer.[3] Serious untreated tooth decay can also affect children in varied ways, including normal growth, learning ability, appearance, low self-esteem, and poor sleep patterns, among others.[3]

The mission of The Oregon Community Foundation (OCF) is to improve life in Oregon and promote effective philanthropy. In May 2008, The Oregon Community Foundation announced the Statewide Regional Action Initiative (RAI). Seven regions each were awarded a one-time allocation of up to $1 million to address a regional need and create beneficial, long-lasting change in their communities, though innovative RAI projects.

The Southern Willamette Valley (SWV) Regional Action Initiative (RAI) Committee has chosen to focus on Children's Dental Health for their region, which is comprised of Benton, Linn, Lane and Douglas counties. The three-year Initiative will focus on addressing four areas critical to improving children's oral health in this region: Prevention, Education, Advocacy and Treatment.

County-specific data on the dental needs of Oregon's children are limited. In order to better identify the needs, assets and resources available in Benton, Linn, Lane and Douglas counties, The Oregon Community Foundation commissioned HPRN to conduct the Needs Assessment and Community Resources Scan. The assessment is designed to provide a local overview of the four counties with a particular focus on oral health activities, oral health barriers and local priorities according to the leaders and service providers in the schools, business, and agencies in the communities that make up the four county region. The five goals of the project are:

1) Conduct an assessment of the resources available and resource needs in the education system in the Southern Willamette Valley
2) Conduct a scan of the resources available in the Southern Willamette Valley
3) Conduct an assessment of the provider community
4) Conduct an assessment of OHP enrollment gaps and the ability of OHP agencies to enroll more children
5) Assess the oral health priorities in the Southern Willamette Valley

Methods

In collaboration, The Oregon Community Foundation (OCF) and Health Policy Research Northwest (HPRN) developed the interview and survey tools used to complete this assessment. The staff at HPRN administered the surveys using *SurveyMonkey*, a web based administration service. Non-respondents received additional requests for participation by phone and/or fax. The key informant interviews were conducted by HPRN and consultant Susan Stearns, MBA, MA from the Center for Evidence-based Policy at Oregon Health & Sciences University. Additionally, staff at HPRN conducted internet searches, literature reviews, and report summaries.

The target populations included in the survey administration include:

- Education community (310 individuals targeted; 27% response rate)
- Agencies (82 agencies representatives targeted; 48% response rate)
- Pediatricians and Obstetricians (203 individuals targeted; 7% response rate)
- Dentists (366 individuals targeted; 12% response rate)
- Medicaid health plan and dental plan administrators (8 individuals targeted; 62% response rate)
- State of Oregon Division of Medical Assistance Program; program managers and client caseworkers (9 managers targeted with snowballing referrals to caseworkers). DMAP requested State approval prior to survey administration; therefore, no additional surveys were collected following completion of the first eleven.

Grantors
Community resources for dental include grantors. A systematic web search was conducted to determine resources are being committed or may potentially be committed for dental-related initiatives in South Willamette Valley (SWV). For each funding source, the grant focus (e.g. dental, health, youth), the geographic focus, range of funding (if available), type or organization, deadlines and timeline for submission (if available), contact information, and description of the grantmaking organization were identified.

Dental Programs
The information of interest with regard to dental education programs in the four counties included: program location, number of students accepted/not accepted, required clinical practice for degree completion, number of students graduating, accreditation, program of study, and on-site public dental clinic and cost. After this information was compiled from the web sites, the directors of each program were contacted for further information not acquired from the web.

Medicaid-Eligible Children
The Oregon Community Foundation requested an estimate the number of children between the ages of 0-12 years old that qualify for the Oregon Health Plan (OHP) but are currently not enrolled in the program. A described methodology was developed to estimate the number of potentially eligible children (described in the body of the current report).

Results

A total of 208 surveys were completed and are reported according to the five goals of the project. In each section, the results are presented in tables, graphs and narrative formats. Where possible, the results are stratified by county. However, where there are too few respondents by County, results are reported in aggregate. HPRN compiled population estimates to target accurate representation of survey respondents and interviews. The representative population estimates for the four counties are Benton (19%), Linn (13%), Lane (52%) and Douglas (16%).

Goal #1: Conduct an assessment of the resources available and resource needs in the education system in the Southern Willamette Valley

Representatives of the school districts in Linn-Benton, Lane and Douglas counties were surveyed to assess the resources available and resource needs in the various school districts. In total there are 12 school districts in Linn-Benton County, 16 school districts in Lane County, and 13 school districts in Douglas County.

Lane County public school representatives have the greatest access to School Based Health Centers, fifty percent of representatives from Linn and Benton Counties have access to a SBHC, and Douglas County expressed the least amount of access. The most frequent activity taking place in the four counties is annual dental screenings. Additionally, the most perceived need reported are annual dental screenings and nutritional education to promote oral health. Across the four counties, the top three ways school representatives are made aware of barriers to accessing necessary dental services were through school staff, child complaints, and parents seeking assistance from schools.

The top three most frequently rated highest priorities for the school districts are:

- Linn-Benton County:
    1) Improving coordination between providers and services
    2) School based dental screenings
    3) Providing supplies
- Lane County
    1) School-based dental screening
    2) Improving coordination between providers and services
    3) Providing more information on brushing and flossing
- Douglas County
    1) School based dental screening
    2) Providing more information on brushing and flossing
    3) Increasing the number of dentists who accept OHP patients

Goal #2 Conduct a Scan of the Resources Available in the Southern Willamette Valley

Grant funding and grant awards research, as well as surveys and interviews were completed with agencies representing the four counties.

There are many foundations in Oregon that make charitable giving or grant funding an integral piece of their organization, and although the organizations do not direct funds for dental specifically, their missions appear open to dental-related projects and programs. However,

despite the growing need of oral health resources, major grant contributions to the four county region of Benton, Douglas, Lane, and Linn counties to support children's dental health initiatives have been limited.

To understand additional activities that were taking place, interviews and surveys were completed that revealed a range of activities occurring across Oregon that aim to improve the oral health of children.

Statewide:

- The American Academy of Pediatric Dentists launched the Head Start Dental Home Initiative (DHI).
- The Give Kids a Smile program is operational for dentists to donate care.
- The Oregon State Office of Dental Health identified is addressing workforce training.
- The Oregon Oral Health Coalition (OROHC) is addressing oral health at the county level.
- The Oregon Educators Benefit Board (OEBB) negotiated a program with The ODS Companies' (ODS).

County Specific:

- Lane County has multiple agencies that work together to assist children who need dental care, and is home to several clinics that provide free or low cost dental care.
- The Benton County Health Department has collaborated with the Corvallis Boys and Girls club and established clinics to serve low-income, uninsured, and homeless populations.
- Capital Dental, Willamette Dental, and Medical Teams International (MTI) are responsible for a majority of the direct provision of dental health services to underserved populations in Douglas County.

Surveys were completed with 35 agencies from an original contact list of 13 agencies in Benton County, 11 agencies in Linn County, 12 agencies in Lane County, and 5 agencies in Douglas County, yielding a response rate of 92%, 73%, 100%, and 60%, respectively.

Agencies differ in the types of dental health support each provides. Supplies and volunteers are provided more than any other type of support, along with coordination of dentists, volunteers, and patients; and funding of dental health programs. Additionally, agencies most commonly distribute lists of referral sources, information on teeth brushing and flossing, and they assist with educating parents on when their child/children should see a dentists, providing education on dental providers, and providing education to OHP families on their dental benefits.

When asked about the most frequent barriers to accessing care for children and mothers, agencies reported that lack of money and inadequate insurance were the most frequent barriers, and the priorities for the counties are school based dental screening and school based flossing and brushing.

Goal #3: Conduct an assessment of the provider community in the Southern Willamette Valley

Information from the provider community, which includes pediatricians, obstetricians, the future dental workforce, and dentists was compiled. Due to the low response rate (7% of targeted providers and 12% of targeted dental providers), data is collapsed across the counties and key

differences are highlighted in the narrative when applicable. Efforts are underway to collect additional responses from the provider community in May.

When asked whether offices donated care in their office or at an off-site location, 83% of the responding providers donate care in their office, while 63% of the respondents donate care at an off-site location.

Respondents indicated that the questions most commonly asked children and/or parents of children who are seen in the physician, or physical health provider office include:

- *Do you brush and/or floss? How often?*
- *When was the last time you saw a dentist?*
- *Do you take fluoride or live in a fluoridated water district?*
- *How much juice/soda do you consume?*
- *For infants, have parents started brushing the infant's teeth?*

All of the pediatrician and obstetricians respondents prioritized increasing the number of dentists willing to take OHP and providing information on tooth decay in infants. The dental providers prioritized providing information on tooth decay in infants, providing more information on nutrition, and increasing the rate of reimbursement for dentists taking OHP.

Finally, a detailed assessment of the educational opportunities for dental training programs (e.g. dental hygienists) was conducted, yielding information on program scope, cost, recent enrollment volume and ways in which training programs are striving to meet the needs of underserved populations.

Goal #4: Conduct an Assessment of OHP Enrollment Gaps and the Ability of OHP Agencies to Enroll More Children in the Southern Willamette Valley

To address goal four, surveys and interviews were conducted with physical health and dental health administrators, Oregon Health Plan (OHP) program managers and caseworkers to assess any enrollment gaps and the ability of agencies to enroll more children**.**

Of the physical health administrators that answered the survey (62% response rate), 100% of them stated that the Oregon Health Plan in their region currently reimburses for fluoride varnish when it is administered by a Family Physician or Pediatrician. The same individuals that answered this question also stated that they would be willing to work with The Oregon Community Foundation to develop a targeted outreach program to encourage families and providers to utilize this particular medical benefit.

The administrators reported that the priorities for the physical and dental health plans include:

- Increasing the number of dentists willing to take OHP
- Providing information on tooth decay in infants
- Increasing the rate of reimbursement for dentists taking OHP
- Providing information on dental sealants
- Providing information on nutrition
- Providing supplies

Program Managers and Caseworkers were asked about barriers to accessing OHP dental benefits, outreach activities, perception of the current waiting period, types of activities that could help OHP enrollment sites participate to enroll OHP children, and local priorities for improving children's oral health. The program managers and case workers reported that the priorities for improving children's oral health include:

- Providing more information to families on dental sealants;
- Increasing the number of dentists willing to take OHP children;
- Increasing the rate of reimbursement for dentists that provide services to OHP children;
- Supporting school based dental screening and referral programs;
- Providing education on maternal oral health;
- Providing information on preventing tooth decay in infants;
- Provide supplies; and
- Improving coordination between providers and services.

In total, there are currently an estimated 3,074 children potentially eligible for the Oregon Health Plan but not currently enrolled in the South Willamette Valley.

Goal #5 Assess the Priorities in the Southern Willamette Valley

Across all counties, the most frequently highest ranked priority among all respondents (n=199) is school based dental screening. Over half of the respondents also rank providing more information on brushing and flossing and providing information on tooth decay in infants as the highest priorities. The most frequently reported low priorities among all respondents are supporting school based anti-bacterial wipes and varnish program and requiring dental examinations at school enrollment.

Recommendations and Next Steps

The following recommendations are intended to guide the RAI Committee in making informed decisions about prioritizing next steps and investments that could have the greatest impact:

1) Increase coordination to improve continuity of care for oral health needs.
2) Create a centralized dental information and referral resource
3) Increase access and affordability of dental health services through Medicaid programs and services
4) Increase the number of dental activities taking place in the schools
5) County-specific investments
    a. Linn-Benton; school based dental screenings, brushing and flossing programs.
    b. Lane; programs that provide education on tooth decay, maternal oral health and nutrition.
    c. Douglas; efforts to increase the number of dentists trained to address children's' oral health needs.

As OCF considers additional investments into the Southern Willamette Valley, it is important to help expand existing efforts, to link disjointed programs, and to assist by helping to fill programmatic and service gaps, rather than start new discrete efforts that only add another siloed effort. OCF can play an important role in amplifying efforts underway and bring new resources to provide more seamless education and service delivery across the dental, education, and human service sectors that serve SWV children.

BACKGROUND

Oral disease is an alarming health concern within Oregon. With the majority of Oregon residents suffering from oral disease, oral health has garnered much attention in the past decade in Oregon and the nation. [1,3] The U.S. Surgeon General has recently drawn attention to a national effort to improve oral health in the May 2006 report, "Oral Health in America: A Report of the Surgeon General."[4] The Centers for Disease Control and Prevention claim that children in the United States are affected by tooth decay (or dental cavities) to a greater extent than other chronic infectious disease.[1] According to the Oregon Department of Health and Human Services, five times the number of children suffer from tooth decay than asthma, putting dental health as a priority concern for Oregonians. In Oregon, oral disease is on the rise and is not limited by socio-economic status, race or ethnicity, or age.[2-3] The Oregon Department of Human Services has completed various state-wide oral health assessments in the last decade, namely the "Oregon Smile Survey," "Burden of Oral Disease in Oregon," and the "Oregon Oral Health Surveillance System 2001-2008." In addition, the Medicaid Advisory Committee in the Office for Oregon Health Policy and Research compiled a summary of recommendations in "Oral Health and the Oregon Health Plan" March 2009.[2]

Oregon's Oral Health Indicators

Multiple indicators reveal the risk of oral disease for Oregonians. The Oregon Department of Human Services, in "The Burden of Oral Disease in Oregon," reported that the number of Oregon residents who do not have annual dental visits ranges between 25% and 33%, approximately 49% of pregnant woman visited a dentist, children have five times the rate of oral disease than asthma, 61% of Oregon counties have a shortage of dentists, and just 20% of Oregon residents live in a community where their water supply is "optimally-fluoridated."[3]

For children particularly, Oregon's dental health needs are increasing. Childhood dental health challenges include early child cavities, rampant cavities, and untreated cavities. These can lead to the beginning of chronic oral disease that can include tooth loss, periodontal disease, gingival disease, and oral cancer.[3] The most severe problem remains cavities in young children, which when untreated can lead to other health problems. Early Childhood Caries (ECC) is a condition that begins when infants are around six months (when the first teeth arrive). New baby teeth are extremely susceptible to bacteria transmitted from the primary caretaker's mouth to the infant. If left unchecked, early childhood cavities in baby teeth affect the health of permanent teeth.[3] Both baby and mother's oral health are important factors in preventing ECC. Oftentimes, children get their first cavity before they even lose any teeth.[5] Factors that affect oral disease can begin before birth, with early childhood oral health problems affecting one's health for a lifetime. Serious untreated tooth decay can also affect children in varied ways, including normal growth, learning ability, appearance, low self-esteem, and poor sleep patterns, among others.[3]

Among oral health indicators available in Oregon, Oregon falls below the national average for percent of dental cavities among children (ages 6-8, 56%) and untreated cavities (ages 6-8, 24%). According to the 2007 "Oregon Smile Survey" of students (first, second, and third graders), nearly two-thirds of all students already had a cavity (80,000 children), 20% of children have "rampant decay" (24,000 children), one in four children had not seen a dentist in the past year, fewer than half of third-graders have sealants, and one in six children have cavities that affect their permanent teeth.[3]

Lack of Access

The prominent confounding factor for Oregon's decline in oral health is inadequate access to dental care for children. Children of low-income families bear the greatest burden of oral health disease, suffering from cavities at five times the rate of higher-income families.[6] The percentage of low-income children (0-18 years) that receive annual preventive dental care falls far below the national average of 31%, with Oregon at 13%. Low-income children (measured according to eligibility for free or reduced school lunch) have lower rates of annual dentist visits, have greater trouble accessing dental care, have a higher percentage of "decay and/or fillings in permanent or primary teeth," have twice the amount of "decay in seven or more teeth," have just under three times the amount of untreated decay, and just under three times the need of any routine or urgent treatment.[3] Existing evidence demonstrates that increasing access to dental health services through Medicaid programs reduces costs by increasing prevention efforts.[2]

Oral Disease's Link to Poor Health Outcomes

Oral disease is also linked with many other adverse medical conditions and health outcomes and often is a marker for other problems in the body. The State of Oregon Medicaid Advisory Committee warns that untreated oral disease can lead to high-cost dental treatments and poorer health outcomes in general.[2] For example, evidence shows that heart and respiratory conditions can grow worse if mouth infections are left untreated. Additionally, untreated infections in pregnant woman increase the risk of premature delivery, low birth weight, and passage of oral bacteria to the infant.[3]

According to the Oregon Department of Human services and the Centers for Disease Control, the "good news" is that oral disease can be prevented.[1,3] Oral disease results from bacterial infection, which can begin after the eruption of the first tooth and is often passed from mother to infant.[7] For children then, early preventive measures are of utmost importance. Comprehensive preventive oral health includes daily home care, regular dentist visits, fluoridation, and a low intake of sugar.[3]

Resources Available in Oregon

There are various available services for children in Oregon. Nationally, the Children's Health Insurance Program (CHIP) Reauthorization Act of 2009 provides support for children to access dental services and the provision and dissemination of dental education materials.[5] The Oregon Oral Health Program provides fluoride supplementation services to school children. This includes the School Fluoride Tablet and Rinse program, available to schools that have at least 40% of their students eligible for the Federal Free and Reduced Lunch program (FRL). In the 2004-05 school-year, 250 schools in Oregon participated in this program.[3,7] There are also more than thirty inexpensive school-based or "linked dental sealant programs" in Oregon, which rely on volunteers and are available to second and third graders in Title I schools. Many County Health Departments also have Early Childhood Cavities prevention (ECCP) programs that target children between 6-36 months. The ECCP programs provide risk assessments, education, fluoride varnish and application, and referrals.[3] Additionally, ODS and OEBB created The Children's Program, which provides basic dental services for children between the ages of six and twelve and do not have a dental insurance plan.[8] This service covers up to $500 worth of dental services, which meets the program's goal to provide free "basic care to as many children as possible."[9]

