

Senate Bill 09-09 Sponsors: Senator Boyd and Representative Massey Why Add Adult Dental Services to Medicaid and CHP+?

Oral health status affects overall health and well being, as well as employability and productivity. Poor oral health not only results in needless and avoidable pain and suffering but also is associated with a variety of other diseases and conditions, including respiratory disease, diabetes, stroke, heart disease and preterm and low birth weight deliveries.

- An abundance of health research over the last few decades demonstrates the adverse effects of poor oral health. It is estimated that adults lose 160 million hours from work annually as a result of dental ailments and visits that could have been avoided with certain oral health behaviors and preventive care.
- Some of the longer-term impacts include the need for more costly procedures and restorative treatment for dental problems that could have been more easily and inexpensively prevented or treated if detected earlier.
- Extensive research shows that oral health and physical health are inextricably linked, as oral
 diseases can have systemic effects. Untreated oral health problems are associated with a
 variety of adverse health outcomes, which include diabetes, stroke, heart disease, bacterial
 pneumonia and preterm and low birth weight deliveries.
- The availability of dental care for adults also affects the oral and overall health of their children. In utero, maternal oral flora is one of the key predictors of a child's oral flora yet adult periodontal (gum) infection affects up to 40% of reproductive-aged women. The oral bacteria of mothers are passed on to their infants; thus, increased decay-causing bacteria in the mother increase the likelihood that the infant will develop caries.
- Children also benefit from their parents having access to dental care. A study of Medicaid families revealed that when parents do not make at least one dental visit annually, their children are 13 times less likely to visit a dentist that same year.
- Adults with other medical conditions also benefit from preventive dental care. One study
 found that those with diabetes experience a 21% lower health risk and 9% lower healthcare
 costs with early dental care; those with coronary artery disease experience a 19% lower risk
 and 16% lower costs; and those with other cardiovascular diseases experience 17% lower
 risk and 11% lower costs.

Contact Person: Jennifer Miles at 303-668-3979 or jennifer@milesgovtrelations.com

Senate Health and Human Services Committee Colorado State Capitol 200 East Colfax Denver, CO 80203

RE: Senate Bill 09-09

Dear Senator:

The Health Advocates Alliance wishes to express its support for SB09-09 which would add adult dental services to optional services under the Colorado Medical Assistance Act and add dental services to prenatal and postpartum care for pregnant women under the Children's Basic Health Plan Act.

The Health Advocates Alliance is a diverse group of consumers, providers and health care advocates representing a broad spectrum of the health care system and sharing a demonstrated commitment to comprehensive health care reform in Colorado. The Alliance recognizes that research indicates a link between poor oral health and a variety of systemic conditions and that oral health can no longer be seen as separate from overall health. Based on this, the Alliance identified the need for an adult dental benefit to be one of its top legislative priorities for 2009.

Oral health status affects overall health and well being, as well as employability and productivity. Poor oral health not only results in needless and avoidable pain and suffering but also is associated with a variety of other diseases and conditions, including respiratory disease, diabetes, stroke, heart disease and preterm and low birth weight deliveries. Poor oral health also may lead to loss of employment and reduced hours of work due to pain, infection and associated dental visits.

We recognize the budgetary challenges that Colorado is facing this fiscal year, but believe it is important to emphasize the oral health needs that low income adults face and how it makes good fiscal sense to prevent and treat early on rather than face the more expensive consequences that oral disease can create.

All Kids Covered 2010
Bell Policy Center
Chronic Care Collaborative
Colorado Academy of Family Physicians
Colorado Center for Law and Policy
Colorado Children's Campaign
Colorado Coalition for the Medically Underserved
Colorado Community Health Network
Colorado Consumer Health Initiative
Colorado Medical Society
Colorado Progressive Coalition
Colorado School Medicaid Consortium
Health Care for All Colorado
KEENE Research & Development
Planned Parenthood of the Rocky Mountains



Human Rights & Community Relations
Denver Women's Commission
Chaer Robert, Director
201 W. Colfax Avenue, Dept 1102
Denver, CO 80202
p: 720-913-8465
f: 720-913-8470
www.denvergov.org/women

January 22, 2009

Dear Legislators:

