October 12, 2007

Karleen Jackson, PhD, Chair
Alaska Health Care Strategies Planning Council
P.O. Box 110601
Juneau, AK 99811-0601

Dear Commissioner Jackson:

The Alaska Dental Action Coalition (ADAC) - a statewide coalition of approximately 20 stakeholder organizations - met today and decided to provide a recommendation to the Alaska Health Care Strategies Planning Council. Attached you will find the preliminary working draft of a State Oral Health Plan that the ADAC will be completing by January 2008. Although our Oral Health Plan will not be completed during the working period for the Council, ADAC would like to bring access to dental care issues to the attention of the Council during your deliberations.

As you may know, the ADAC has been working with your department for the past four years on oral health issues and access to care is a primary concern. Some statistics of interest include: currently in Alaska only 1 in 3 Denali Kidcare beneficiaries receives any dental services in a year despite national recommendations that every child see a dentist every six months; for our Alaska Senior population Medicare does not cover most dental services; and in general the uninsured rate for dental care is double that of medical insurance. Lastly, the rate of dental caries in rural Alaska is 2.5 times the rate of the national average.

We urge that the Alaska Health Care Strategies Planning Council includes improving access to dental care in their recommendations to the Governor. ADAC looks forward to working with the Council on dental issues in the future.

Sincerely,

Delisa Culpepper, Co-Chair
Alaska Dental Action Coalition

Joel Neimeyer, Co-Chair
Alaska Dental Action Coalition

Attachment
In the Surgeon General’s report on “Oral Health in America” former Surgeon General David Satcher referred to a “silent epidemic” of oral disease restricting activities in school, work and home and often diminishing the quality of life. The report noted those who suffer the worst oral health are found among the poor of all ages, with poor children and poor older Americans particularly vulnerable. (USHHS, 2000) Water fluoridation and dental sealants were noted as two interventions that have reduced dental decay, however the report noted the ongoing need to reduce oral health disparities. In the United States, 25 percent of children and adolescents experience 80 percent of all dental decay occurring in permanent teeth. (Kaste, 1996). Five to 10 percent of preschool-age children have early childhood caries – this rate is higher among families with low incomes and some racial/ethnic minorities. (Casamassimo, 1996).

**Children**

Dental decay (caries) remains the most common chronic disease of childhood – 5 times more common than asthma and 7 times more common than hay fever (USHHS, 2000). It is estimated 52 million school hours are missed annually by children with oral health problems (Gift, 1992). Other consequences of extensive tooth decay include pain and related affects on learning, behavior management problems, affecting speech, and expensive dental care – early childhood caries may require hospital-based dental care under general anesthesia. Children with decayed or missing teeth may also suffer embarrassment and problems with self-esteem.

Nationally over 50 percent of 5- to 9- year old children have at least one cavity or filling (USPPHS, 2000). Alaska’s caries experience (dental decay) rates were at 65 percent for third-grade children with higher rates for racial/ethnic minorities. (See Figure 1 – Alaska Basic Screening Survey, 2004)
Similar patterns were seen in terms of untreated dental decay (See Figure 2 – Alaska Basic Screening Survey, 2004).

Dental decay rates in young Alaska children are also of concern - illustrated in Figure 3 for caries experience in kindergarten children and caries of upper front primary teeth (early childhood caries indicator) for children enrolled in Head Start (Figure 4). (Alaska Basic Screening Survey, 2005) Advanced dental decay in young children often results in dental treatment in hospital settings so restorative dental and extractions can be accomplished in one visit with the least emotional trauma to the young child. In these cases, treatment involves not only the cost of the dental care provided but hospital and anesthesia fees. Earlier detection of caries in these children offers an opportunity for preventive services (e.g., topical fluorides and education of parents on brushing to treat the dental “infection”) and more frequent recall so the progression of the disease can be monitored.

The bacteria that cause dental plaque and acid production that result in dental decay are typically passed mother/caregiver to child, therefore the caregiver’s oral health is an influencing factor on early childhood caries. (Berkowitz, 2003) Further, recent studies have indicated possible roles of maternal periodontal disease with adverse birth outcomes.