Current Recommendations

State and national recommendations for easing the burden of children's oral health contain consistent themes. The "Oregon Smile Survey 2007" report recommends four community-level strategies to reduce tooth decay in children: (1) community water fluoridation, (2) early-childhood cavities prevention programs, (3) school-based dental sealant programs, and (4) school-based fluoride supplement programs.[6] Additionally, preventive care for children has been shown to reduce costs for dental-related care by as much as 40%.[3] The Oregon Department of Human services recommends that prevention must be "continuous throughout life," with prevention and intervention coordinated between medical and dental providers.[3] Fluoride varnish is also recommended as an important early preventive measure that significantly reduces early childhood cavities.[6] The State of Oregon Medicaid Advisory Committee recommends four complementary efforts: (1) expanded access to comprehensive and affordable oral health care; (2) prioritization of preventive treatment; (3) enhanced coordination between oral, physical, and behavioral health services; and (4) and the expansion of the oral health workforce. The National Maternal and Oral Child Health Resource Center also highlights the effectiveness of fluoride varnish in preventing early childhood cavities.[9] If applied bi-annually, fluoride varnish can prevent cavities in primary and permanent teeth for children and adolescents at moderate to high risk of cavities. In a national study of Head Start children between 3 and 5, 81% of active cavities became inactive after 9 months of fluoride varnish treatment.[11]

"The Burden of Oral Disease in Oregon" report aims to achieve an increase in annual dentist visits, early prevention and intervention, and greater coordination of understanding and services. Prevention and early intervention includes: (1) increasing the amount dental visits for pregnant women, (2) increased education for pregnant woman on caring for infant teeth, (3) an increase in regular dentist visits for young children, (4) an increase in fluoride and dental sealant programs for children, and (5) an increase in low-income and racial or ethnic minorities who visit the dentist.[3] The Oregon Oral Health Coalition (OROHC), within their Benton/Linn Counties Pilot Project to Improve Dental Access for Underserved Residents, partnered with the Oregon Department of Human Services to identify various objectives related to children's dental health needs, including: (1) increasing available community resources and utilization of community resources, (2) providing dental screenings and fluoride varnish to Head Start students, (3) supporting dental screenings for school-age children, (4) training pediatricians in oral health education, and (5) providing oral health education for parents and children.[4]

Health care professionals can ease the burden of oral disease in children. The Medicaid Advisory Committee indicates that recruitment of dentists is especially important in rural Oregon, where "capacity is a major issue."[5] According to 2006 "The Burden of Oral Disease in Oregon," dental professionals are in need. About 61% of Oregon counties have "some type of shortage of dental professionals. For children, this shortage is tremendous. For Oregon children under the age of 18, there are 8.5 pediatric dentists per 100,000 children.[3] In communities that also suffer from lower socioeconomic status and geographic isolation, this rate is even lower.

Physicians can also aid dentists in preventing oral disease. With greater frequency of visits and earlier contact, physicians can provide crucial early preventive measures for children, including basic oral examinations, fluoride varnish and screening.[10] Furthermore, preventive measures such as fluoride varnish can be applied by medical professionals with ease.[11] In Oregon, primary care physicians can be reimbursed by the state Medicaid program for providing fluoride

varnish to children six years and under up to four times per year.[13] Evidence suggests that earlier dental treatment reduces both the cost of care because of the decreased need for treatment services compared with "those who delay the first dental visit." [5]

The Oregon Community Foundation (OCF)
Provided by OCF

Current reports show a dire state of need regarding children's dental health in Oregon. Less research has provided county-specific data on the needs of children regarding dental health. As a result, The Oregon Community Foundation announced the Statewide Regional Action Initiative (RAI) in May 2008. Seven regions each were awarded a one-time allocation of up to $1 million to address a regional need and create beneficial, long-lasting change in their communities, though innovative RAI projects.

The Southern Willamette Valley (SWV) Regional Action Initiative (RAI) Committee has chosen to focus on Children's Dental Health for their region, which is comprised of Benton, Linn, Lane and Douglas counties. The three-year Initiative will focus on addressing four areas critical to improving children's oral health in this region: Prevention, Education, Advocacy and Treatment. In September of 2008, the Southern Willamette Valley Regional Action Initiative committee agreed on a process for selecting priorities for the research phase of their RAI. Leadership Council members were surveyed about their key areas of interest and concern within their communities, and a RAI committee was formed. In order to gain insight into issue areas, problems, and resources, RAI committee members chose to conduct a total of 24 key informant interviews with community leaders and service providers in the four counties. Demographics of the region were reviewed and common threads in the four counties discovered. The committee agreed to the following Guiding Principles: seek to create measurable results, avoid duplication of effort (replication of successful models is fine), develop a long term solution, address root causes of problems, engage volunteers, identify best practices, leverage other funding resources, address a critically important regional need, and produce long-lasting partnerships and collaborative efforts. The RAI committee gained consensus to meet the needs of children and youth, ages 0-18. After conducting key informant interviews, the committee decided to learn more about their top rated areas of concern, which were narrowed from five areas to two: Children's Dental Health, and Parenting Education. The committee then heard from speakers, which included: Judy Newman, Co-Director of Early Childhood Cares; Minalee Saks, Executive Director of Birth to Three/Parenting Now!, and Mary Louise McClintock, on OCF's Statewide Parent Education Initiative, on Parent Education. The committee also heard from Helen Higgins, Executive Director, and Amy Harwell of the Corvallis Boys and Girls Club; Dr. Ken Johnson, Volunteer Dentist, on dental health for children from low income families.

While there was strong reasoning and passion for the importance of Parent Education, the committee voted with an overwhelming majority in favor of a Children's Dental Health Initiative for the Southern Willamette Valley RAI because the majority of committee members believed a focus on children's dental health most clearly met their guiding principles, as well as the overall goals for the Initiative.

In the fall of 2009, the committee convened two Children's Dental Health Forums to learn more about barriers, needs, best practices and effective strategies to create systemic change. The committee also learned about preventive strategies from nationally recognized children's dental health researcher Dr. Peter Milgrom, Professor of Dental Health sciences at the University of

Washington, as well as from expert speakers and researchers in Maternal and Child Health, and Pediatric Dentistry at OHSU and OSU. Based on the information learned from the forums and regional experts, the committee narrowed their list of desired goals and outcomes for the Initiative, and finalized a request for proposals, which was disseminated to approximately 85 individuals and organizations from all four counties.

Goals of the Community Resources Scan and Needs Assessment

In order to better identify the needs, assets and resources available in the four county region of Benton, Linn, Lane and Douglas counties, The Oregon Community Foundation commissioned HPRN to conduct the Needs Assessment and Community Resources Scan, and to conduct the scope of work outlined in their request for proposals. The goals of the project are as follows:

1) Conduct an assessment of the resources available and resource needs in the education system in the Southern Willamette Valley
2) Conduct a scan of the resources available in the Southern Willamette Valley
3) Conduct an assessment of the provider community
4) Conduct an assessment of OHP enrollment gaps and the ability of OHP agencies to enroll more children
5) Assess the oral health priorities in the Southern Willamette Valley

The assessment is designed to provide a local overview of the four counties with a particular focus on oral health activities, oral health barriers and local priorities according to the leaders and service providers in the schools, business, and agencies in the communities that make up the four county region. HPRN's approach to the assessment incorporates several components including web-based research, literature and report reviews, in-depth interviews, and surveying. The results from the assessment will assist the RAI Committee in making carefully informed decisions that will most effectively meet identified needs, utilize the resources in the community, and extend the reach of the Initiative.

HPRN began the assessment in March 2010 by developing the survey tools in partnership with OCF. This current report provides OCF, the Regional Action Initiative Board, partners and stakeholders with a summary of the oral health needs, assets and resources available in Benton, Linn, Lane, and Douglas counties.

METHODS

In collaboration, The Oregon Community Foundation (OCF) and Health Policy Research Northwest (HPRN) developed the interview and survey tools used to complete this assessment. The staff at HPRN administered the surveys using *SurveyMonkey*, a web based administration service. The interviews were conducted by HPRN and consultant Susan Stearns, MBA, MA from the Center for Evidence-based Policy at Oregon Health & Sciences University. Additionally, staff at HPRN conducted internet searches, literature reviews, and report summaries.

The survey tools for each target population are included in the Appendices (1 – 7).

Education Community

The education survey was adapted from various validated survey tools used by health departments across the country. The survey was pilot tested with one superintendent, one school nurse, and one teacher in Lane County. The survey collected information from public schools in five areas: (1) respondent background, (2) oral health activities in the schools, (3) barriers to care, (4) dental promotion activities school staff would like to see at the schools, and (5) local dental health priorities. In 2010, there are 41 districts in the four counties. School district nurses and superintendents were initially contacted by phone. School principals and teachers were first contacted by phone or email. Between March 26 and April 16, 2010, approximately 310 school district representatives (health staff, superintendents, principals, first and fifth grade teachers) were contacted by phone or through email, yielding an estimated response rate of 27.4%. The response rate for district and school administrators (health staff, superintendents, principals) was approximately 42.3%. The response rate for district health staff and superintendents was approximately 73.5%. Benton and Linn Counties were combined in the results section because the school district is formally configured as the Linn-Benton school district. There were 84 surveys completed with representatives in the education community.

Resources in the Communities

Grant Funding

Grant Funding sources were located by searching for organizations that directly fund programs or projects within Oregon and the four county region through a grant application process. The search was initiated using the University of Oregon's Foundation Directory, limiting the national search initially by funding for projects related to dental health in Oregon. After this keyword search resulted in a small list, the search was expanded to include grantmakers that fund health-related projects within Oregon. Additional grant funders were located using the Grantmakers of Oregon and Southwest Washington website, http://www.gosw.org/grant/members_of_grantmakers/, the Grantsmanship Center, http://www.tgci.com/funding/top.asp?statename=Oregon&statecode=OR, and *The Oregon Foundation Databook- 9th Edition.* In order to add to this list, funders were located with web searches, again limiting the search to funders who granted funds to programs or projects located in Oregon related to dental health, general health, or children's health. The list of funders was expanded by searching the web for known health-related initiatives and organizations (e.g. United Way local affiliates) and their list of current funders or supporters.

The term “grantmaker” is used to encompass charitable foundations, public charities, corporate giving, independent foundations, family foundations, and charitable trusts who support community organizations through a grant process.

For each funding source, the grant focus (e.g. dental, health, youth), the geographic focus, range of funding (if available), type or organization, deadlines and timeline for submission (if available), contact information, and description of the grantmaking organization were identified. The search was further limited to ensure all funders could potentially award within the four counties in the South Willamette Valley (SWV) Regional Action Initiative (RAI).

Additionally, a search was conducted with the federal agencies HRSA, CDC, NIH, and local and state foundations that grant funding in Oregon to identify programs or agencies that had received funding in the last two years for dental health projects in the four counties.

Agencies

The agency survey was created by HPRN and pilot tested with Head Start of Lane County and Pacific Continental Bank. The survey collected information in five areas: (1) respondent background, (2) agency information that includes an assessment of volunteers, (3) donated supplies/equipment, funding and program support, (4) oral health activities in the community, and (5) local dental health priorities. To build the list of the agencies in the four counties that commit resources to oral health, extensive web searches and interviews were conducted with key leaders in the oral health field. Additional names were collected using a snowballing method with each person that completed a survey being asked to identify additional contracts that have knowledge about children’s oral health activities, increasing the source population as the surveys were completed. There were 35 surveys were completed, resulting in a response rate of 85%.

Agencies were first contacted by phone and requested to complete the survey by phone. At that time, and upon request, the survey was also distributed to agencies through e-mail and fax. In the subsequent weeks, follow up phone calls were made to agencies that requested to complete the survey by fax or e-mail but had yet to do so. During the week of April 12, 2010, the survey was sent by e-mail to agencies that had not yet responded or been accessible via phone.

In addition to the survey, an initial list was created of personal contacts at the state and local level for targeted phone interviews of individuals involved with and knowledgeable about dental services, dental initiatives, healthcare policy, and health services for children. There were 19 individuals on the list, of which 37% agreed to be interviewed. As interviews were conducted, each individual was asked for additional contacts in the four specific counties of this project.

Provider Community

Pediatricians and Obstetricians

The provider survey was piloted tested with three licensed and practicing physicians in Lane County. The survey collected information in four areas: (1) respondent background, (2) experience with payment structures, (3) experience with oral health screening, and (4) local

dental health priorities. In total 15 surveys were completed yielding an estimated response rate of 7%. While offices for all 203 pediatricians and obstetricians were contacted by phone, email, or fax, direct communication with physicians was limited. This was primarily due to the fact that physicians were usually engaged with patients and unable to be reached by phone. Additionally, many physician offices have operating procedures that do not allow for the dissemination of direct contact phone lines or emails. Most frequently, physician office staff only offered a fax number as means for communication and explanation of the survey. The percentage of faxed documents that reached the intended physician is unknown.

To address the small sample size, HPRN has partnered with Lipa (Medicaid administrator in Lane County) to blast fax a final request for survey completion in the month of May to the targeted providers. Should the attempt result in a substantive increase in the response rate, HPRN will submit an amended report to OCF.

Dental Programs

In order to discover the scope of university dental programs within the four county regions, a web search was completed to locate all the dental programs. Within Lane, Linn, Benton, and Douglas counties, university programs are limited to dental hygienist and dental assistant programs. Prior to scanning the web pages for each program, a list of categories of interest was developed. The categories were designed to collect location, number of students accepted/not accepted, required clinical practice for degree completion, number of students graduating, accreditation, program of study, and on-site public dental clinic and cost. After this information was compiled from the web sites, the directors of each program were contacted for further information not acquired from the web. The interviews were designed to collect information on application numbers over the past 3-5 years (increase, decrease, consistent). Within the four counties, there are three community college dental hygiene programs and three dental assisting programs.

Licensed Access Permit (LAP) Hygienist and Hygienists

A list of LAP's and hygienists was obtained from the Examination and Licensing Manager of the Oregon Board of Dentistry. In total, there are 17 LAP's and 541 hygienists in the four counties. An LAP is a Licensed Access Permit hygienist that has a special permit to provide preventative and dental hygiene services in specified settings. While the LAP's in the four counties were not included in the surveying, a list of LAP's has been provided to The Oregon Community Foundation as potential partners for the SWV RAI.

Dentists

The dental provider survey was pilot tested with two board certified dentists in Lane County. The survey collected information in three areas: (1) respondent background, (2) office operations, and (3) local dental health priorities. Extensive web searches and interviews with oral health leaders were conducted to build the list of dental providers; in 2010, there are 366 dentists in the four counties. There were 45 surveys (12 %) were completed.

Providers were first contacted by phone and requested to complete the survey by phone. At that time and upon request, the survey was also distributed to dentists through e-mail and fax. In the subsequent weeks, follow up phone calls were made to providers who requested to

complete the survey by fax or e-mail but had yet to do so. When dentists were not available to complete the survey, office managers and administrative assistants, with authority to represent the dental practice, completed the survey.
Health Plans in the Communities

Administrators

Oregon Health Plan Administrators and Dental Care Organization Administrators were identified using the Division of Medical Access Programs (DMAP) annual publication: http://www.oregon.gov/DHS/healthplan/data_pubs/planlist/main.shtml. In total, there were eight physical health or dental health plan administrators identified to represent Lipa, DCIPA (Douglas County IPA), InterCommunity Health Plans, and Advantage Dental Services, Capitol Dental Care, ODS Community Health, and Willamette Dental Group. These individuals were asked to complete an interview about the dental and physical needs of their clients, Oregon Health Plan members. Each person identified was called to complete an interview and survey, as well as sent an email with the questions attached. Five administrators who oversee the administration of Medicaid benefits in the region completed either the telephone interview or the survey: Lipa (physical health), DCIPA (physical health), InterCommunity Health Plans (physical health), ODS Community Health Plan (dental), and Capitol Dental Care (dental)

In addition to the survey, an initial list was created of personal contacts at the state and local level for phone interviews of individuals involved with dental care organizations and knowledgeable about dental services, dental initiatives, healthcare policy, and health services for children. As interviews were conducted, each individual was asked for additional contacts in the four specific counties of this project.

Program Managers and Caseworkers

Program Managers were identified using the state of Oregon Department of Health and Human Services website: http://www.oregon.gov/DHS/localoffices/locations.shtml. Program Managers were then contacted and administered a survey by HPRN using *SurveyMonkey,* a web based survey administration service. The survey collected information in four areas: (1) respondent background, (2) Oregon Health Plan activities, and (3) local dental health priorities. For the fourth area, program managers were asked if the staff they supervised would be interested in taking the survey, in hopes of gaining access to caseworkers who have direct contact with clients. This allowed the source population to increase from eight respondents to forty. However, shortly after calls to the caseworkers were initiated, the state office of the Division of Medical Assistance Programs (DMAP) called to inform HPRN that administration of surveys requires a state approval process. The approval process was initiated, but could not be completed within the project timeline. However, the results section includes a summary of the 11 surveys that were completed. The sample included five from Linn/Benton County, three from Lane County, and three from Douglas County.

Eligible Children

The Oregon Community Foundation requested an estimate the number of children between the ages of 0-12 years old that qualify for the Oregon Health Plan (OHP) but are currently not enrolled in the program.

The methodology to arrive at estimation is detailed below. In the fall of 2009, the Division of Medical Assistance Programs released an estimate of the number of uninsured children (<19) at or below 200% of poverty by county. OHP eligibility corresponds with the poverty level used in this estimate (Table 1).