The Denver Women's Commission endorses Senate Bill 9—Add Adult Dental to Medicaid and CHP+ — by Senator Boyd and Rep. Massey. This bill came out of the Health Care Task Force (Interim committee). It adds certain basic prevention and welfness dental procedures (to be determined by rule) to services available to pregnant and post-partum women on Medicaid and the Child Health Plan. There is a strong relationship between the poor oral health of expectant mothers and pre-term low birth weight babies, which have more health problems. After birth, mothers also may transmit the bacteria responsible for tooth decay to their infants and toddlers through the sharing of saliva. But only 42% of pregnant women receive counseling about dental care (compared to 93% counseled about smoking). (www.cdphe.state.co.us/pp/oralhealth/snapshot.html)

The Denver Women's Commission was establish in 1985 as part of Denver city government. Our mission is to promote the social, economic and political quality of life in Denver by assisting women in the attainment of equality and full opportunity. We monitor and recommend legislation and proposed policy changes affecting women. We advocate for women. We empower women through coalition building, disseminating information and sharing community resources.

If you have any questions, please contact me at 720-913-8465 or chaer.robert@denvergov.org.

Sincerely,

Chaer Robert

Director

Denver Women's Commission



Testimony of Karen Cody Carlson, President/CEO Dental Aid Before the Senate Health and Human Services Committee February 5, 2009

RE: Senate Bill 09-09

Senators, thank you very much for the opportunity to testify on behalf of Senate Bill 09-09, which will provide much-needed oral health benefits for Medicaid-eligible adults.

My name is Karen Cody Carlson, and I am the President & CEO of Dental Aid, a private not-for-profit oral health provider located in Boulder County. I am also the Advocacy Committee Chair of Oral Health Awareness Colorado! (OHAC!), and the current chair of the Colorado Oral Health Network (COHN).

For 35 years, Dental Aid has been a leader in oral medicine designed to meet the needs of low-income and uninsured residents throughout the Front Range. Currently, we see more than 7,600 patients each year who access care during more than 19,000 clinical visits. It is our desire to positively change oral health knowledge and behaviors, thus changing the oral health cultures in at-risk populations.

There is a growing body of evidence that demonstrates the close connection between oral health and systemic health. Preventive oral health, particularly that which targets elimination of periodontal disease (gum disease) has been shown to positively influence the course of chronic diseases such as diabetes, heart disease, stroke, Alzheimer's Disease, and possibly pregnancy outcomes.

Every day, Dental Aid staff see Medicaid-eligible adults who cannot receive subsidized oral health care because there is no adult dental benefit outside of emergency care. That means that a victim of domestic violence can have her front teeth pulled if they have been damaged, but cannot receive the partial that will restore her smile and help her in her quest to become employed and support her children. The elderly nursing home resident can have neglected teeth pulled, but is unable to have them replaced with dentures, thus compromising nutrition and general health. A disabled adult can have a tooth extracted if it abscesses, but cannot receive regular ongoing oral health care to prevent the spread of oral disease. It is difficult to educate a parent about the importance of oral health care for his or her child when the parent is not able to get needed care to become orally healthy.

According to the Kaiser Commission on Medicaid and the Uninsured, more than half of low-income adults have no dental insurance, and two-thirds do not get regular dental check-ups. Even low-income adults who qualify for Medicaid are not able to easily access care except in emergency situations. This cycle of episodic emergency care means that safety net providers are faced with an escalating number of patients for whom behavior change becomes almost impossible. Emergency oral health care becomes their only oral health care.

Economic measures, positive health outcomes, and simple humanitarianism would suggest that investing in an adult dental benefit for Medicaid now will lead to better general health in at-risk populations for generations to come. It's the right thing to do. Thank you.

Casey Hein, BSDH, MBA PO Box 1737 Evergreen, CO 80437 caseyheinrdh@comcast.net 303.670.8558

February 2, 2009

Senate Health and Human Services Committee Colorado State Capitol 200 East Colfax Denver, CO 80203

RE: Senate Bill 09-09

Dear Senator,

As a citizen of Colorado and dental hygienist who is intensively involved in research related to the significant role of oral health in achieving and sustaining overall health, I am writing to urge your support of SB09-09. As part of a university-led initiative, one of my most important professional responsibilities is to weigh the scientific evidence associated with oral-systemic relationships, and track insurance industry trends in providing dental benefits for certain populations at risk for oral complications of systemic diseases and conditions. In doing so, I am thoroughly convinced that inclusion of preventive and basic oral health services, more specifically treatment of periodontal (gum) disease, as part of comprehensive healthcare will result in a significant overall reduction of Medicaid spending in targeted high-risk populations. Published studies indicate that it is reasonable to expect that provision of periodontal treatment in certain high risk populations will translate into cost savings related to medical expenses associated with oral complications of diabetes and obstetric outcomes, and incidence of pneumonia within the aging population. Should these vital dental services be provided and cost-benefit tracked, this has the potential to provide opportunities for significant improvements in delivery of dental care, demonstrate cost-savings in the Medicaid system of Colorado and provide a blueprint for healthcare policy decisions for other state Medicaid systems.