Factors reducing risk of dental decay include:

- Brushing with fluoridated toothpaste ideally at least after breakfast and before bedtime with parents assisting children age 8 and under;
- Nutrition and feeding practices that don’t promote development of dental decay (e.g., limiting frequency of soda and sugared beverages);
- Access to fluoridated drinking water or use of fluoride supplements in areas without fluoridated water;
- Use of other topical fluorides in children at risk for development of dental decay (e.g., low-income children, racial/ethnic minorities and children with special health care needs); and
- Use of dental sealants to seal the pits and fissures of teeth that may be susceptible to decay – especially on permanent first molars.
- Saliva flow and buffering capacity of saliva (note: many medications reduce saliva flow)
Figure 3

Percent of Kindergarteners with Caries Experience by Race

<table>
<thead>
<tr>
<th>Race</th>
<th>Total with Caries Experience</th>
<th>Healthy People 2010 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>48.2</td>
<td>42</td>
</tr>
<tr>
<td>Alaska Native</td>
<td>75.7</td>
<td>42</td>
</tr>
<tr>
<td>White</td>
<td>37.6</td>
<td>42</td>
</tr>
<tr>
<td>Other</td>
<td>60.2</td>
<td>42</td>
</tr>
</tbody>
</table>

Figure 4

Percent of Head Start Children with Caries Experience on Primary Anterior Teeth by Race

<table>
<thead>
<tr>
<th>Race</th>
<th>Total with Caries Experience</th>
<th>Healthy People 2010 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>42.5</td>
<td>42</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>60.9</td>
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</tr>
<tr>
<td>White</td>
<td>18.5</td>
<td>42</td>
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<tr>
<td>Other</td>
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<td>42</td>
</tr>
</tbody>
</table>
Dental sealants, to seal the pits and fissures of permanent teeth, along with community water fluoridation are the two most effective interventions to reduce dental decay in the population. Most urban areas of Alaska currently have optimal adjustment of fluoride in the community drinking water, however most rural villages lack the infrastructure required for water fluoridation of the drinking water. In communities lacking adjusted fluoride in the drinking water, fluoride supplements can be prescribed by health providers and children at-risk for development of caries can benefit from topically applied fluorides (gels, rinses, foams and varnish applications.)

Figure 5

Third Graders -- Dental Sealants
Percent with Dental Sealants by Race/Ethnicity

Alaska’s dental sealant rate of 52.4% exceeded the Healthy People 2010 goal of 50% for this indicator, however Figure 5 illustrates that non-Native racial/ethnic minorities lack the same access to this preventive service as white or Alaska Native children. (Alaska Basic Screening Survey, 2004)

Cleft lip/palate is one of the most common birth defects. In Alaska for 1996-2002, the prevalence of cleft lip with or without cleft palate is 34.5 per 10,000 live births for females and 32.7 per 10,000 live births for males. Prevalence rates for Alaska Native children are higher or listed at 47.1 per 10,000 live births for that period.

Trends in prevalence of oral clefts are illustrated below in Figure 6. (Alaska Birth Defects Registry). Use of folic acid and avoiding tobacco products can reduce the prevalence of oral clefts along with other neural tube defects.

Oral injuries including fractures and loss of teeth are another concern for young children. Factors to reduce the frequency of these injuries include use of safety restraints/care seats and use of mouth-guards as children begin to participate in contact sports (including soccer and basketball).
Access to dental care offers additional avenues for education and preventive approaches, including placement of dental sealants and application of topical fluorides. Access to dental care also offers an early intervention approach to remove decay and place restorations before the pulp of the tooth is involved with the decay process. Without routine access children can be faced with more extensive and expensive restorative dental care. The Alaska Medicaid program offers dental coverage for children enrolled in the program, however dentist participation in the program is limited. Currently, in the Medicaid program about 1 in 3 children receive any dental service during a given year and only 1 in 5 receive a dental treatment service. Figure 7 illustrates the dental utilization for children enrolled in Medicaid by age group (Source CMS 416 EPSDT utilization reports). Alaska’s EPSDT guidance for children enrolled in Medicaid is to refer children for a dental exam at age 3; or earlier if a problem is detected during screenings. Guidance from the American Academy of Pediatrics and American Academy of Pediatric Dentistry are for a dental referral with the eruption of the first tooth and no later than age 1. This earlier dental referral would be recommended for Alaska, especially given the extent of dental decay in young children, however the groundwork needs to be laid for increased dental participation in Medicaid and accepting younger children. Other states have encouraged participation of physicians and nurses in enhanced screening and triage for dental needs as well as application of fluoride varnish and topical fluorides to address the dental access issue.

**Adults and Seniors**

Adults, including seniors, also experience dental decay. However, in adulthood development of periodontal disease increases which also can result in tooth loss. Figure 8 illustrates trends in the Healthy People 2010 indicator related to no tooth loss due to caries or periodontal disease for adults aged 35-44. Figure 9 indicates about 23% of Alaska seniors had lost all of their permanent dentition (edentulous).