Table 1. Number of Uninsured Children (<19 years old) who Qualify for Oregon Health Plan (OHP) as Reported by the Division of Medical Assistance Programs (DMAP)

County	Number of Uninsured Children <19 Who Qualify for OHP*
Benton	830
Douglas	692
Lane	2,369
Linn	935

*As of December, 2008

The above estimates were adjusted to exclude children above 12 years old, based on census estimates published by the Population Research Center (PRC) at Portland State University (Table 2). The PRC is the partner of the U.S. Census Bureau for Oregon population estimates and their estimates are the official source of population data for the State of Oregon and the U.S. Census Bureau.

Table 2. Population Estimates by Age Group, 2008, as Reported by the Population Research Center at Portland State University

County	0-4	5-9	10-14	15-17	18-19
Benton	3965	4203	4741	4935	3290
Douglas	5644	5912	6776	4114	2743
Lane	18348	19427	21151	14719	9813
Linn	7145	7345	7902	4648	3099

The following assumptions were made and used in the final calculation:

- Uninsured estimates do not include 19 year olds, so they are excluded from the calculations
- There is an equal number of 18 and 19 year olds in the population, so the 19 year olds are excluded from the population of 18-19 year olds by reducing the number in half
- The number of 0-14 year olds who qualify for OHP but are not enrolled can be calculated as follows for each county:

$$\left[(\#\ unisured\ in\ poverty\ 0-18\ years)x\ \left(\frac{\#\ children\ 0-14\ years}{Total\ \#\ children\ 0-18\ years}\right)\right]$$

- There is an equal number of 10-12 year olds and 13-14 year olds
- Multiplying the population estimate for 10-14 year olds by 3/5 will give the population estimate of 10-12 year olds
- The number of 0-12 year olds that qualify for OHP but are not enrolled can be calculated as follows for each county:

$$\left[(\#uninsured\ in\ poverty\ 0-18\ years)*\left(\frac{\#\ children\ 0-12\ years}{Total\ \#\ children\ 0-18\ years}\right)\right]$$

RESULTS

A total of 208 surveys were completed for the needs assessment and resources scan. The results of this section are organized according to the four goals of this particular project, which are:

1) Conduct an assessment of the resources available and resource needs in the education system in the Southern Willamette Valley
2) Conduct a scan of the resources available in the Southern Willamette Valley
3) Conduct an assessment of the provider community
4) Conduct an assessment of OHP enrollment gaps and the ability of OHP agencies to enroll more children
5) Assess the oral health priorities in the Southern Willamette Valley

In each section, the results are presented in tables, graphs and/or narrative formats when appropriate. Where possible, the results are stratified by county, including Benton, Linn, Lane and Douglas counties. However, in the case where there are too few respondents, results were reported in aggregate for the entire four counties. Additionally, as mentioned in the methods section, Linn and Benton counties were combined in the results section of Goal 1 because the current formal structure of the school district combines Linn and Benton counties.

South Willamette Valley (SWV) Population Estimates

Table 3 reports the 2008 population estimates for the SWV counties of interest. Population estimates were utilized to target accurate representation of survey responses and interviews in the sampling approach.

Table 3. Population estimates of Benton, Linn, Lane and Douglas counties, as reported by the Population Research Center at Portland State University.

Population Estimates	Benton County	Linn County	Lane County	Douglas County
Population (All)	86,120	110,185	345,880	105,240
Population (0-19)	21,134	30,139	83,458	25,189
% of the Total Population for the Four Counties	17%	13%	53%	16%
% of the 0-19 Population for the Four Counties	19%	13%	52%	16%

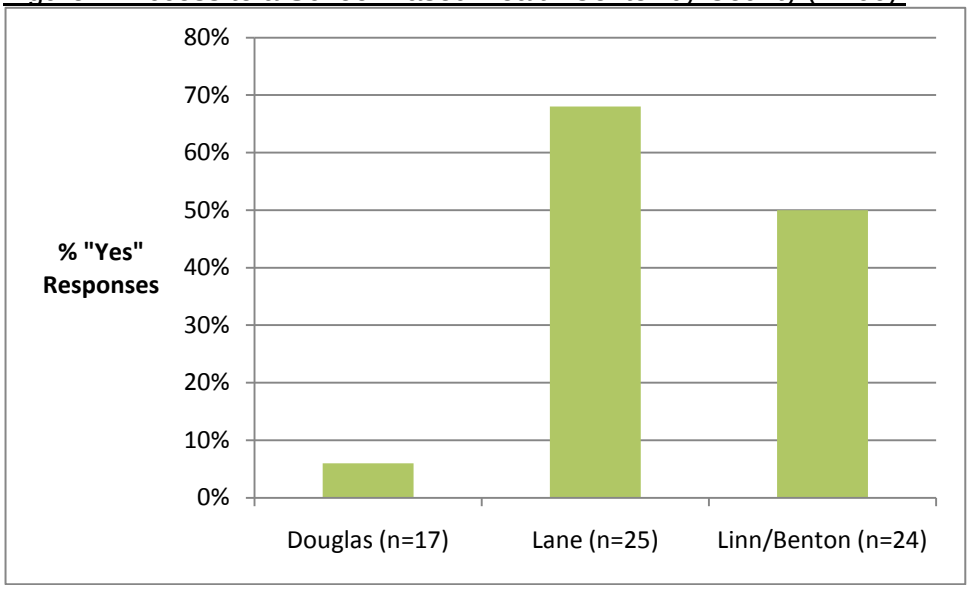
Source: Population Research Center (2008 estimates).

Goal #1: Conduct an assessment of the resources available and resource needs in the education system in the Southern Willamette Valley

Representatives of the school districts in Linn-Benton, Lane and Douglas counties were surveyed to assess the resources available and resource needs in the various school districts in the Southern Willamette Valley. The results that follow are representative of the number of children in the four districts. In total there are 12 school districts in Linn-Benton County, 16 school districts in Lane County, and 13 school districts in Douglas County.

Respondents of the education survey were asked if students in their district had access to a School-Based Health Center (SBHC). Results are reported in Figure 1 below.

Figure 1. Access to a School-Based Health Center by County (N=66).



Source: Education Survey, question 2.2.

Lane County public school representatives conveyed having the greatest amount of access to School Based Health Centers (68%), according to respondents. Eugene 4J and Springfield Public schools, the largest school districts in Lane County, have SBHCs, with Bethel School District having partial access to the 4J SBHC. However, there are 13 school districts, mainly in the rural areas of Lane County that do not have access to a school-based health center. Fifty percent (50%) of representatives from Linn and Benton Counties expressed that their students have access to a SBHC. According to the Oregon School-Based Health Care Network, there are two SBHCs in Linn-Benton County, but both centers are located in Benton County. Douglas County expressed the least amount of access (6% of respondents), with only the two larger school districts (Douglas and Roseburg) having a SBHC in their high school.

Respondents were then asked about the frequency of school-based dental promotion activities to assess the activities that are currently taking place. Tables 4 to 6 report results by county.

Table 4. Percent of School-based Dental Promotion Activities in Linn-Benton County School District (n=32).

Promotion Activity	Annually (%)	Two - three times a year (%)	Once a month (%)	Once a week (%)	Everyday (%)	As needed (%)	Never (%)
Dental Screenings	75%	0%	0%	0%	0%	8%	17%
Iodine wipes and fluoride varnish	4%	0%	0%	0%	0%	0%	96%
Mouth guard protection	0%	0%	0%	0%	0%	8%	92%
Fluoride varnish	42%	0%	0%	4%*	0%	0%	79%
Information on dental sealants	21%	0%	0%	0%	0%	13%	67%
Teeth brushing and flossing	25%	4%	0%	0%	4%	4%	63%
Provision of a list of dentists in the community	4%	0%	0%	0%	0%	33%	63%
Provision of a list of referral sources in the community	4%	4%	0%	0%	0%	38%	54%
Nutritional education	25%	25%	0%	0%	0%	8%	42%
Other	8%	4%	0%	17%	0%	17%	63%

Source: Education Survey, Question 2.3

* Respondent noted that their school provides fluoride rinse or tablets once a week, not fluoride varnish.

The most frequent activity taking place in the Linn-Benton County schools was annual dental screenings (75% of respondents). Other frequent annual activities included annual fluoride varnish treatments for students (42%), nutritional education 1-3 times per year (50%), annual teeth brushing and flossing at school (25%), and the provision of information on dental sealants (21%). Respondents noted that nutritional education related to dental health was generally a part of school health curriculum. Provision of a list of dentists or other referral sources in the community generally happens on an "as needed" basis (approximately 33% and 37.5% respectively). Over ninety percent of respondents reported not providing mouth guard protection for physical education classes (92%) or using iodine wipes (96%). "Other" activities noted that did not fall within a pre-defined category included weekly fluoride rinse programs, mobile dental van participation, and dental sealants provided once a year. The most frequent activities reported that were not included in the table were weekly in-class fluoride rinse or fluoride tablet programs.

Table 5. Current Frequency of School-Based Dental Promotion Activities in Lane County School District (n=33)

Promotion Activity	Annually (%)	Two - three times a year (%)	Once a month (%)	Once a week (%)	Everyday (%)	As needed (%)	Never (%)
Dental Screenings	64%	8%	0%	0%	0%	4%	24%
Nutritional education	40%	12%	0%	0%	0%	4%	44%
Teeth brushing and flossing	28%	4%	0%	0%	4%	8%	56%
Information on dental sealants	24%	20%	0%	0%	0%	12%	44%
Mouth guard protection	4%	0%	0%	0%	0%	4%	92%
Iodine wipes and fluoride varnish	8%	0%	0%	0%	0%	4%	88%
Fluoride varnish	4%	24%	0%	4%	0%	4%	64%
Provision of a list of dentists in the community	4%	0%	0%	0%	0%	44%	52%
Provision of a list of referral sources in the community	0%	8%	0%	0%	0%	68%	24%
Other	12%	0%	0%	12%	0%	4%	72%

Source: Education Survey, Question 2.3

The most frequent activity taking place in the Lane County schools was annual dental screenings (64% of respondents). Other frequent annual activities included nutritional education to promote dental health 1-3 times per year (52%), teeth brushing and flossing at school 1-3 times per year (32%), and the provision of information on dental sealants 1-3 times per year (44%). Respondents noted that nutritional education related to dental health was generally a part of school health curriculum. Provision of a list of dentists or other referral sources in the community generally happens on an "as needed" basis (52% and 24% respectively). Over ninety percent of respondents reported not providing mouth guard protection for physical education classes with 88% reporting no use of iodine wipes. Over 50% of respondents did not provide fluoride varnish in the schools, teeth brushing or flossing, and did not provide a list of dentists in the community for students. "Other" activities noted that did not fall within in a pre-defined category were dental sealant programs within the school, referrals to outside agencies for dental sealants, taking students to the Lane Community College free dental screening day, fluoride rinse programs, a volunteer dentist who participates in the health screening day, referrals to Lane County dental sealant program and McKenzie River Lions Club, and dental vans (Tooth Taxi).

Table 6. Current Frequency of School-Based Dental Promotion Activities in Douglas County School District (n=19)

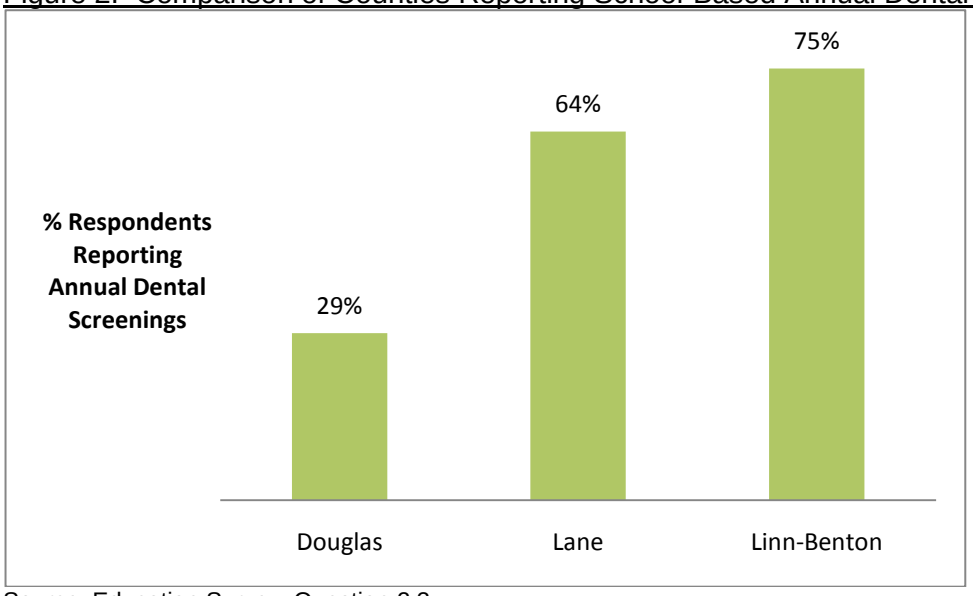
Promotion Activity	Annually (%)	Two - three times a year (%)	Once a month (%)	Once a week (%)	Everyday (%)	As needed (%)	Never (%)
Mouth guard protection	0	0	0	0	0	0	100%
Fluoride varnish	0	0	0	0	0	0	100%
Iodine wipes and fluoride varnish	0	0	0	0	0	0	100%
Provision of a list of dentists in the community	12%	0	0	0	0	6%	82%
Information on dental sealants	24%	0	0	0	0	0	77%
Dental Screenings	29%	0	0	0	0	0	71%
Provision of a list of referral sources in the community	6%	0	0	0	0	24%	71%
Teeth brushing and flossing	12%	6%	6%	0	0	6%	71%
Nutritional education	12%	24%	0	0	0	12%	53%
Other	6%	0	0	6%	0	6%	82%

Source: Education Survey, Question 2.3

The most frequent activity taking place in the Douglas County schools was annual dental screenings (29%). Other frequent activities included nutritional education provided 1-3 times per year to promote dental health teeth brushing and flossing at school 1-3 times per year, and the provision of information on dental sealants. Provision of a list of dentists was not commonly reported, while the provision of a list of other referral sources in the community generally happens on an "as needed" basis. One hundred percent of respondents reported not providing mouth guard protection for physical education classes, fluoride varnish treatment, iodine wipes, or information on dental sealants. "Other" activities noted by respondents were dental van or Tooth Taxi visits (provided in partnership with a community dentist) and oral health (including teeth brushing) as part of the general health curriculum taught by teachers.

Overall, the most frequent activity reported by the four counties was annual dental screenings, generally performed in conjunction with other health screenings. Figure 2 below compares the percentage of annual dental screenings taking place in the public school of these four counties.

Figure 2. Comparison of Counties Reporting School-Based Annual Dental Screenings (N=66)



Source: Education Survey, Question 2.3

Annual dental screenings were reported by three-quarters of the school representatives in Linn-Benton County Schools, with just over 60% in Lane County and fewer than 30% in Douglas County schools.

The most infrequent activities reported by the school representatives were fluoride varnish, anti-bacterial iodine wipes, teeth brushing and flossing, information on dental sealants, and the provision of a referral list for community programs.

Respondents were next asked to identify which of the listed activities they perceived as needed in the schools, regardless of whether they were currently provided in the schools (Table 8). Respondents were asked to check all that apply.

Table 7. Types of Dental Promotion Activities Perceived as Needed in the Schools by County (N=66).

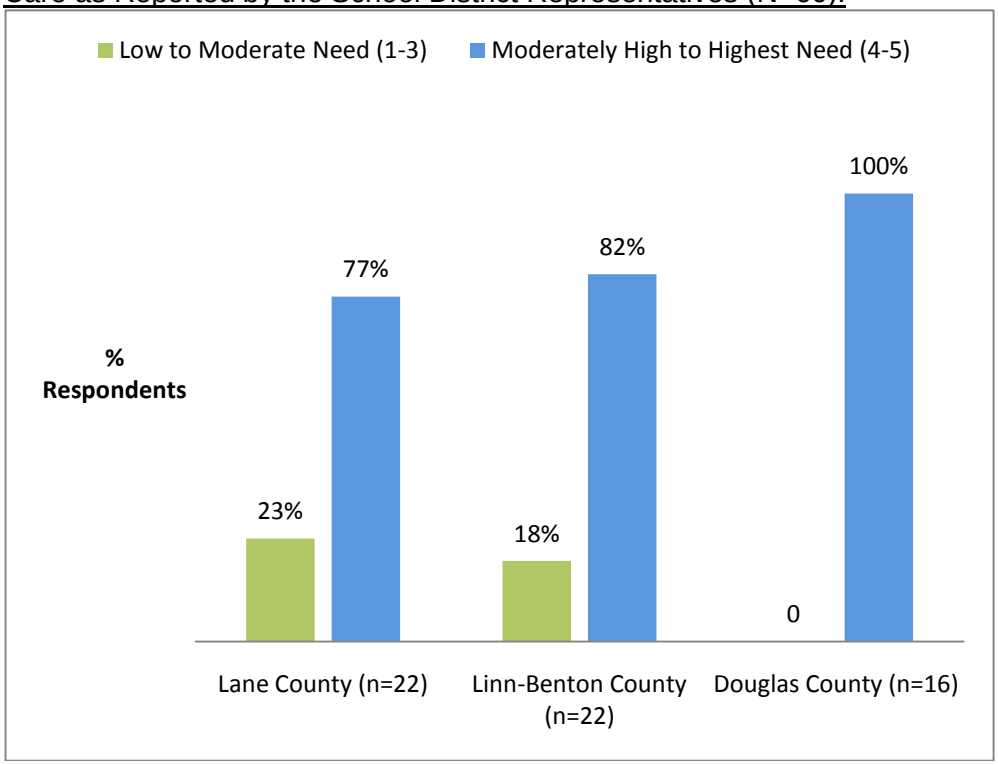
Promotion Activity	Linn-Benton (n=24) (%)	Lane (n=25) (%)	Douglas (n=17) (%)
Dental Screenings	75%	80%	88%
Nutritional education	79%	80%	59%
Information on dental sealants	63%	64%	59%
Providing treatment in the schools for children with oral health needs	63%	80%	65%
Provision of a list of referral sources in the community	63%	84%	35%
Teeth brushing and flossing	63%	68%	35%
Provision of a list of dentists in the community	58%	64%	47%
Mouth guard protection	38%	36%	12%
Fluoride varnish	58%	52%	29%
Iodine wipes	33%	16%	24%
Other	0%	8%	18%

Source: Education Survey, Question 2.4

The needed activity most frequently reported by all county schools were dental screenings performed at schools (75%, 80%, 88%). Nutritional education to promote dental health (Linn-Benton 79%, Lane 80%, and Douglas 59%) also ranked near the top perceived needs. Respondents from all counties also expressed a relatively high need for providing treatment in the schools for children with oral health needs (63%, 80%, 65%). The least frequently reported needs in all counties were need for iodine wipes and mouth guard protection. "Other" activities noted included mobile dental vans, teeth flossing rather than brushing, dentists coming to school to provide treatment, fluoride rinse programs, information on iodine wipes, access to a School-Based Health Center, and activities for teachers to do within the classroom.