In advocating for this provision of care in support of SB09-09, I offer the following information which I hope you will consider.

Background

Over the last several decades, there has been substantial investigation into the relationship between oral health and overall health. Much has been learned about such things as caries, oral complications associated with treatment of head and neck cancer, oral complications related to solid organ transplants, the relationship between nutrition and oral health, and the threat that oral diseases/conditions pose to successful aging. Equally as important, but perhaps not as well recognized, is an emerging base of evidence supporting interrelationships between periodontal disease and inflammatory driven disease states/conditions such as diabetes, atherosclerosis-induced diseases, adverse pregnancy outcomes, osteoporosis, rheumatoid arthritis, Alzheimer's disease, and chronic kidney disease/end stage renal disease, among other diseases and conditions. Current available evidence indicates that in people with diabetes, periodontal disease is associated with poor glycemic control, nephropathy, and cardiovascular disease. 1.2.3.4.5 Diabetic patients with chronic

¹ Grossi SG and Genco RJ. Periodontal disease and diabetes mellitus: a two-way relationship. *Ann Periodontol* 3:20-29, 1998.

² Thorstensson H, Kuylenstierna J, Hugoson A. Medical status and complications in relation to periodontal disease experience in insulin-dependent diabetics. *J Clin Periodontol* 1996;23(3 Pt 1):194-202.

³ Saremi A, Nelson RG, Tulloch-Reid M, et al. Periodontal disease and mortality in type 2 diabetes. *Diabetes Care* 2005;28(1):27-32.

⁴ Shultis W, Weil J, Looker HC, et al. Effect of periodontitis on overt nephropathy and end-stage renal disease in type 2 diabetes. *Diabetes Care* 2007;30:306-311.

⁵ Taylor GW, Borgnakke WS. Periodontal disease: associations with diabetes, glycemic control and complications. *Oral Diseases* 2008;14, 191-203.

periodontitis have a higher incidence of nephropathy and periodontal disease is a strong predictor of mortality from diabetic nephropathy and ischemic heart disease.⁶ It has also been shown that bacterial components of dental plaque are a major cause of respiratory infections in older adults, especially those in institutional settings.^{7,8,9,10}Aspiration pneumonia may compose up to 48% of infections in personal care homes and the increased cost for treatment and care of patients developing pneumonia has increased dramatically over the last several years. Aspiration pneumonia is now the most significant cause of morbidity, hospitalization, and mortality in institutional and long-term care settings. 11,12

Maternal periodontal disease has emerged as a potentially modifiable risk factor for adverse pregnancy outcomes 13,14,15,16,17,18 These adverse outcomes include spontaneous abortion/miscarriage, preterm birth/low birth weight. and impaired neonatal growth (fetal growth restriction). Pregnancy and parturition involve a complex series of molecular and biological events for both mother and fetus. Maternal and fetal exposure to periodontal bacteria (Gram-negative oral pathogens) and their metabolic byproducts appear to trigger inflammatory events in both mother and fetus that stimulate early rupture of amniotic membranes and parturition. Many studies linking periodontal disease to adverse pregnancy outcomes indicate a 7-10 fold greater risk for adverse outcomes in pregnancies where periodontal disease is present and some demonstrate as much as 20-30% reduction in adverse outcomes when periodontal care is provided during pregnancy. 12,17

Preliminary data indicate that periodontitis causes changes in systemic physiology and biochemistry that alter immune function, serum lipid levels, and inflammatory biomarkers leading to a systemic inflammatory state; and furthermore, that these changes are reversible with periodontal treatment. 19,20,21,22,23,24,25 The evidence to support some of these

⁶ Saremi A, Nelson RG, and Tulloc-Reid M. Periodontal disease and mortality in type 2 diabetes. Diabetes Care 28:27-

⁷ Terpenning MS, Taylor GW, Lopatin DE, et al. Aspiration pneumonia: dental and oral risk factors in an older veteran population. J Am Geriat Soc 49:557-563, 2001.

Garcia R. A review of the role of oral and dental colonization on the occurrence of health care-associated pneumonia: underappreciated risk and a call for interventions. Am J Infection Control 33:527-541, 2005.