Tooth loss due to caries and periodontal disease indicates greater severity than measuring the prevalence of tooth decay or periodontal disease, however at this time Alaska does not have this type of data for adults and relies on the self-reported data on oral health in the Behavioral Risk Factor Surveillance System (BRFSS). Medications and cancer treatments can also increase risk for development of dental decay as...
they often result in decreased saliva flow. Recession of the gums exposing root surfaces also influences risk for development of new sites of dental decay.

Figure 7
Percent of children receiving dental services by age & type of service

Figure 8
Adults Age 35-44 with No Tooth Loss by Year
The 2004 BRFSS survey responses indicate 68% of Alaska adults and 60% of Alaskan seniors have seen a dentist in the last year. These rates, which indicate about 32% of adults lack routine access to dental care, have been relatively stable since these questions were first asked in BRFSS in 1995. In April 2007 an expansion of dental preventive and restorative services for adults enrolled in Medicaid were implemented. These services, which sunset in June 2009 without legislative reauthorization, offer the opportunity to increase preventive services and early intervention to reduce extraction of permanent teeth for adult Medicaid recipients and/or provide restorative care and denture services to adults needing those services. With provision of
services to adult Medicaid recipients, pregnant women enrolled in Medicaid also receive the benefits of preventive dental care and maintenance of periodontal disease.

Periodontal disease has been linked with general health including relationships with diabetes, cardiovascular disease and birth outcomes. A consensus conference of oral health experts, sponsored by the U.S. Health Resources and Services Administration in 2006, found evidence of the association of maternal periodontal disease with increased risk of preterm birth and low birth-weight, especially in economically disadvantaged populations (Brown, 2007). Additional research is being done to more fully explore the relationships of periodontal disease with systemic health and birth outcomes.

Use of tobacco and alcohol can also affect oral health. Use of tobacco is a significant risk factor for development of periodontal disease and for oral clefts as noted above. Tobacco use with alcohol accounts for 75-90% of all oral and pharyngeal cancers in the United States (Blot et al., 1988). Figure 10, below, illustrates the incidence of oral cancer in Alaska as compared with U.S. incidence.

**Figure 10**

Incidence of Oral Cancer in Alaska and U.S. by Year

Oral cancer is the 6th most common cancer in U.S. males and 4th most common in among African American men. About 32,000 new cases of oral cancer are diagnosed each year and it accounts for about 7,200 annual deaths (Greenlee et al., 2000). Survival rates for oral and pharyngeal vary by site and by stage of diagnosis. Nationally, the focus is to increase oral cancer screenings to increase detection at early, localized stages of the cancers. These efforts include training of dentists and medical staff as many at-risk adults lack routine dental care. Figure 11 illustrates the percent of oral and pharyngeal cancer detected at the earliest stage for Alaska and the United States, 1996-2001. The smaller number of Alaska cases creates more year-to-year variability in the data, however the general trend has been improving.
Workforce
In 2001, about 25% of Alaska dentists were aged 55 and above – this pattern was evident in Anchorage as well as the rest of the state (See Figure 12). Nationally, about 35% of dentists are age 55 and above. While individual circumstances may vary, dentists often now retire in their mid-50’s and most of these dentists in Alaska will likely retire by the end of the decade. This demographic trend in Alaska and nationally indicate that over the next decade more dentists will retire than dental graduates completing education to replace retirees. The workforce implications are especially significant for rural areas; Medicaid recipients and the elderly.

In 2002, Professional Licensing reported 463 Alaska dentists; or 1 dentist for every 1,386 residents using Department of Labor estimates. That ration is higher than national averages for that year at 1:1,695, however Alaska also has a higher proportion of non-private dentists in the workforce than most states given the number of dentists working with tribal dental programs. Alaska also experienced the greatest increase in dentist to population ratios of any state from 1993-2000. (Brown, 2005) While these statistics look favorable for Alaska, there is a problem of distribution with most dentists practicing in urban areas of the state. Much of rural and remote Alaska have received designation for dental-health professional shortage areas. The U.S. Health Resources and Services Administration estimates it would take about 20 additional dentists to provide dental services for residents living in these underserved areas of the state. (HRSA, 2005)

From the Medicaid perspective most Alaska dentists are enrolled in the Medicaid program (425 in FY2005). However, active dental providers, dentists having at least one paid Medicaid claim during FY2005, were only 340 dentists. Looking at dental providers with $10,000 or more in paid Medicaid claims, an amount typically less than 3% of gross receipts for a private practice, the number of dental providers at that level falls to 226. Many of the dentists practicing at the higher level work with the tribal dental programs and/or are pediatric dentists. Most private dental practices in Alaska nominally participate in the Medicaid program. Issues raised by private dentists include
Medicaid reimbursement, which for most dental procedures has been frozen at 1997 Medicaid payment levels; non-kept appointments by Medicaid recipients; excess paperwork; and/or liability provisions in the Medicaid provider agreement. While expansion of community health centers has increased some local access for Medicaid recipients and low-income populations, the dental components of these clinics have faced difficulties with recruitment and retention of dental staff.