Respondents were asked to rank on a scale of 1-5 how needed access to preventive dental services and dental care was for their students. Only two respondents of the 66 who answered this question ranked need for access at the lowest priority (1). Therefore, scale categories were collapsed into low to moderate need (1-3) and moderately high to highest need (4-5) for comparison. During telephone surveys, school staff who rated the need for access as a "4" most often verbally qualified their ranking as a "high" need.

Figure 3. County Comparison of Need for Access to Preventive Dental Services and Dental Care as Reported by the School District Representatives (N=60).

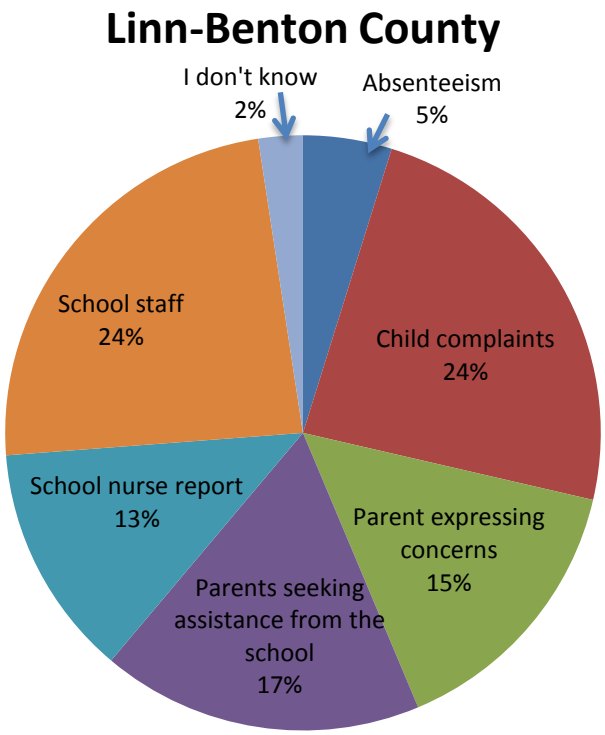


Source: Education Survey, Question 3.1

All (100%) of Douglas county representatives reported a moderate-high to highest need for access to preventive dental services. In comparison, 23% of Lane County and 18% of Linn-Benton County respondents ranked access to preventive dental services and care as a low or moderate level need.

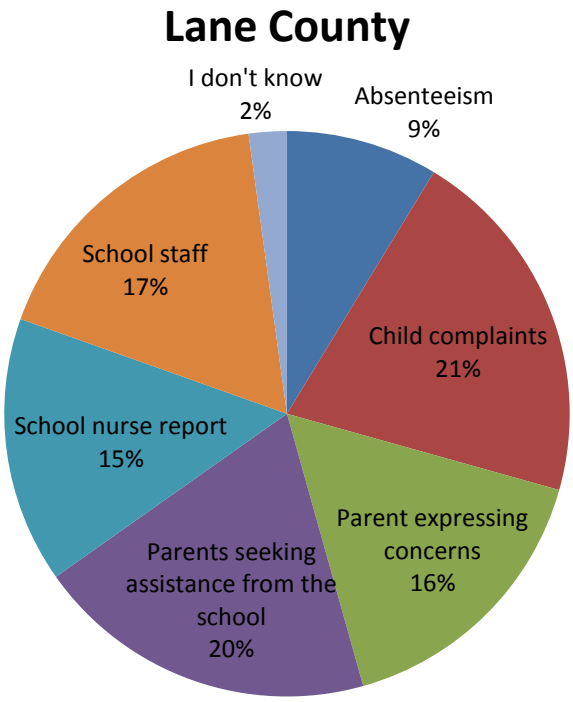
Figures 4 to 6 below represent county-level responses to the survey question of how school representatives (or their staff) learn about barriers to accessing dental care among their students. Respondents were asked to check all that apply.

Figure 4. How School District Representatives Learn About Barriers to Accessing Services in Linn-Benton County (n=24)



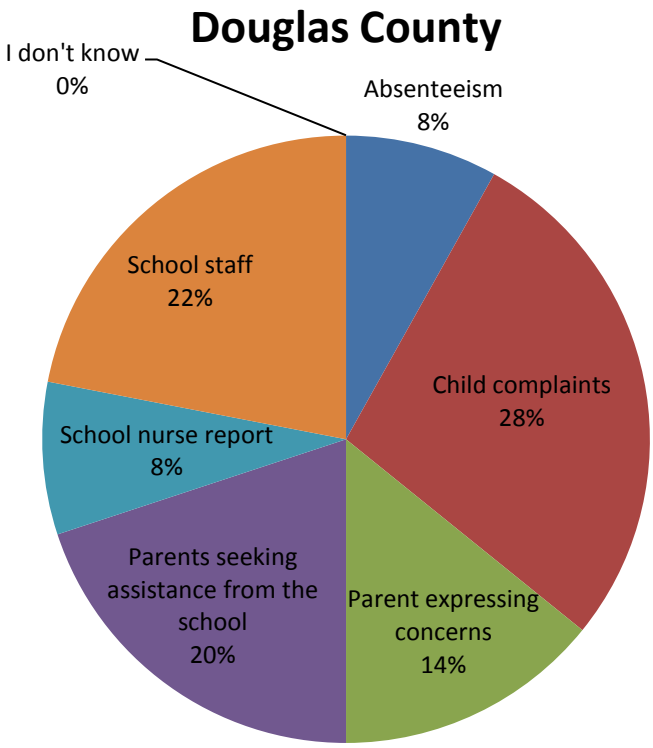
Source: Education Survey, Question 3.2

Figure 5. How School District Representatives Learn About Barriers to Accessing Services in Lane County by School District Representatives (n=25)



Source: Education Survey, Question 3.2

Figure 6. How School District Representatives Learn About Barriers to Accessing Services in Douglas County by School Representatives (n=17)

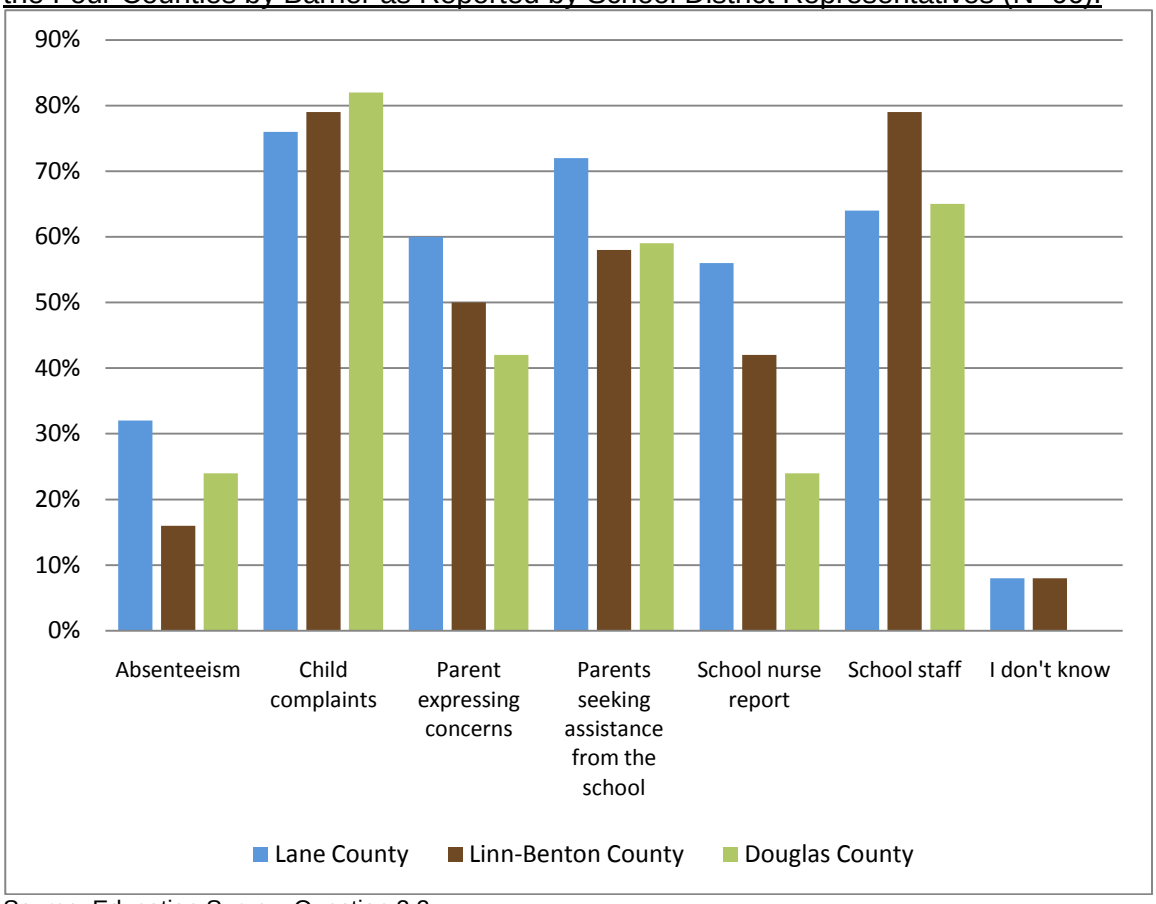


Source: Education Survey, Question 3.2

In Linn-Benton County schools, respondents said they were made aware of barriers most frequently through child complaints (24%) and school staff (24%). In Lane County, respondents became aware of barriers most frequently through child complaints (21%) and parents seeking assistance from schools (20%). In Douglas County, child complaints (28%), school staff (22%), and parents seeking assistance from schools (20%) represented the most frequent ways respondents were made aware of barriers to access to services.

For a cross-county comparison, Figure 7 below displays the percent of responses according to the specific barrier for each county.

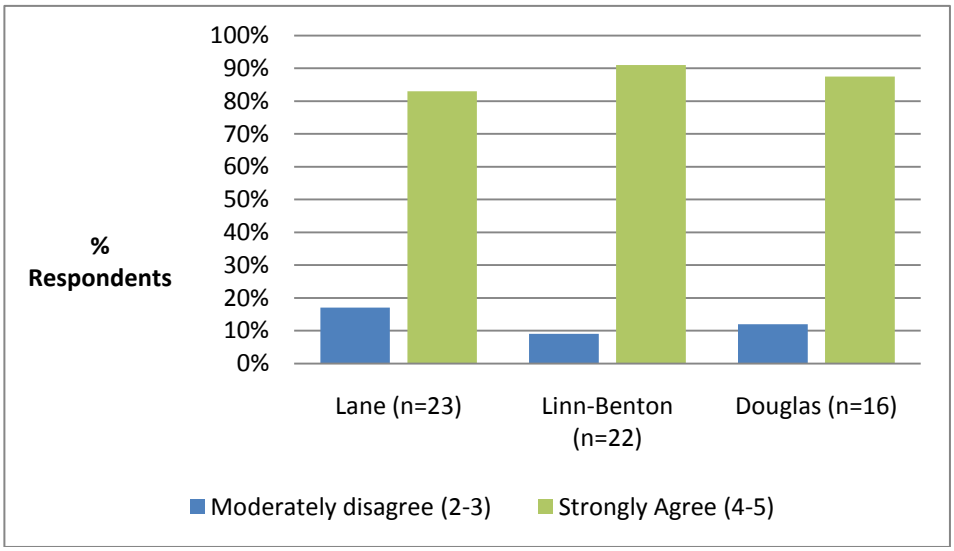
Figure 7. How School District Representatives Learn About Barriers to Accessing Services in the Four Counties by Barrier as Reported by School District Representatives (N=66).



Source: Education Survey, Question 3.2

Across the four counties, the top three ways school representatives were made aware of barriers to accessing necessary services were school staff, child complaints, and parents seeking assistance from schools. The least frequently noted was student absenteeism. The surveyor then asked the following question: "How strongly do you agree with the following statement: Unmet dental needs negatively impact academic performance?" The survey-defined response categories were "1 indicates you strongly disagree, 5 indicates you strongly agree."

Figure 8. Unmet Dental Needs Negatively Impact Academic Performance as Reported by School District Representatives (N=61)



Source: Education Survey, Question 3.2

School representatives from all four counties overwhelmingly agreed that unmet dental needs negatively impacts academic performance. No respondent reported that they strongly disagreed, with 17% in Lane, 9% in Linn-Benton, and 12% in Douglas County reporting that they moderately disagreed with the idea that unmet dental needs negatively impact academic performance.

School representatives were next asked to rank the top three most frequent barriers to accessing needed dental care from a pre-defined list. Tables 8 through Table 10 highlight the results.

Table 8. Most Frequent Barriers to Accessing Needed Dental Care in Linn-Benton County as Reported by School District Representatives (n=24)

Barrier	Linn-Benton County (%)
Lack of money	83%
Inadequate insurance	71%
Parents are unaware of when their child/children should see a dentist	33%
Don't know where or how to obtain dental care	25%
Few dentists accept OHP	21%
Dental care is a low priority	17%
Transportation	17%
Shortage of dentists	4%
Time spent on wait list	0%
Time it takes to get an appointment	0%
Other	4%

Source: Education Survey, Question 4.2

The three most frequent barriers to accessing needed dental care reported by Linn-Benton County school representatives were lack of money (83%), inadequate insurance (71%), and

parents are unaware of when their child/children should see a dentist (33%). "Other" activity noted was enrolling eligible families in OHP.

Table 9. Most Frequent Barriers to Accessing Needed Dental Care in Lane County as Reported by School District Representatives (n=25)

Barrier	Lane County (%)
Lack of money	80%
Inadequate insurance	76%
Transportation	32%
Dental care is a low priority	24%
Few dentists accept OHP	24%
Dental care is a low priority	24%
Few dentists accept OHP	24%
Don't know where or how to obtain dental care	20%
Time it takes to get an appointment	12%
Parents are unaware of when their child/children should see a dentist	16%
Shortage of dentists	0%
Time spent on wait list	0%
Other	8%

Source: Education Survey, Question 4.2

The three most frequent barriers to accessing needed dental care reported by Lane County school representatives were lack of money (80%), inadequate insurance (76%), and transportation (32%). "Other" activities noted were parental participation and parents' knowledge of the importance of dental care, especially with baby teeth.

Table 10. Most Frequent Barriers to Accessing Needed Dental Care in Douglas County as reported by School District Representatives (n=17)

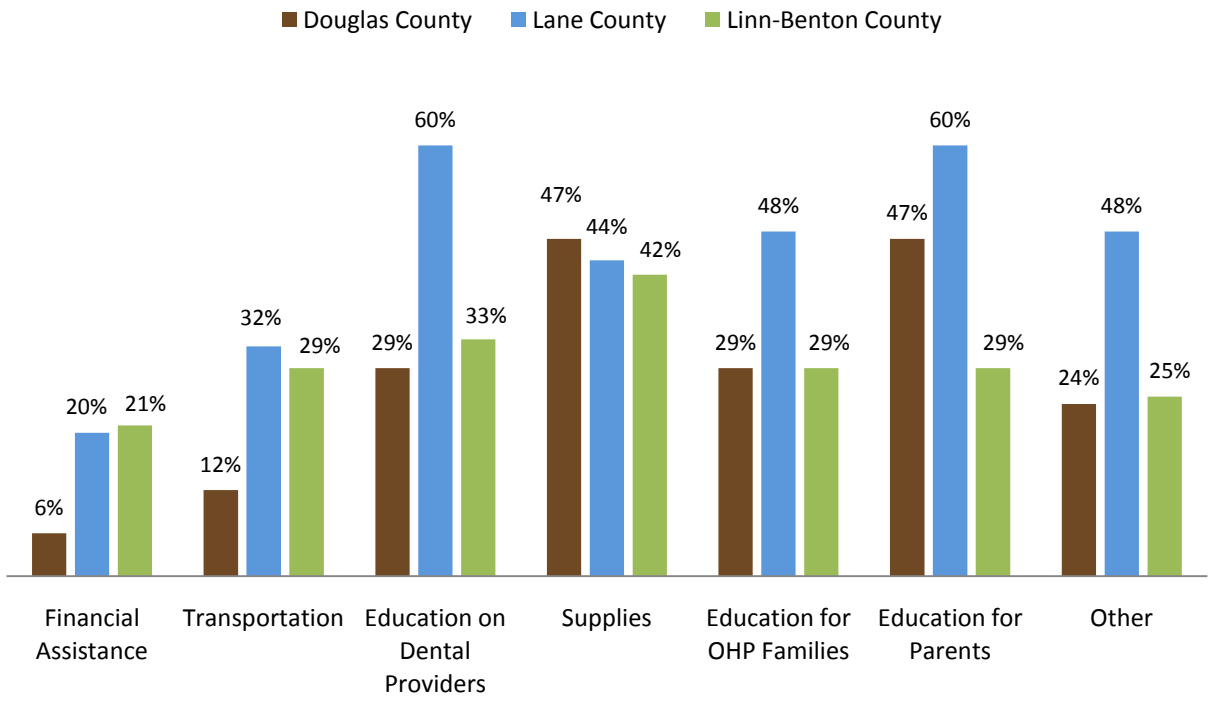
Barrier	Douglas County (%)
Inadequate insurance	94%
Lack of money	82%
Dental care is a low priority	53%
Transportation	29%
Don't know where or how to obtain dental care	29%
Parents are unaware of when their child/children should see a dentist	18%
Few dentists accept OHP	12%
Time spent on wait list	6%
Time it takes to get an appointment	6%
Shortage of dentists	0%
Other	0%

Source: Education Survey, Question 4.2

The three most frequent barriers to accessing needed dental care reported by Douglas County school representatives were inadequate insurance (94%), lack of money (82%), and dental care is a low priority (53%).