⁹ Shay K, Scannapieco FA, Terpenning MS, et al. Nosocomial pneumonia and oral health. Spec Care Dent 25:179-187, 2005.

 $^{^{10}}$ Okuda K, Kimizuka R, Abe S, et al. Involvement of periodontopathic anaerobes in aspiration pneumonia. JPeriodontol 76:2154-60, 2005.

¹¹ Kikawada M, Iwamoto T, Takasaki M. Aspiration and infection in the elderly: epidemiology, diagnosis and management. Drugs & Aging 22:115-130, 2005.

¹² Oh E, Weintraub N, Dhanani S. Preventing aspiration pneumonia in the nursing home. J Am Med Direct Assoc 6:76-80, 2005.

¹³ Paquette DW. Periodontal disease and the risk for adverse pregnancy outcomes. Grand Rounds Oral-Sys Med 4:14-23, 2006.

¹⁴ Lopez NJ, Smith PC, Gutierrez J. Periodontal therapy may reduce the risk of preterm low birth weight in women with

periodontal disease. *J Periodontol* 73:911-924, 2002.

15 Dasanyake AP, Russell S, Boyd D, et al. Preterm low birth weight and periodontal disease among African Americans. Dent Clin North Am 47:115-125, 2003.

¹⁶ Lopez NJ, DaSilva I, Ipinza J, et al. Periodontal therapy reduces the rate of preterm low birth weight in women with pregnancy-associated gingivitis. *J Periodontol* 76:2144-2153, 2005.

Michalowicz BS Hodges JS, DiAngelis AJ. Treatment of periodontal disease and the risk of preterm birth. N Engl J Med 355:1885-1894, 2006.

¹⁸ Boggess KA, Edelstein B. Oral health in women during pregnancy: implications for birth outcomes and infant oral health. Matern Child Health J 10:169-174, 2006.

¹⁹ Iacopino AM, Cutler CW. Relationships between periodontitis and systemic disease: recent concepts involving serum lipids. J Periodontol 71:1375-1384, 2000.

²⁰ Denardin E. The role of inflammatory and immunological mediators in periodontitis and cardiovascular disease. *Ann* Periodontol 6:30-40, 2001.

²¹ Amar S, Gokce N, Morgan S. Periodontal disease is associated with brachial artery endothelial dysfunction and systemic inflammation. Atherioscler Thromb Vasc Biol 23:1245-1249, 2003.

²² D'Aiuto F, Parkar M, Andreou G. Periodontitis and systemic inflammation: control of the local infection is associated with a reduction in serum inflammatory markers. J Dent Res 83:156-160, 2004.

²³ Morita M, Horiuchi M, Kinoshita Y, et al. Relationship between blood triglyceride levels and periodontal status. Comm Dent Health 21:32-36, 2004.

²⁴ Loos BG. Systemic markers of inflammation in periodontitis. *J Periodontol* 76: 2106-2115, 2005.

interrelationships appears to be sufficient enough that governmental authorities, ^{26,27,28,29} educational institutions, ³⁰ private insurers, ³¹ and professional associations ^{32,33} have pronounced a call to action relative to increasing awareness of the significance of oral health in achieving and sustaining overall health and application of this science into everyday patient care.

Evidence of Cost savings Related to Treatment of Periodontal Disease in High Risk Populations

In recognition of the numerous medical conditions which have been associated with periodontal disease, the insurance industry has investigated whether there is a cost-benefit of treatment of periodontal disease. In one study,³¹ researchers investigated whether treatment of periodontal disease can contribute to changes in overall risk and medical expenditures for 3 chronic conditions- diabetes, coronary artery disease, and cerebrovascular disease. They found a possible association between treatment of periodontal disease and a reduction in per member, per month medical costs, leading them to conclude that treatment of periodontal disease may significantly reduce the medical costs for these 3 chronic diseases. The larger per person savings for the three-year study period suggests that the overall medical expenditure cost savings linked to preventive oral care may increase significantly over time.