Tribal programs in Alaska, faced with high rates of dental decay in their beneficiaries and dental vacancies, have developed the Dental Health Aide Program to address increased preventive services and education and assistance with some of the restorative treatment needs of the population. Other states faced with similar issues have utilized increased roles for dental hygienists under general supervision, enhanced screening and topical fluoride application by medical providers, and/or use of foreign trained dentists in under-served settings. The American Dental Hygiene Association and American Dental Association are both proposing new models of practitioners to address increased access to preventive dental services, earlier intervention and/or improved dental practice efficiencies to address dental access issues.

**RECOMMENDATIONS:**

**Prevention & Education:**

- Encourage health and education program collaboration to reinforce messages on oral hygiene, feeding practices for infants (e.g., no bottles at bedtime), and limiting the frequency of exposure to food and drinks that promote tooth decay (e.g., soda and sugared beverages.) Information on brushing should include use of fluoridated toothpaste (smear for toddlers and a pea-size drop of toothpaste for children age 3 and older) and parental assistance with brushing for children age 8 and under – battery-operated toothbrushes/aides should be discussed for children with special health care needs.
• Reduce availability of soda and sugared drinks in schools and encourage increased promotion of low-fat milk and water as healthier drink choices.

• Support adjustment of fluoride to optimal levels in community drinking water systems where there is adequate infrastructure for water plant operations and community support for this dental public health intervention.

• Encourage use of fluoride supplements in areas without optimal adjustment of fluoride in drinking water.

• Increase the availability of topical fluoride varnish and/or use of other topical fluorides for children at high risk for development of dental decay (e.g., children enrolled in Head Start and Medicaid).

• Promote use of car seats; seat belts; and mouth-guards when participating in contact sports to reduce the prevalence of oral injuries.

• Promote use of folic acid in women of childbearing age to reduce the prevalence of oral clefts and other neural tube defects.

• Continue to support tobacco use prevention and cessation initiatives (including smokeless tobacco).

Dental Access:

• Incrementally move towards dental referrals with the eruption of the first tooth and no later than age one for children enrolled in Medicaid and other at risk children (e.g., children with special health care needs).

• Encourage access to dental services for pregnant women – currently included with enhanced dental services for adults enrolled in Medicaid.

• Provide training and Medicaid reimbursement for enhanced dental screening (and triage) and application of topical fluoride varnish by physicians and nurses as part of well child exams.

• Support community health center expansion/enhancements to include dental services in underserved areas of the state.

• Encourage training and/or collaboration with general dentists and the Alaska Dental Society to increase availability of services for young children and pregnant women.

• Develop hospital-based general practice residencies to provide training to dentists for treatment of children with special health care needs and adults with disabilities.

• Pilot school-based/linked dental sealant programs in urban areas of the state to increase the dental sealant utilization rate for racial/ethnic minorities and children from low-income families.

• Support legislation to increase the scope of dental hygienist practice under general supervision to increase preventive dental services in schools, daycare, Head Start and home-based and institutional settings.

• Explore mechanisms to track Medicaid non-kept appointments and case management services to address issues in recipients with repeated missed appointments.
Financing:

- Increase dental Medicaid reimbursement to encourage greater private dental participation in the Medicaid program.
- Increase the eligibility level for child enrollment in Medicaid/Denali KidCare and maintain enhanced dental services for adults enrolled in Medicaid.
- Support state loan repayment and/or state support of community health centers to encourage local dental programs and recruitment/retention of dentists in underserved areas of the state (dental-HPSA areas).
- Utilize case management functions and/or fees in Medicaid to reduce non-kept appointments, coordination of referrals to private dental offices and compensation for the additional treatment time needed for dentists treating children with special health care needs.
- Maintain health department surveillance and policy development functions to monitor and address the oral health needs of Alaskans.

References:


U.S. Health Resources and Services Administration (HRSA), Financing Dental Education: Public Policy Interests, Issues and Strategic Considerations, Department of Health and Human Services, 2005.