Next, school representatives were asked to report from a pre-defined list all current activities completed within the schools to help children access dental care. Figure 9 displays a cross-county comparison of activities being completed by schools to help children access dental care.

Figure 9. Activities Completed by Schools to Help Children Access Dental Care, by County (N=66)



Source: Education Survey, Question 4.3

The most consistently reported activity was the provision of supplies (such as toothbrushes, floss and/or paste), with approximately 42% of Linn-Benton, 44% of Lane, and 47% of Douglas County school representatives reporting their school provided supplies. The least common activity reported was the provision of financial assistance, with Linn-Benton and Lane reporting approximately 20% and Douglas under 6%. "Other" activities noted were providing access to dental vans/mobile dental programs, referrals to School Based Health Centers, health curriculum, information sent home with students on local programs (such as the Boys and Girls Club), utilizing a county fluoride and sealant program, subsidizing visit to Lane Community College Dental Clinic, and bringing volunteer dentists to schools.

And finally, School District representatives were asked to rank a list of priorities from lowest priority to highest priority for the children in their school district. Tables 11 through Table 13 display the results by County. During telephone surveys, school staff who rated the need for access as a "4" most often verbally qualified their ranking as a "high" need, therefore scale categories of 4-5 were quantified as "high need".

Table 11. Local Priorities for Improving Oral Health in Linn-Benton County as Reported by School District Representatives (n=32)

Priority	1 Lowest Priority (%)	2 (%)	3 (%)	4 (%)	5 Highest priority (%)
School based dental screening	0	5%	10%%	24%	62%
Provide more information on brushing and flossing	0	5%	14%	29%	52%
Increase the number of dentists willing to take OHP	0	5%	11%	37%	47%
Provide supplies	0	0	15%	40%	45%
Provide information on tooth decay in infants	5%	14%	10%	29%	43%
Improve coordination between providers and services	0	5%	5%	50%	40%
School based dental clinics	10%	19%	19%	14%	38%
Increase the rate of reimbursement for dentists taking OHP	5%	10%	15%	35%	35%
Provide more information on nutrition	0	10%	10%	48%	33%
Provide more education on maternal oral health	0	19%	29%	19%	33%
Provide more information on dental sealants	10%	5%	29%	24%	33%
School based flossing and brushing	15%	20%	15%	20%	30%
Require dental exams at school entry	10%	5%	35%	25%	25%
Support school based anti-bacterial wipes and varnish program	24%	19%	33%	14%	10%

Source: Education Survey, Question 5.1

The top three most frequently rated high to highest priority (score of 4-5) for Linn-Benton County were improving coordination between providers and services (90%), school based dental screenings (86%), and providing supplies (85%). The most frequently rated low priority was supporting school based anti-bacterial iodine wipes and varnish program (24% giving a rating of 1 out of 5).

Table 12. Local Priorities for Improving Oral Health in Lane County as Reported by School District Representatives (n=33)

Priority	1 Lowest Priority (%)	2 (%)	3 (%)	4 (%)	5 Highest priority (%)
School based dental screening	0%	0%	18%	27%	55%
Provide more information on brushing and flossing	0%	14%	14%	27%	46%
Increase the number of dentists willing to take OHP	0%	5%	23%	23%	46%
Provide information on tooth decay in infants	14%	18%	18%	9%	40%
Provide supplies	0%	0%	45%	15%	40%
Improve coordination between providers and services	0%	0%	26%	37%	37%
Increase the rate of reimbursement for dentists taking OHP	5%	10%	30%	20%	35%
Provide more information on nutrition	0%	5%	23%	40%	31%
School based flossing and brushing	5%	18%	46%	0%	31%
Provide more information on dental sealants	5%	9%	18%	40%	27%
Provide more education on maternal oral health	14%	27%	27%	9%	23%
School based dental clinics	14%	9%	27%	27%	23%
Support school based anti-bacterial wipes and varnish program*	5%	5%	5%	10%	15%
Require dental exams at school entry	31%	36%	23%	0%	9%

Source: Education Survey, Question 5.1

*Five respondents in Lane County expressed hesitation with this question. These five did not support anti-bacterial iodine wipes, but supported fluoride varnish or fluoride rinse programs.

The top three most frequently rated high to highest priority (score of 4-5) for Lane County were supporting school-based dental screening (82%), improving coordination between providers and services (74%), and providing more information on brushing and flossing (73%). The most frequently reported low priority was requiring dental examinations at school entry (31% giving a rating of 1, or lowest priority).

Table 13. Local Priorities for Improving Oral Health in Douglas County as Reported by School Representatives (n=19)

Priority	1 Lowest Priority (%)	2 (%)	3 (%)	4 (%)	5 Highest priority (%)
Increase the number of dentists willing to take OHP	0%	6%	19%	13%	63%
Provide more information on brushing and flossing	0%	0%	19%	25%	56%
School based dental screening	0%	0%	19%	31%	50%
Provide more information on dental sealants	0%	19%	19%	19%	44%
Provide supplies	0%	0%	38%	25%	38%
Provide more information on nutrition	0%	13%	13%	38%	38%
Increase the rate of reimbursement for dentists taking OHP	6%	6%	44%	13%	31%
School based dental clinics	13%	13%	31%	13%	31%
Provide information on tooth decay in infants	0%	13%	38%	25%	25%
Improve coordination between providers and services	0%	6%	19%	56%	19%
School based flossing and brushing	6%	13%	25%	38%	19%
Require dental exams at school entry	19%	19%	32%	19%	13%
Provide more education on maternal oral health	6%	19%	44%	19%	13%
Support school based anti-bacterial wipes and varnish program**	25%	13%	25%	25%	13%

Source: Education Survey, Question 5.1
**One respondent supported only fluoride varnish, not iodine wipes.

The top three most frequently rated high to highest priority (score of 4-5) for Douglas County school representatives were school based dental screening and providing more information on brushing and flossing (both at 81%), increasing the number of dentists who accept OHP patients (76%), and providing more information on nutrition (74%). The most frequently rated low priority was requiring dental examinations at school entry (19% giving a rating of 1 out of 5).

In a cross-county comparision, the largest disparity in moderately high to highest priority resulted in priority given to requiring dental examinations at school enrollment along with immunizations. Lane County respondents were the most hesitant to prioritize this requirement with just 9% of respondents scoring dental examination requirement for school entry as a four or five. Thirty-two percent (32%) of Douglas County and fifty percent (50%) of Linn-Benton County school representatives scored requiring dental examinations at school entry a moderately high or highest priority.

Goal #2 Conduct a Scan of the Resources Available in the Southern Willamette Valley

The following results section highlights the resources available in the four counties. First, grant funding and grant awards are summarized. Second, a synopsis of the interviews conducted with agencies are included. And finally, the results of the agency survey are reported.

Grant Funding

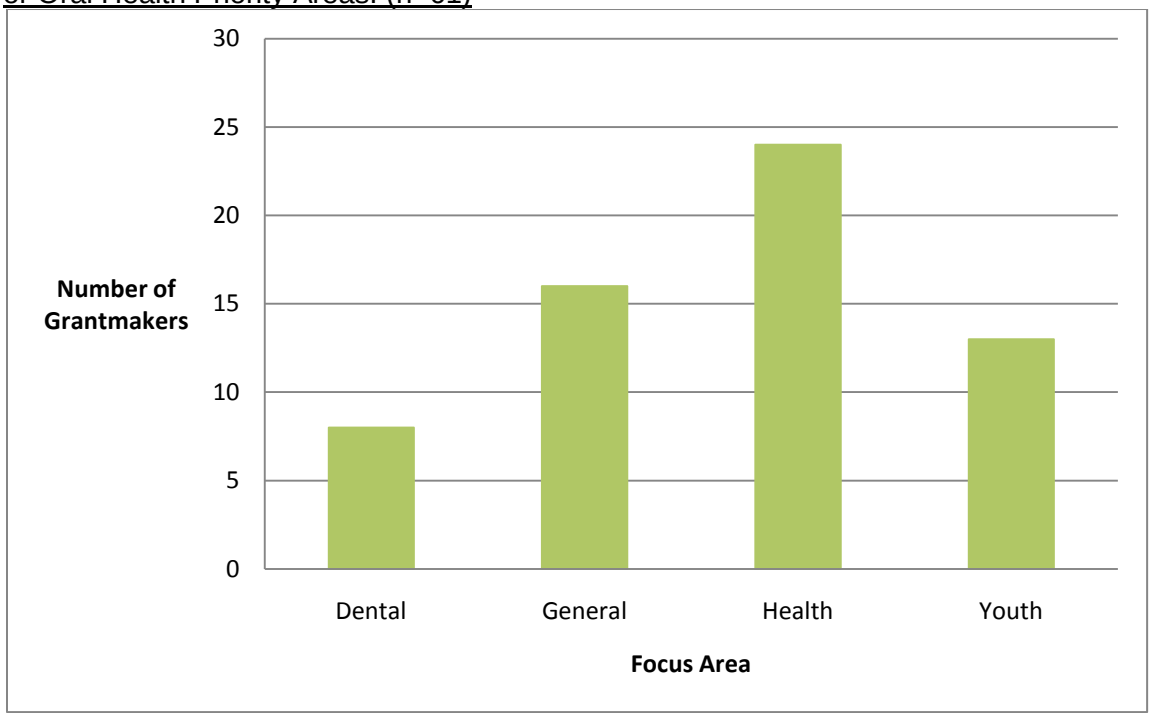
The Grant Funding Sources category addresses the overall opportunities and sources of funding for organizations in Oregon to support dental projects. All funding sources in this category require interested organizations to submit applications for requests to be considered. Sources of funding within this category vary in scope, grant focus, and type or funding organization, but have all been found to have provided or offer to provide funds related to dental health, health in general, or children's health in Oregon. The general focus of the grantmaking organization as well as its geographic area of focus are included in the report. Information on range of funding, deadlines, and timelines for submission were collected when available. Many grant programs do not make their range of funding available. Applications may be rolling, with requests reviewed periodically throughout the year

There are many local foundations in Oregon that make charitable giving or grant funding an integral piece of their organization. Though most of these organizations do not direct funds for dental specifically, their missions appear open to dental-related projects and programs. For example, local banks and health plans in the four counties have foundations that support community programs to address the health of Oregonians and their children through philanthropy or grant funding. Funding ranges from small donations of under $1000 to large grants of over $50,000.

The organizations located in Oregon seeking grant applications for dental projects specifically, include: The American Dental Association, the Collins Foundation, the Dental Foundation of Oregon, the Ford Family Foundation, ODS Companies, the Patterson Foundation, Ronald McDonald House Charities, and Tom's of Maine. The Ford Family Foundation gives primarily in rural Oregon. The remaining grantmakers list supports projects oriented towards general health, medical research and health policy, community projects, children/youth health and welfare, or provide charitable giving to specified communities.

Figure 10 displays the number of grantmakers who fund projects in Oregon with either a health, dental and/or child-related focus according to their specific grant focus area.

Figure 10. Funding Focus Areas of Grantmakers in Oregon that have Identified Physical Health or Oral Health Priority Areas. (n=61)

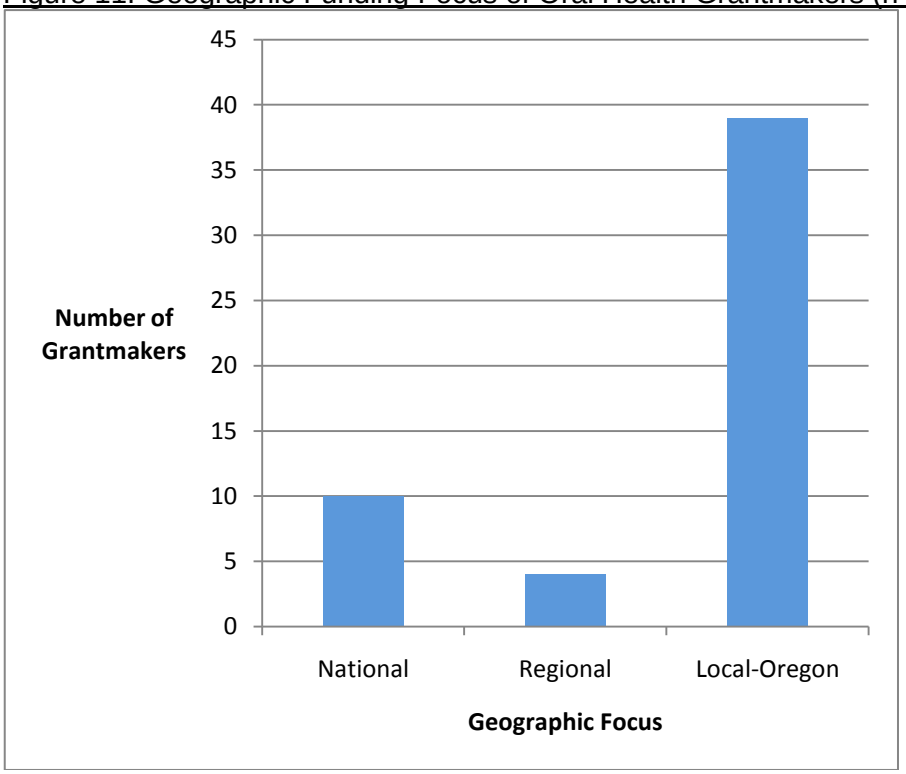


Source:
http://www.gosw.org/grant/members_of_grantmakers/, the Grantsmanship Center,
http://www.tgci.com/funding/top.asp?statename=Oregon&statecode=OR,
and *The Oregon Foundation Databook- 9th Edition*

After the eight who provide funds for dental specifically, sixteen (16) were identified with a "general" focus area, eighteen (18) with a health focus, and thirteen (13) with a youth focus. If a grantmaker focused on health and also youth, for example, they would be represented within both categories.

Figure 11 identifies the grantmaker geographic focus area as the primary focus of funding. For example, of the grantmakers focusing on dental care, the Collins Foundation, Dental Foundation of Oregon, and ODS Companies limit their grants to Oregon.

Figure 11. Geographic Funding Focus of Oral Health Grantmakers (n=53)

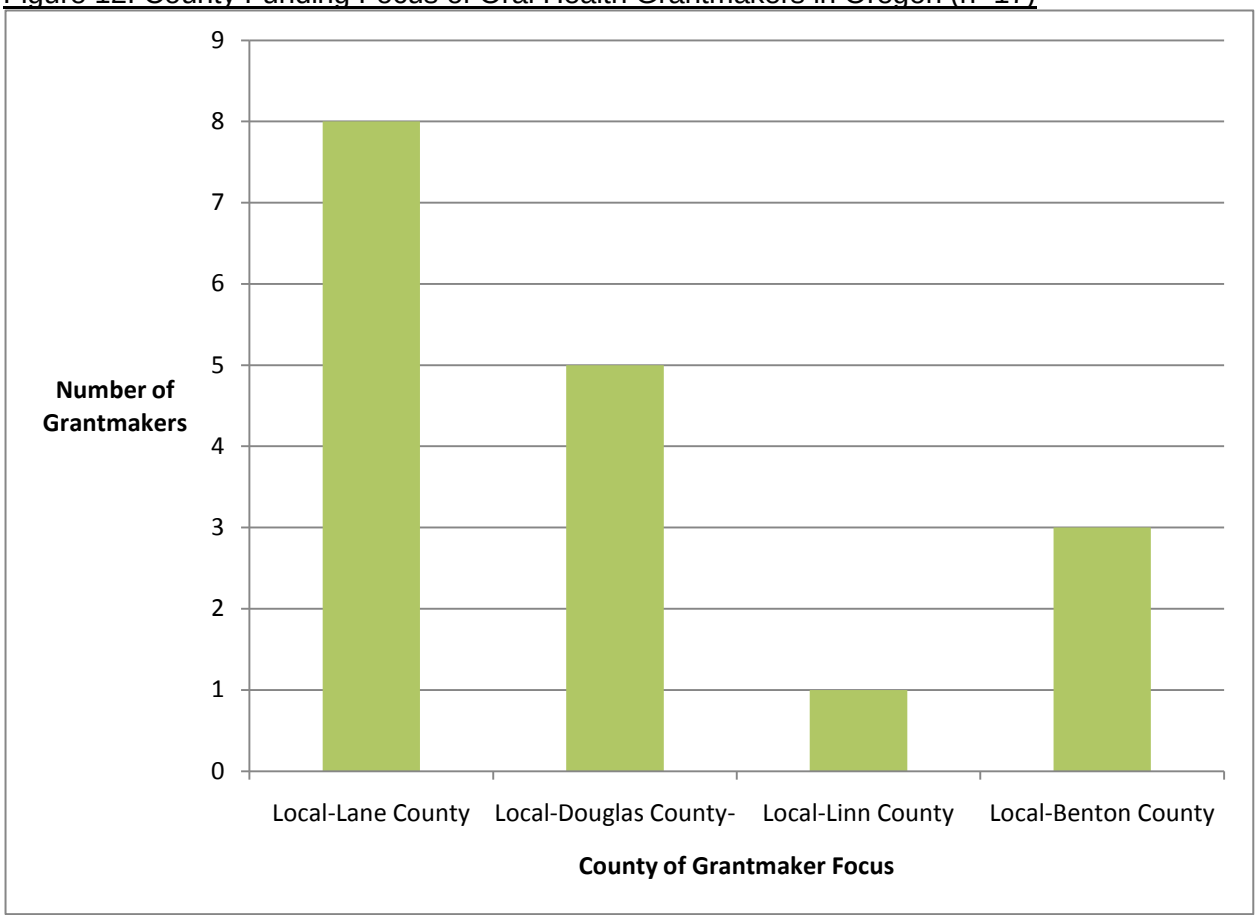


Source:
http://www.gosw.org/grant/members_of_grantmakers/, the Grantsmanship Center,
http://www.tgci.com/funding/top.asp?statename=Oregon&statecode=OR,
and *The Oregon Foundation Databook- 9th Edition*

In our sample, there were ten grantmakers with a national focus, three with a regional focus, and forty that served Oregon. While there are a multitude of national grantmakers with a general health focus, we limited our search to those national grantmakers who have given funds specifically for dental projects in Oregon. Predominant national funding sources that grant funds for health projects include the Robert Wood Johnson Foundation, W.K. Kellogg Foundation, and the federal agencies.

Figure 12 displays the county-level geographic limitations. Grantmakers can fall within more than one category if they fund organizations and projects in multiple counties.

Figure 12. County Funding Focus of Oral Health Grantmakers in Oregon (n=17)



Source:
http://www.gosw.org/grant/members_of_grantmakers/, the Grantsmanship Center,
http://www.tgci.com/funding/top.asp?statename=Oregon&statecode=OR,
and *The Oregon Foundation Databook- 9th Edition*

The Baker Family Foundation, Chambers Family Foundation, Cow Creek Umpqua Indian Foundation, McKay Family Foundation, Siuslaw Bank, Western Lane Community Foundation, and Woodard Family Foundation primarily give to organizations within Lane County. Those organizations who limit their funds to Douglas County (5) are Cow Creek Umpqua Indian Foundation, C. Giles Hunt Charitable Trust, Mercy Foundation, the Whipple Fund (part of The Oregon Community Foundation), and the Woodard Family Foundation. The Benton County Foundation, Chambers Family Foundation, and Mario and Alma Pastega Family Foundation limit their grants to specific counties that include Benton County. The Cottage Grove Community Foundation limits their giving to the town of Cottage Grove. We did not include Oregon grantmakers who specifically focused on counties other than Benton, Douglas, Lane, and Linn Counties or only provided grants to organizations located in the Portland metropolitan area.

Despite the growing need of oral health resources, major grant contributions to the four county region of Benton, Douglas, Lane, and Linn counties to support children's dental health initiatives have been limited. Perhaps the most significant find was the lack of federal funds awarded to the region promoting children's dental. Grant awards databases for the National Institutes of

Health, the Center for Disease Control, and the Administration for Children and Families were extensively searched and revealed no such grant contributions in the last two years.

However, the following programs have been funded in the four counties by local United Way affiliates and Health Resources Services Administration (HRSA):

Linn County:

- United Way of Linn County provides grant funding to the Community Outreach, Inc. Dental Clinic

Benton County:

- United Way of Benton and Lincoln Counties provides financial support to the Community Outreach, Inc. Dental Clinic as well as the Boys and Girls Club of Corvallis Dental Clinic

Lane County:

- HRSA award to the White Bird Clinic, HIV Alliance and Lane Community College for the promotion of oral health

Douglas County:

- United Way of Douglas County provides grant funding to the Douglas County Dental Clinic

Several foundations and organizations have provided funds supporting dental health across the four counties to fund the Oregon Tooth Taxi. The Collins Foundation, Meyer Memorial Trust, and the Spirit Community Fund have all awarded funds to the Dental Foundation's Oregon's Tooth Taxi. This program utilizes a mobile clinic to serve the entire four county region, as well as the rest of the state.

Agencies: Key Informant Interviews

To understand additional activities that were taking place in the state and across the four counties, interviews and surveys were completed with state and regional leaders, and the staff at various agencies. The results revealed a range of activities occurring across Oregon that aim to improve the oral health of children.

- The American Academy of Pediatric Dentists has launched the Head Start Dental Home Initiative (DHI) which is working to provide dental screenings to children enrolled in Head Start program. Statewide and regional dental leaders were identified who are leading this effort for their respective geographic areas. The DHI expects to expand its reach across the state of Oregon related to the statewide Healthy Kids program as well as the Oregon Health Plan to help enroll children statewide.

- The Give Kids a Smile program is a national program whereby individual dentists donate care for uninsured and low-income children. Typically these are one-day events during April and May. The dentists use their own office or clinics to provide free care. As of April 22, 2010 Give Kids a Smile reported national participation of just under 13,000 dentists. Individual dentists across Oregon participate in Give Kids a Smile, but no statewide coordination was identified.

- The Oregon State Office of Dental Health identified that the agency is working to address some of the workforce training issues related to dental care and dental access. The Office of Dental Health has a US Department of Health and Human Services Health Resources Services Administration (HRSA) grant to train dentists, pediatricians, and family practitioners to perform dental screenings.

- The Oregon Oral Health Coalition (OROHC) is addressing oral health at the county level and hosted a community planning process for the Linn-Benton two-county region. During this process, the OROHC facilitated 6-8 community meetings that brought the various stakeholders together to identify the top needs of the community and prioritize an action plan and strategies to improve access to preventive services for underserved children and emergency service for uninsured adults.

- The Oregon Educators Benefit Board (OEBB) negotiated a program with The ODS Companies' (ODS) - an Oregon-based provider of dental, medical, and professional liability insurance product - for their dental provider panel to accept a reduced fee for services provided to OEBB-insured patients. The difference from the amount dentist now receive as payment and what ODS was reimbursing for now is deposited into the *OEBB Fund*. This fund is available for uninsured children (between ages 6-12) to receive up to $500 of dental services. Referrals are made through public health offices or the schools and there is a one-page application to show eligibility.

In addition to the agencies operating across the entire state of Oregon, interviews with state and regional leaders identified many agencies at the community level that are working to improve oral health within individual Oregon counties.

Lane County

Lane County has multiple agencies that work together to assist children who need dental care. Conversations with a range of local and state leaders consistently point to a very active collaboration across the Community Health Centers of Lane County and Head Start of Lane County to provide dental prevention services to 27 Head Start sites across the county. These programs also serve children in Title 1 schools, day care centers, clients of the Women, Infants, and Children (WIC) program, Early Childhood (EC) CARES, and the Relief Nursery. Participating children may receive cleanings, fluoride varnishing, and dental sealants at over 100 sites county-wide.

Furthermore, Lane County is also home to several clinics that provide free or low cost care to the most underserved populations. The Assistance League of Eugene Children's Dental Clinic utilizes a volunteer model to serve children in the 4J and Springfield school districts. The White Bird Community Dental Clinic in Eugene provides a full range of dental services as well as emergency walk-in services. Finally, Project Homeless Connect, an annual one-day service event in Eugene to serve homeless individuals and families includes a significant dental care station that provide free care by volunteering dental practitioners to the county's homeless population.

Linn & Benton Counties

The Benton County Health Department has collaborated with the Corvallis Boys and Girls club and established clinics which provide direct dental services to low-income, uninsured, and homeless populations across the counties. These underserved populations are additionally supported in Linn and Benton Counties through the work of Capital Dental. Capital hired a Licensed Access Permit (LAP) hygienist who is currently partnering with Head Start with the aim to see all Head Start children two times each year. The program includes parent training, education about oral disease, and training for the Head Start family advocates. To increase community awareness and support, Capital Dental hosted an open house to bring together the local dental providers. While other counties may be utilizing Head Start to reach vulnerable populations, the LAP hygienist in this program has the additional advantage of Capital Dental provider network to support her activities.

Douglas County

Oral health in Douglas County is supported on a systemic level first through the Area Health Education Center (AHEC) in Roseburg. The AHEC center is part of a national program that focuses on a variety of health-related issues. There are five AHECs in Oregon.

Capital Dental, Willamette Dental, and Medical Teams International (MTI) are responsible for a majority of the direct provision of dental health services to underserved populations on an agency level. Capital Dental and Willamette Dental are interested in using the vans to provide improved access to locations across Douglas County and southern Lane County, as well as to schedule appointments for children utilizing the Oregon Health Plan benefits of the Dental Care Organization providers.

Agencies: Survey Responses

In addition to the telephone interviews, surveys were conducted with 35 agencies across the four counties. In total, 13 agencies from Benton County, 11 agencies from Linn County, 12 agencies from Lane County, and 5 agencies from Douglas County were contacted to complete a survey, yielding a response rate of 92%, 73%, 100%, and 60%, respectively from the four counties. The overall sample size of 35 is representative and provides valuable information. However, where the results are stratified by county, the results must be interpreted with caution as the sample size is very small for individual counties is some cases. For example, in Table 14, there were three respondents in Douglas County to the agency survey. While this number may be representative of the agencies (60% response rate) and the current activities, one respondent accounts for 33% of the population, which may be misleading when compared to other county proportions if not interpreted in context.

Table 14. Type of Agencies that Completed the Resources Survey by County (N=35)

Type of Agency	Benton (n=12)	Linn (n=8)	Lane (n=12)	Douglas (n=3)
Nonprofit (service delivery)	5	3	9	1
Nonprofit (other)	2	2	1	1
Government Branch	4	3	0	1
Faith-based	0	0	0	0
Childcare provider	0	0	0	0
Business	1	0	2	0

Source: Agency Survey, Question 1.1

When asked, “How does your agency/business support oral health,” there were varying answers across the four-county region. The type of support most frequently cited was in the provision of specific services including: Coordination between OHP eligible individuals and local OHP providers; coordination of dentists and volunteers willing to provide dental screenings and support; referrals of individuals in need of dental healthcare to willing dental health practitioners; volunteer support for a myriad of activities; support of programs such as, the Dental Van, the Tooth Taxi, and annual dental days; funding of dental health programs; planning and coordinating potential dental health programs; and advocating on behalf of Oregonians with inadequate access to dental care.

Next, respondents were asked about the types of resources they provide or commit to the communities where they operate.

Table 15. Number of Agencies that Provide Supplies or Equipment, Funding, Volunteers, or Program Support to Local Dental Programs by County. (N=26).

Type of Support	Benton (n=9)	Linn (n=9)	Lane (n=6)	Douglas (n=2)
Equipment/Supplies	4	1	3	0
Funding	4	1	4	1
Volunteers	4	5	7	1
Program Support	8	5	5	2

Source: Agency Survey, Question 2.2 – 2.11

Agencies differ in the types of dental health support each provides. Some agencies provide one type of support. However, as the above table indicates, some agencies provide more that one type of support. Supplies and volunteers are provided more than any other type of support and program support receives the least attention from county agencies. Program support reported by agencies includes: interpretation, in-kind staff, marketing, transportation, storage, and grant writing Supplies provided by agencies are primarily toothbrushes, toothpaste, and floss. Some agencies also provide facilities, tables, and support for dental screenings.

Agencies reported providing volunteer support both directly and indirectly. Of those agencies that described the quantity of volunteers they provide, 58% reported providing 0-5 volunteers and 42% report providing more than 15 volunteers to support dental health. Of those agencies that described the frequency in which they provide volunteer support, 20% reported providing volunteer support 1-3 times per year; 67% reported providing volunteer support 3-5 times per year; 7% reported providing volunteer support every other month; 7% reported providing volunteer support every month; and 7% reported providing volunteer support every day. Those agencies that reported providing volunteer support indirectly do so through coordination with other agencies and local dentists.

Table 16 Types of Educational Materials Distributed to Children by County as Reported by Various Agencies (N=35)

Educational Materials	Benton (n=12) (%)	Linn (n=7) (%)	Lane (n=13) (%)	Douglas (n=3) (%)
List of referral sources	92%	57%	46%	100%
Teeth brushing and flossing	92%	57%	46%	33%
Annual dental screenings for children	67%	43%	46%	33%
List of dentists in the community	67%	29%	15%	33%
Nutritional education	58%	29%	31%	33%
Fluoride mouth rinse or fluoride tablets	50%	29%	31%	0%
Fluoride varnish	42%	0%	23%	0%
Dental sealants	25%	0%	31%	0%
Anti-bacterial wipes and fluoride varnish	0%	0%	0%	0%

Source: Agency Survey, Question 3.1

The two most frequently distributed types of educational material by agencies across the four counties are lists of referral sources and information on teeth brushing and flossing. The least frequently distributed educational material is information on dental sealants with only Benton (25%) and Lane County (31%) agencies distributing this type of material. Linn and Douglas County agencies surveyed do not distribute educational materials related to fluoride varnish, or dental sealants. Additionally, Douglas County agencies did not distribute educational materials on fluoride mouth rinse or fluoride tablets. No county agency distributed material on anti-bacterial wipes.

Table 17. Most Frequent Barriers to Accessing Needed Dental Care for Children in the Four Counties as Reported by Agencies (n=34)

Barrier	1 Least Common Barrier (%)	2 (%)	3 (%)	4 (%)	5 Most Common Barrier (%)
Lack of money	9%	3%	6%	15%	65%
Inadequate insurance	3%	3%	15%	15%	59%
Parents are unaware of when their child/children should see a dentist	4%	13%	36%	22%	26%
Few dentists accept OHP	18%	0%	30%	30%	23%
Dental care is a low priority	3%	0%	47%	31%	21%
Time spent on wait list	20%	17%	10%	33%	17%
Access to dentists that can work with children under five	17%	13%	20%	30%	17%
Transportation	17%	11%	29%	29%	17%
Don't know where or how to obtain dental care	13%	3%	41%	25%	13%
Lack of money	9%	3%	6%	15%	65%
Inadequate insurance	3%	3%	15%	15%	59%

Source: Agency Survey, Question 3.2

Agency representatives were asked to rank the most frequent barriers to accessing needed dental care for children on a scale of 1 to 5, with 5 being the most common barrier. The most commonly reported barriers (scoring 5) to accessing needed dental care for children were lack of money (65%) and inadequate insurance (59%). When scale categories of 4 and 5 were collapsed, the most common barriers reported are lack of money (80%),inadequate insurance (74%), Shortage of dentists (27%) was the reported as the least common barrier in the four counties.

County-level results include access to dentists that can work with children under five (29%) and the time it takes to get an appointment (29%) reported as the least common barriers in Douglas County. Compared with Benton County, 29% of Linn County agencies reported a shortage of dentists as the most common barrier, while 14% reported a shortage of dentists as the least common barrier.

Next, respondents were asked about maternal oral health. Table 19 displays the results for the types of educational materials that are distributed; Table 20 addressed the barriers, and Table 21 highlights the activities being done by the agencies to help families overcome the barriers to accessing oral health care.

Table 18. Types of Educational Materials Distributed to Pregnant or Parenting Mothers as Reported by Various Agencies (N=35)

Educational Materials	All Counties (%)
Nutritional education (%)	47%
List of referral sources	46%
Teeth brushing and flossing	44%
Preventing tooth decay in infants (%)	39%
Maternal oral health (%)	37%
List of dentists in the community (%)	34%
Fluoride mouth rinse or fluoride tablets (%)	21%
Annual dental screenings for children (%)	33%
Dental sealants (%)	18%
Anti-bacterial wipes and fluoride varnish (%)	6%

Source: Agency Survey, Question 4.1

In all four counties, approximately 44% to 47% of agencies reported distributing educational materials to pregnant or parenting mothers regarding nutritional education, list of referral sources, and dental health related to teeth brushing and flossing. In Linn County, 50% or more of agencies reported distributing educational materials on teeth brushing and flossing, nutritional education, and annual dental screenings for children. Between 6% and 21% of all County agencies surveyed reported providing information on preventive care measures including fluoride mouth rinse or fluoride tablets, dental sealants, and anti-bacterial iodine wipes, and two agencies reported providing educational material on anti-bacterial iodine wipes.

Table 19. Most Frequent Barriers to Accessing Needed Dental Care for Pregnant or Parenting Mothers in All Four Counties as Reported by Agencies (n=22)

Barrier	1 Least Common Barrier (%)	2 (%)	3 (%)	4 (%)	5 Most Common Barrier (%)
Lack of money	5%	0%	9%	18%	73%
Inadequate insurance	0%	5%	14%	18%	64%
Dental care is a low priority	0%	0%	41%	23%	27%
Few dentists accept OHP	5%	9%	23%	36%	23%
Don't know where or how to obtain dental care	9%	14%	27%	36%	18%
Dentists are unwilling to see women that are pregnant	41%	18%	9%	14%	18%
Time spent on wait list	14%	14%	32%	27%	14%
Shortage of dentists	32%	18%	23%	9%	14%
Transportation	18%	9%	23%	59%	0%
Time it takes to get an appointment	23%	9%	41%	27%	0%

Source: Agency Survey, Question 4.2

For all counties, the most common barriers reported to accessing needed dental care for pregnant or parenting mothers were lack of money (73%) and inadequate insurance (64%). When scale categories 4 and 5 are collapsed, 50% or more agencies reported few dentists accept OHP (59%), don't know where or how to obtain dental care (54%), and dental care is a low priority (50%) as most common barriers. The least common barrier reported was dentists unwilling to see women that are pregnant, with 41% of county agencies reporting this as the least (score of 1) common barrier.

Table 20. Activities Being Completed by Agencies to Help Children and Pregnant Mothers Access Dental Care by County (N=34).

Activity	All Counties (%)
Educating parents on when their child/children should see a dentist (%)	70%
Providing education on dental providers in the area (%)	67%
Providing education to OHP families on dental benefits	58%
Coordinating dental referrals and dental appointments	52%
Coordinating dental clinics	50%
Providing financial assistance (%)	48%
Providing transportation (%)	26%

Source: Agency Survey, Question 3.3 and 4.3

In the four counties, the most prevalent activities currently being completed by agencies to help children and pregnant mothers access dental care are educating parents on when their child/children should see a dentists, providing education on dental providers, and providing education to OHP families on their dental benefits. In Benton County, coordinating dental referrals and dental appointments (82%) and providing education on dental providers in the area (82%) was the most frequent activity being completed. The most prevalent activities reported by Linn and Lane County agencies were coordinating dental referrals and coordinating dental clinics (Douglas County agencies reported all activities equally. The least prevalent activity across the four counties was providing transportation (26%)

Agency representatives were asked to rank the above list of priorities on a scale of 1-5, with one representing the lowest priority and 5 representing the highest priority.

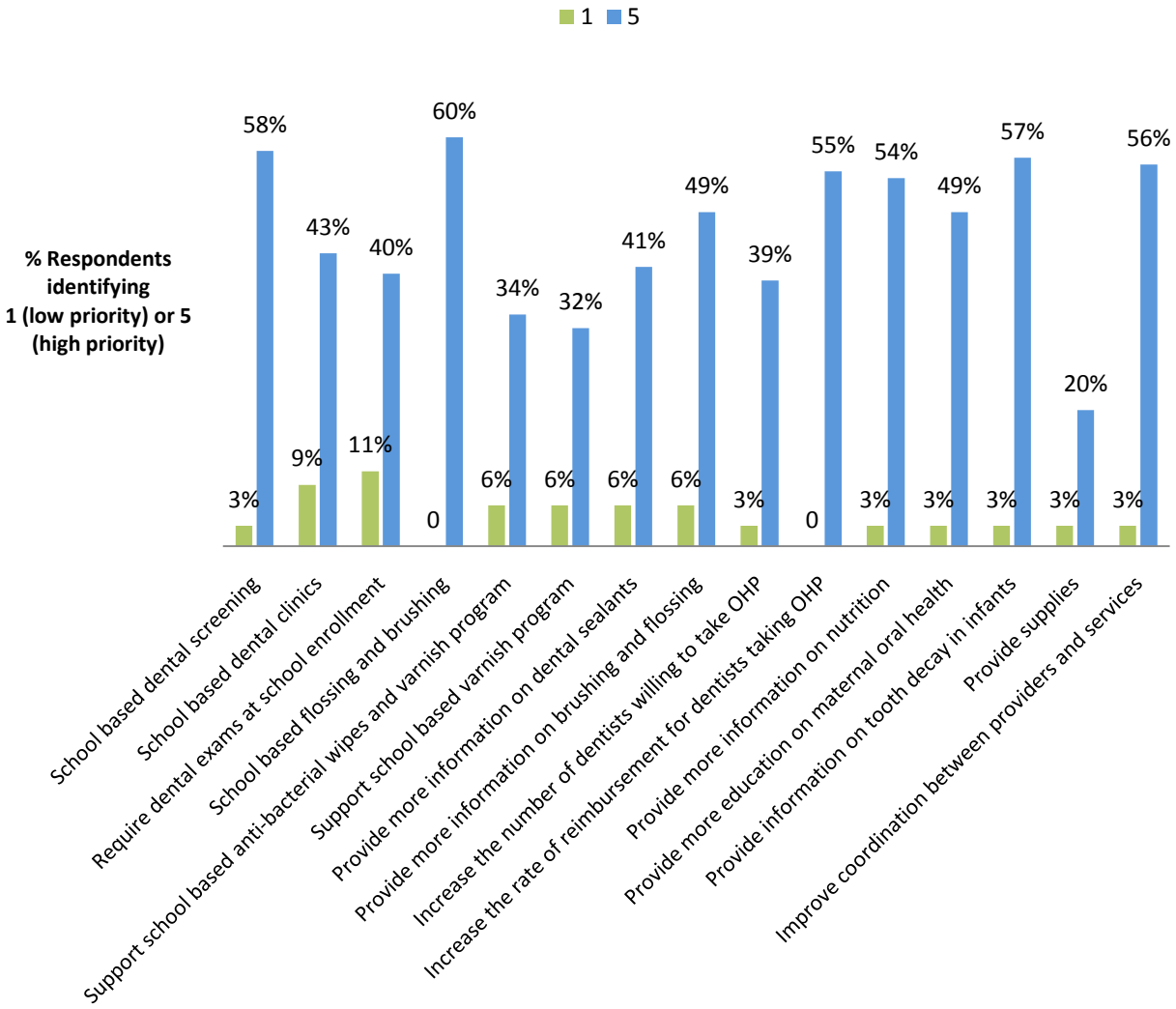
Table 21. Local Priorities for Improving Oral Health in the Four Counties as Reported by Agencies(N=42)

Priority	1 Lowest Priority (%)	2 (%)	3 (%)	4 (%)	5 Highest priority (%)
School based dental screening	3%	0	19%	19%	58%
School based dental clinics	9%	6%	20%	23%	43%
Require dental exams at school entry	11%	6%	34%	9%	40%
School based flossing and brushing	0%	3%	17%	20%	60%
Support school based anti-bacterial wipes and varnish program	6%	9%	31%	19%	34%
Support school based varnish program	6%	6%	35%	21%	32%
Provide more information on dental sealants	6%	6%	12%	35%	41%
Provide more information on brushing and flossing	6%	3%	11%	31%	49%
Increase the number of dentists willing to take OHP	3%	9%	18%	30%	39%
Increase the rate of reimbursement for dentists taking OHP	0%	3%	23%	19%	55%
Provide more information on nutrition	3%	6%	14%	23%	54%
Provide more education on maternal oral health	3%	3%	6%	39%	49%
Provide information on tooth decay in infants	3%	0%	14%	26%	57%
Provide supplies	3%	9%	17%	51%	20%
Improve coordination between providers and services	3%	3%	18%	21%	56%

Source: Agency Survey, Question 5.1

The following figure provides a comparison of reported scores of 1 and 5 for each category in order to understand the most commonly ranked highest and the most commonly ranked lowest priorities.

Figure 13. Local Priorities for Improving Oral Health in the Four Counties as Reported by Agencies (N=42)



Source: Agency Survey, Question 5.1

Over 50% of respondents ranked the following priorities as highest priorities (score of 5): school based dental screening (58%), school based flossing and brushing (60%), increasing the rate of reimbursement for dentists taking OHP (55%), providing more information on nutrition (54%), providing information on tooth decay in infants (57%), and improving coordination between providers and services (56%). The most frequently rated low priority was requiring dental examinations at school enrollment.

Goal #3: Conduct an assessment of the provider community in the Southern Willamette Valley

The next results section compiles information from the provider community which includes pediatricians, obstetricians, the future dental workforce, and dentists. Additionally, simple counts of the number of hygienists and Licensed Access Permit (LAP) hygienists are included to aid in developing a comprehensive resource list for The Oregon Community Foundation. Pediatricians and Obstetricians will be reported on first, followed by dental programs, LAP's and hygienists, and dentists. Due to the low response rate, data is collapsed across the counties and key differences are highlighted in the narrative when applicable. Efforts are underway to collect additional responses from the provider community in May. Should efforts result in a substantial increase in the response rate, an amended report will be forwarded to OCF.

Pediatricians and Obstetricians

Table 22. Number of Obstetricians and Pediatricians by County as Reported by PacificSource Health Plans, Eugene.

County	Obstetricians	Pediatricians
Benton	17	21
Linn	15	14
Lane	69	51
Douglas	12	4

Source: PacificSource Health Plans

There are a total of 113 obstetricians and 90 pediatricians across Benton, Linn, Lane, and Douglas counties.

Table 23. Types of Payment Accepted from Patients by Obstetricians and Pediatricians by County (N=14)

County	All Counties (%)
Commercial (%)	100%
OHP/Medicaid (%)	100%
Medicare (%)	93%
Self-pay (%)	100%
Other (%)	7%

Source: Provider (Peds and Obs) Survey, Question 2.1

Commercial, OHP/Medicaid, and self-pay methods of payment were accepted from 100% of respondents across Benton (n=6), Linn (n=1), Lane (n=5), and Douglas (n=2) counties. Medicare was accepted from 100% of respondents from Benton, Linn, and Lane counties and 50% of respondents from Douglas County accepted Medicare payments. There were 7% of respondents who accepted "other" payment types, which one practice in Benton county qualified as the Family Planning Expansion Product (FPEP). No other county reported accepting any other type of payment.

When asked whether offices donated care in their office or at an off-site location, 20% of the Benton respondents and 60% of the Lane County respondents donate either in their office or off-site. In Benton County, 75% of the respondents perform a visual mouth inspection of pediatric patients, the one respondent from Linn County, 60% of the respondents from Lane County and one of the two respondents from Douglas County perform a visual mouth inspection of pediatric patients.

In Benton County, 50% of respondents perform oral health screenings on children age 1-3 years, while 75% of Benton county respondents perform oral health screenings on patients 4 years and older. The respondent from Linn County and 60% of Lane County respondents perform screenings on patients age one year and older. In Douglas County, one of the two respondents reported that they perform oral health screenings on patients age one year and older.

When asked about performing fluoride varnish in their offices, 25% of respondents from Benton County and 40% of respondents from Lane County provide fluoride varnish with their clients who are children. The respondents from Douglas or Linn counties did not answer the question regarding providing fluoride varnish to their children clients.

When asked the question, what questions do you ask the children that you see in your office?, the most common responses were:

- *Do you brush and/or floss? How often?*
- *When was the last time you saw a dentist?*
- *Do you take fluoride or live in a fluoridated water district?*
- *How much juice/soda do you consume?*
- For infants, *have parents started brushing the infant's teeth?*

Next, pediatricians and obstetricians were asked about the priorities for children seen in their offices.

Table 24. Local Pediatrician and Obstetrician Priorities for Improving Oral Health in the Four Counties (N=15)

Priority	1 Lowest Priority (%)	2 (%)	3 (%)	4 (%)	5 Highest priority (%)
Increase the number of dentists willing to take OHP	0%	0%	0%	11%	89%
Increase the rate of reimbursement for dentists taking OHP	0%	11%	0%	11%	78%
Provide information on tooth decay in infants	0%	0%	0%	44%	56%
Improve coordination between providers and services	11%	0%	11%	22%	56%
Provide supplies	0%	13%	13%	25%	50%
School based dental clinics	0%	0%	22%	33%	44%
Provide more information on brushing and flossing	0%	0%	13%	50%	38%
School based dental screening	0%	0%	11%	56%	33%
School based flossing and brushing	0%	11%	11%	44%	33%
Provide more information on nutrition	11%	0%	22%	33%	33%
Support school based varnish program	13%	13%	0%	50%	25%
Provide more information on dental sealants	25%	13%	13%	25%	25%
Require dental exams at school entry	11%	0%	33%	33%	22%
Provide more education on maternal oral health	11%	0%	33%	33%	22%
Support school based anti-bacterial wipes and varnish program	25%	13%	13%	38%	13%

Source: Provider (Peds and Obs) Survey, Question 4.1

Respondents were asked to rank the above priorities for the children cared for in their offices using a 1-5 scale with1 representing the lowest priority and 5 representing the highest priority. All (100%) of the respondents considered both increasing the number of dentists willing to take OHP and providing information on tooth decay in infants a 4 or 5 level priority, while 89% of respondents considered both school based dental screening and increasing the rate of reimbursement for dentists taking OHP a 4 or 5 level priority, and 88% of respondents considered both providing more information on brushing and flossing and improving coordination between providers and services a 4 or 5 level priority.

LAP's and Hygienists

Next, the number of LAP's and Hygienists are reported as classified by PacificSource and the Oregon Board of Dentistry.

Table 25. Number of Licensed Access Permit Hygienists by County

County	Number of LAP's
Benton	2
Linn	1
Lane	13
Douglas	2

Source: Oregon Board of Dentistry

The number of LAP's in the four counties is included in Table 26. LAP's can provide valuable services for the oral health needs of children because they can provide preventative services in a variety of settings.

Table 26. Number of Hygienists by County

County	Number of Hygienists
Benton	65
Linn	60
Lane	296
Douglas	120

Source: Oregon Board of Dentistry

With approximately 541 certified hygienists in the four counties, their services could be utilized by any partnership that The Oregon Community Foundation creates.

Dentists

Tables 28 through 31 highlight the responses the Provider (Dentists) survey. In total, there were 43 respondents', details in Table 28.

Table 27. Number of Dentists that Responded to the Survey by County

County	Number of Dentists
Benton	9
Linn	5
Lane	22
Douglas	7

Source: Provider (Dentist) Survey, Question 1.1

Table 28. Types of Payment Accepted from Patients by Dentists for all Four Counties (N=41)

County	All Counties
Commercial (%)	90%
Self-pay (%)	98%
OHP/Medicaid (%)	37%
Other (%)	34%
Dental Discount Plans	22%
Medicare (%)	17%

Source: Provider (Dentist) Survey, Question 2.1

The most commonly accepted payments across counties were commercial (90%) and self pay (98%). Other types of payment accepted included credit card and check payments, augmented Medicare, grant payments, and various payment plans and financing programs. Next, dentists were asked about their average wait time for OHP dental clients. Table 33 details the results. However, only 11 respondents chose to answer this particular question.

Table 29. Average Wait Time for OHP Dental Clients as Reported by the Dentists for all Four Counties (N=11)

County	All Counties (%)
Fewer than two weeks (%)	18%
Two weeks to four weeks (%)	55%
More than four weeks (%)	27%

Source: Provider (Dentist) Survey, Question 2.2

The average wait time for OHP clients in the four counties was reported as 2-4 weeks by 55% of respondents.

Dentists were next asked if they donate care in their office or at an off-site location. Survey results indicate that 32 (86%) of the responding dentists donate care in their office, while 25 (68%) of the respondents donate care at an off-site location.
Survey results indicate more Benton County dental providers (88%) donate care at an off-site location than do providers in Linn, Lane, and Douglas Counties. 80% of Linn County respondents also donate care at an off-site location and 71.4% of Douglas County providers report the same. Lane County houses the fewest dental providers who provide care at an off-site location, with 50% of respondents reporting providing such as service.

And finally, dentists in the various counties were asked to rank a list of oral health priorities for the children they see in their office (Table 31).

Table 30. Local Priorities for Children in the Four Counties as Reported by Dentists in the Four Counties (n=37)

Priority	1 Lowest Priority (%)	2 (%)	3 (%)	4 (%)	5 Highest priority (%)
Provide information on tooth decay in infants	0%	0%	12%	14%	73%
Provide more information on nutrition	0%	0%	11%	19%	69%
Increase the rate of reimbursement for dentists taking OHP	3%	0%	14%	14%	69%
School based dental screening	0%	3%	14%	17%	67%
Provide more information on brushing and flossing	0%	0%	8%	27%	65%
School based flossing and brushing	0%	0%	14%	22%	65%
Provide more education on maternal oral health	0%	0%	17%	20%	63%
Support school based fluoride varnish program	5%	3%	14%	28%	53%
Provide more information on dental sealants	8%	0%	19%	22%	51%
Improve coordination between providers and services	2%	5%	16%	25%	50%
School based dental clinics	5%	3%	19%	30%	43%
Require dental exams at school entry	3%	9%	29%	16%	43%
Provide supplies	3%	6%	25%	25%	42%
Support school based anti-bacterial wipes and varnish program	16%	6%	19%	25%	34%
Increase the number of dentists willing to take OHP	15%	6%	29%	24%	26%

Source: Provider (Dentist) Survey, Question 3.1

Respondents were asked to rank the above priorities for the children cared for in their offices using a 1-5 scale with 1 representing the lowest priority and 5 representing the highest priority. Approximately 65% to 73% of respondents ranked the following as highest (score of 5) priorities:

- providing information on tooth decay in infants
- providing more information on nutrition
- increasing the rate of reimbursement for dentists taking OHP
- school based dental screening
- providing more information on brushing and flossing
- school based brushing and flossing programs

The most commonly reported lowest priorities (score of 1) were supporting school based anti-bacterial iodine wipe and increasing the number of dentists willing to take OHP.

Dental Programs

Lane Community College is the main campus for the Linn-Benton Community College and Umpqua Community college dental hygiene programs, which are distance education campuses

with smaller dental clinics. Though not within the four-county region, the LCC Dental Hygiene program also includes a distance learning campus in Idaho. LCC and LBCC have dental assisting programs along with the Practical Dental Assisting of Oregon in Corvallis. Dental hygiene programs are two years of study, including course work, clinical instruction, and clinical practice. Dental assisting programs require no coursework and three quarters of clinical instruction that can be done over one or two years.

A dental hygienist is a licensed oral health professional and can provide preventive, therapeutic, restorative, and educational dental interventions. Dental Assistants can serve as clinical chair side assistants, secretary-bookkeeper, office manager, or laboratory technician.

Lane Community College Dental Hygiene Program

The Lane Community College Dental Hygiene program, which includes the Linn-Benton Community College, Umpqua Community College, and Lewis-Clark Community College in Idaho sites, accepts a total of 31 first year students per year. The Northwest Partnership for Dental Hygiene Solutions (NPDHS) is a project that provided funds for Lane Community College to partner with Umpqua Community College, Linn-Benton Community College and Lewis-Clark Community College in Idaho to expand training for dental hygienists. The project is funded by the U.S. Department of Labor's Employment and Training Administration.[10] Beginning in the Fall of 2008, Lane Community College partnered with Umpqua Community College and the Umpqua Community Health Center to provide a 5-student clinical instruction site. LCC also partnered with Linn-Benton Community College beginning in 2007 to provide a 5-student distance education clinical site on the LBCC campus. Each clinic has 6 chairs. The program is fully accredited by the Commission on Dental Accreditation of the American Dental Association.

According to the director Sharon Hagan, the LCC program has twelve faculty for the four sites and only accepts students from Oregon. The LBCC site accepts five new students on odd years and the Umpqua site accepts five new students on even years. The program of study is two years, including course work, clinical education, and clinical work. The average costs for the LCC-affiliated dental hygiene programs are over $20,000 for two years. LCC graduates have seen a 95% passing rate on the National Dental Hygiene Board Examination, required to become licensed dental hygienists.

Students are required to practice in the Lane Community College Dental Clinic during their program of study. The clinic offers low-cost dental care for community members and school age children. LCC hygiene students complete pro bono work for children within their program of study. This includes seeing children (K-5) in the dental clinic who are transported from Eugene 4J schools to receive dental services. According to Sharon Hagan, groups of nine to twelve students come to the clinic by bus or small vans per session. This partnership with Eugene 4J School District allows the clinic to serve over 200 elementary students per year.[11] Students participate in pro bono activities, such as Give Kids a Smile Day where hygiene students see between 25-30 children (K-5) and other community days sponsored organizations in Lane County. For example, in 2010, the clinic worked with Head Start and a faith-based organization to provide services for children.[11] In the second year of study, students are also required to participate in one to two school age population activities as part of their Community Dental Health courses in the winter and spring terms.

The Dental Hygiene Clinic at LCC has 18 dental chairs for 20 students per year and serves over 2,000 people per year. Services offered include: blood pressure screening, oral screening by staff dentists, x-rays as needed, non-surgical periodontal therapy/teeth cleaning, fluoride treatment, nutritional counseling, oral hygiene instruction, sealants, and restorative work. Anyone in the community can apply for dental care. The first visit is free of charge and consists of a dental screening. The second appointment costs $40 for teeth cleaning with full mouth x-ray series and films costing an additional $25. About 10-15 percent of patients who come to the LCC dental clinic are not able to get dental care elsewhere because of limited resources. During Winter and Spring terms, students see approximately 200 children who travel in from the Eugene 4J school district on buses to get sealants, dental exams, x-rays, and teeth cleaning.[18] In April of 2009, clinic students also worked with Headstart families through a faith-based organization.

The Linn-Benton Community College site partners with Community Outreach, Inc. in Corvallis, where low-income patients can be referred. Hygiene students offer preventive care, emergent restorative care, and education for these clients. Students at the Umpqua site must complete clinical training at the Umpqua Community Health Center's dental clinic. The clinic provides dental screening and cleaning and costs $20 for children.

The Lane Community College Dental Assisting Program[10]

The Dental Assisting Program at Lane Community College is a three-quarter program of study. The LCC program accepts up to thirty students per year, with the number increased in 2008 because of the economic downturn, according to Program Coordinator Kris Tupper. There is no coursework required and the three quarter program can be completed over one or two years. The Dental Assisting Program has five faculty. The program is fully accredited by the Commission on Dental Accreditation of the American Dental Association.

The program costs approximately $7451 for tuition and related expenses, with an average additional cost of $2500 for required student uniform and student issue, lab fees, and National Exam fees.

Students in the LCC Dental Assisting Program also utilize the Dental Clinic for training and are required to spend two 24 hour rotations during the winter and spring quarter, one 24 hour rotation in the community in the spring, and volunteer work with children in the community for specified outreach. For example, in 2010, LCC DAP students spent a full Saturday providing dental sealants for low-income children and a children's outreach effort at a Title 1 school in Eugene providing home care instruction and talking to children about dental health, according to Program Coordinator Kris Tupper.

The Linn-Benton Community College Dental Assisting Program[12]

The Linn-Benton Community College Dental Assisting Program accepts twenty-six students per year out of an average of about 55-75 applicants. Program director Sheri Billeter says this trend has remained consistent over the past 3-5 years. Students receive a dental assisting certificate after one year of study. The program costs about $4665, which includes tuition, books, lab fees, uniforms and issue, state and national exam fees, student membership and class photo. The program is fully accredited by the Commission on Dental Accreditation of the American Dental Association.

Students gain clinical experience on campus by providing community members with x-rays, cleaning, fluoride treatments, pit and fissure sealants, and oral health instruction. The campus instructional facility includes a six-chair clinic. Each student is required to perform four hours per term in the clinic, Dental Link, which partners with Community Outreach, Inc. in Corvallis, according to program director Sheri Billetter. The summer after graduation, students are placed in general practice or specialty offices in Linn and Benton counties.

Practical Dental Assisting of Oregon, Corvallis[13]

The Practical Dental Assisting of Oregon program offers a dental assisting certificate after a thirteen-week program. Eight students are admitted per year and participate in coursework and clinical practice during the program of study. With two staff, the program trains up to 24 students per year in three thirteen-week sessions. The cost of the program is $4115 annually, including tuition and supplies.

As a whole, the community colleges within these four counties can take on average of 86 students per year and receive close to 300 applications.

Goal #4: Conduct an Assessment of OHP Enrollment Gaps and the Ability of OHP Agencies to Enroll More Children in the Southern Willamette Valley

To address goal four, surveys and interviews were conducted with Physical Health and Dental Health administrators, Oregon Health Plan (OHP) program managers and caseworkers to assess any enrollment gaps and the ability of agencies to enroll more children**.** The following results section includes narratives of the surveys and interviews with the administrators, a narrative summary of the program managers and caseworkers' responses, and a final estimate of the children that are potentially eligible for OHP but not currently enrolled.

Administrators

Of the physical health administrators that answered the survey (n=5, 62% response rate), 100% of them stated that the Oregon Health Plan in their region currently reimburses for fluoride varnish when it is administered by a Family Physician or Pediatrician. The same individuals that answered this question also stated that they would be willing to work with The Oregon Community Foundation to develop a targeted outreach program to encourage families and providers to utilize this particular medical benefit.

The dental care organizations that answered the survey reported that they distribute the informational materials to their members on the following topics:

- Annual dental screenings
- Teeth brushing and flossing
- Fluoride mouth rinse or fluoride tablets
- How to identify common dental problems
- Nutritional education
- Lists of dentists in the community
- Information on bottle feeding

As reported by the respondents, no physical health plan OHP administrators distribute dental-specific materials to members at the time of survey response.

The dental and physical health administrators reported that the priorities for the physical and dental health plans include:

Highest priority

- Increasing the number of dentists willing to take OHP
- Provide information on tooth decay in infants
- Increase the rate of reimbursement for dentists taking OHP
- Provide information on dental sealants
- Provide information on nutrition
- Provide supplies

Medium Priority

- Requiring dental examinations at school entry
- Providing more information to clients on dental sealants

Additionally, the Dental Care Organizations (DCOs) are learning how to collaborate more with each other to improve the use of resources, of which the Exceptional Needs Dental Services (ENDS) Program is an example. The DCO contracts with the Oregon Health Plan (OHP, i.e. Medicaid) require the DCOs to provide on-site care to institutionalized, disabled, and developmentally disabled patients. The DCOs send dentists to facilities (group homes, farm homes, and hospitals) to provide dental care. Through the collaboration of four dental care organizations-Willamette Dental, Capitol Dental, Multi-Care Dental, and Managed Dental Care of Oregon-a particular provider will go to a facility and see all patients, regardless of the DCO plan. The provider then tracks the patients treated, and then bills the appropriate collaborating organization for reimbursement, rather than each DCO having to send a provider to a particular facility to see patients only covered by a particular dental plan.

This collaboration continues to expand and improve the use of resources in the various communities.

Program Managers and Caseworkers

Program Managers and Caseworkers were asked about barriers to accessing OHP dental benefits, outreach activities done by offices to encourage families with children on OHP to use their dental benefit for preventive care and treatment, their perception of the current average waiting period for a child who is on OHP to see an oral health provider, types of activities that could help OHP enrollment sites participate to enroll OHP children, and local priorities for improving children's oral health. In total, there were 19 program managers and 13 caseworker name were provided to HPRN after speaking with the individual program managers. Of the program managers that were contacted, 9 completed a survey representing all four counties as did 2 caseworkers representing Linn-Benton and Douglas counties.

Program Managers and Case Workers were asked to name the most frequent barrier to accessing OHP dental benefits. The most frequent barriers reported included:

- The limited number of providers that accept OHP
- Difficulty finding a dentist who accepts OHP
- Time it takes to make an appointment
- Not enough reimbursement for dentists to cover OHP clients
- Dental health being a low priority for parents

Outreach activities done by DHS offices (in order of response frequency) included:

- Distributing materials at DHS enrollment sites
- DHS workers are trained to educate families on dental coverage policies
- Mailing materials to families
- DHS workers call the families to notify them of their dental coverage
- Talking to mothers through the WIC program

Perceptions of the average waiting period for a child on OHP to see an oral health provider ranged from 0 to more than 4 weeks. Respondents suggested several activities that could be done at OHP enrollment sites to help enroll children (in order of frequency): enrollment at WIC visits, advertising services through flyers and/or public service announcements, enrollment at school registration, and providing incentives to motivate parents to enroll their children.

Of the 11 respondents, eight felt comfortable answering questions about priorities for improving children's oral health. The program managers and case workers reported that the priorities for improving children's oral health include:

Highest priorities (scoring 4-5 on a scale of 1-5):

- Providing more information to families on dental sealants
- Increasing the number of dentists willing to take OHP children
- Increasing the rate of reimbursement for dentists that provide services to OHP children
- Supporting school based dental screening and referral programs
- Providing education on maternal oral health
- Providing information on preventing tooth decay in infants
- Provide supplies
- Improving coordination between providers and services

Lowest priority (score of 1):

- Requiring dental examinations and screening at school enrollment.

Eligible Children

Table 31. The Number of Children Eligible for OHP but Currently not Enrolled as Estimated by Health Policy Research Northwest.

County	# OHP Eligible but Not Enrolled Aged 0-12
Benton	469
Douglas	454
Lane	1522
Linn	629

Source: Population Research Center and Division of Medical Assistance Programs

In total, there are currently an estimated 3,074 children potentially eligible for the Oregon Health Plan but not currently enrolled in the South Willamette Valley.

Goal #5 Assess the Priorities in the Southern Willamette Valley

To assess the overall priorities for the four county region, all answers to the final question on each survey were compiled and are detailed in Table 32.

Table 32. Local Priorities for Improving Oral Health in the Four Counties (N=199)

Priority	1 Lowest Priority (%)	2 (%)	3 (%)	4 (%)	5 Highest priority (%)	Total (n)
School based dental screening	1%	1%	15%	22%	60%	147
Provide information on tooth decay in infants	3%	6%	14%	20%	56%	146
Provide more information on brushing and flossing	1%	3%	12%	28%	55%	146
Increase the rate of reimbursement for dentists taking OHP	3%	5%	20%	19%	53%	138
Provide more information on nutrition	1%	6%	14.5%	29%	50%	145
Increase the number of dentists willing to take OHP	4%	4%	18%	24%	49%	137
Improve coordination between providers and services	2%	4%	16%	32%	47%	141
School based flossing and brushing	3%	10%	20%	20%	47%	146
Provide more education on maternal oral health	4%	10%	21%	22%	43%	143
Provide more information on dental sealants	7%	6%	17%	29%	42%	144
Support school based varnish program	7%	7%	19%	26%	41%	85
School based dental clinics	8%	8%	22%	22%	40%	147
Provide supplies	1%	4%	24%	32%	38%	142
Require dental exams at school entry	13%	14%	30%	15%	29%	141
Support school based anti-bacterial wipes and varnish program	17%	13%	25%	20%	25%	136

Table 32 provides a comparison of priorities for all counties for all respondents. Across all counties, the most frequently highest ranked priority was school based dental screening, rated a score of 5 by 60% of respondents. Over half of county respondents also ranked providing more information on brushing and flossing (55%) and providing information on tooth decay in infants (56%) as the highest priority (score of 5). When scores of 4 and 5 are collapsed, approximately 80% of respondents prioritized school based dental screening (82%), providing more information on tooth brushing and flossing (83%), providing more information on nutrition (79%), providing supplies (79%), and improving coordination between providers and services (79%) as highest priorities. The most frequently reported low priorities (a score of 1) were supporting school based anti-bacterial wipes and varnish program (17%) and requiring dental examinations at school enrollment (13%).

RECOMMENDATIONS AND NEXT STEPS

The following recommendations are intended to guide the RAI Committee in making informed decisions about prioritizing next steps and investments that could have the greatest impact. The recommendations have been divided in to programmatic recommendations and county-specific recommendations.

Programmatic Recommendations

Increase coordination to improve continuity of care for oral health needs

In order to meet the growing oral health needs of children in the four counties, OCF should consider initiatives that address the continuity of care and work to improve the coordination among the different places where a child may have an opportunity to have dental needs addressed. Efforts that provide a greater continuity of care from the child and families perspective regardless of setting (dental office, school, or community clinic) and will help prevention efforts. For patients and their families, the challenges include knowing where and how to access care and programs. For clinicians and human service staff, the challenges include providing the continuity of care across settings (from early childhood programs, to schools, to physicians, to dentists) and staying current with the changing eligibility requirements and maze of currently available and future programs. These coordination obstacles are accentuated in the rural areas, and families have greater challenges to access needed care due to travel logistics and associated barriers . An example of an improved coordination system may initiate a partnership with an elementary school nurse, local dentist(s), and the local dental care organization (DCO) to ensure that all children at one particular school have the knowledge, access and coordination of services to optimally address their oral health needs.

As OCF considers additional investments into the Southern Willamette Valley, it is important to help expand existing efforts, to link disjointed programs, and to assist by helping to fill programmatic and service gaps, rather than start new discrete efforts that only add another siloed effort. OCF can play an important role in amplifying efforts underway and bring new resources to provide more seamless education and service delivery across the dental, education, and human service sectors that serve SWV children.

Create a centralized dental information and referral resource

As evidenced by the information in the background and results section, there are quite a number of initiatives currently taking place in different counties. However, it can be quite difficult for individuals or agencies to track all of the different programs and differing eligibility requirements. Therefore, we recommend that OCF consider initiatives that address the creation of a central system where agencies, individuals and community members can post information, learn about community activities, and/or possibly sign up to volunteer or receive care at a particular location or event.

OCF could also make significant contribution by helping to support efforts that aim to unify information into a central hub. It would be useful to increase the ability of staff across all sectors to have timely access to current and consistent information about existing programs, eligibility, and contact information so children and families can be efficiently triaged and referred to existing community-level programs.

Increase access and affordability of dental health services through Medicaid programs and services

Increasing access to preventative services in early childhood will help thwart a series of chronic oral health issues that are increasing in Oregon. A more creative and strategic partnership between pediatricians and the dentists may increase the frequency of visits and earlier contact.In addition, the MCO (managed care organizations) who serve the physical health needs of Medicaid recipients have an opportunity to partner with the dental benefit administrators to create a targeted outreach campaign that encourages (1) OHP beneficiaries to seek preventive dental care and (2) OHP providers to reduce real or perceived barriers for OHP beneficiaries to access care in their dental homes.

Increase the number of dental activities taking place in the schools

Dental screenings are currently taking place in between 64% - 75% of the schools on an annual basis. However, more than 50% of the schools reported NEVER administering anti-bacterial iodine wipes, providing mouth guard protection, administering fluoride varnish, providing information on dental sealants, providing teeth brushing and flossing opportunities, or providing a list of dentists in the community. The school districts would benefit from district-wide initiatives to address one or more activities to improve oral health in the schools. Many superintendents, school nurses, principals, and teachers agreed that children without mouth pain often learn more and learn better. Furthermore, 75% - 84% of the education staff that took the survey reported that dental screenings, nutritional education, information on dental sealants, providing treatment in the schools, and providing referral sources to families were among the top needs. OCF may benefit from prioritizing the needs of the education community and focusing efforts on establishing programs and relationship with the various school districts.

County-Specific Recommendations

<u>Linn-Benton County</u>

Invest in school based dental screenings, brushing and flossing programs.

From the education, agency and provider perspective, school based dental screenings, and brushing and flossing programs were among the highest priorities. A collaborative partnership between the schools, agencies and providers would not only increase early prevention efforts but would also increase the continuity of care and likelihood for long-term sustainability and improvements in oral health.

<u>Lane County</u>

Invest in programs that provide education on tooth decay, maternal oral health, and nutrition.

In Lane County, survey respondents prioritized the provision of education on tooth decay, maternal oral health and nutrition. Marketing the right materials to the right population has the potential to drastically increase the amount of information and education available to the most

vulnerable populations. The Oregon Community Foundation may benefit from partnering with local agencies and schools in Lane County to develop and market useful education tools.

Douglas County

Invest in efforts to increase the number of dentists trained to address children's oral health needs.

The survey respondents in Douglas County overwhelmingly supported prioritizing an increase in both pediatric dentists and the number of dentists willing to take Oregon Health Plan children. Douglas County is the only county in the Southern Willamette Valley without a dental hygiene program and the distance to the LCC clinic is prohibitive for families. Therefore, initiatives that increase the availability of dental care providers, or initiatives that address an increase in infrastructure for free or reduced-fee dental clinics, may be the priority in Douglas County. Given the current collaboration that is taking place among the Dental Care Organizations (DCO), The Oregon Community Foundation and other interested partners would benefit from expanding the efforts underway in Douglas County.

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