In another recently reported study of a large group of Japanese adults,³⁴ researchers reported that the cumulative medical costs for adults with severe periodontitis was approximately 21% higher than for adults without periodontal disease, and hospital admission rates were highest among those with severe periodontal disease. In males, the annual hospital costs of adults with severe periodontal disease were 75% higher than for adults without periodontal disease. Researchers concluded that periodontal disease might increase the medical care costs for diabetes, digestive diseases, and liver disease, and further, that periodontal disease may play an important role in the cumulative health care cost increases in middle-aged adults. In addition, various guidelines created by health departments of state agencies have begun to address the importance of oral health in the overall health of their citizenry.^{35,36}

Overall costs for healthcare will continue to rise placing an increasing burden on the Medicaid system of Colorado. It may be possible to demonstrate that provision of preventive and basic oral health services as part of comprehensive healthcare for these high-risk populations in Colorado results in reductions in overall healthcare spending, and further, that when extrapolated across the entire population of Colorado, these types of interventions could save millions of dollars in modifiable costs. Thus, demonstrated savings in healthcare costs would provide strong evidence for consideration of important changes to the Medicaid system. It has been suggested that the overall savings in healthcare costs is even greater when preventive and basic oral health services are provided earlier in life.³¹

²⁵ Moeintaghavi A, Haerian-Ardakani A, Talebi-Ardakani M, et al. Hyperlipidemia in patients with periodontitis. *J Contemp Dent Pract* 6:78-85, 2005.

²⁶ US Department of Health and Human Services. *Oral Health in America: A Report of the Surgeon General.* Rockville, MD: US Department of Health and Human Services, National Institute of Dental and Cranial Research, National Institutes of Health; 2000.

²⁷ http://www.who.int/oral_health/action/groups/en/print.html; accessed May 10, 2008

http://www.hc-sc.gc.ca/ahc-asc/activit/about-apropos/index e.html; accessed May 10, 2008

²⁹ Hobdell M, Petersen PE, Clarkson J, et al. Global goals for oral health 2020. Int Dental J 2003;53:285-288.

³⁰ Mouradian WE, Reeves A, Kim S, et al. An oral health curriculum for medical students at the University of Washington. *Academic Medicine*, 80; 5; May 2005.

³¹ Albert DA, Sadowsky D, Conicella ML, et al. An examination of periodontal treatment and per member per month medical costs in an insured population. *BMC Health Services Res* 6:103-109, 2006.

Report IX; Contemporary Issues in Medicine: Oral Health Education for Medical and Dental Students. Medical School Objectives Project; American Association of Medical Colleges; June 2008. Accessed October 16, 2008 athttps://services.aamc.org/Publications/showfile.cfm?file=version116.pdf&prd_id=238&prv_id=289&pdf_id=116

³³ Position of the American Dietetic Association: Oral Health and Nutrition J Am Diet Assoc. 2007; 107:1418-1428. ³⁴ Ide R, Hoshuyama T, Takahashi K. The effect of periodontal disease on medical costs in a middle-aged Japanese population; a longitudinal worksite study. *J Periodontol* 78:2120-2126, 2007.

³⁵ New York State Department of Health. Oral Health Care during Pregnancy and Early Childhood; Practice Guidelines. Available at http://www.health.state.ny.us/publications/0824.pdf. Accessed December 30, 2008.

³⁶ Wisconsin Department of Health Services. Wisconsin Diabetes Mellitus Essential Care Guidelines; Section 9: Oral Care. Available at http://dhs.wisconsin.gov/health/diabetes/PDFs/GL09.pdf. Accessed December 30, 2008.

The most obvious target populations are adult Medicaid patients with periodontal disease who have diabetes, who are at risk for adverse pregnancy outcomes, or at risk for pneumonia. Tracking certain clinical outcomes (to be identified) and financial metrics will be valuable in measuring the cost-benefit of treatment of periodontal disease.

There is no better time to proceed with funding this type of essential care. With funding to support SB09-09 we will be able to clearly define high-risk populations requiring preventive and basic oral health services as well as the type and amount of these oral health services necessary to achieve cost-savings in the Medicaid system of Colorado.

Please feel free to contact me if I can be of assistance in further testimony or strategic planning.

Sincerely,

Casey Hein
Assistant Professor; Division of Periodontics
Director, Interprofessional Oral-Systemic Curriculum Development
Faculty of Dentistry
University of Manitoba
Bannatyne Avenue
Winnipeg, Manitoba R3E 0W2
Canada

Assistant Professor in Craniofacial Biology & Associate Professor in Dental Hygiene University of Colorado School of Dental Medicine

February 5, 2009

Senate Health and Human Services Committee Colorado State Capitol 200 East Colfax Denver, CO 80203

RE: Senate Bill 09-09

Dear Senators:



www.autismcolorado.org office@autismcolorado.org

"Heartfelt Support"

The Autism Society of Colorado (ASC) expresses its support for SB09-09 which would add adult dental services to optional services under the Colorado Medical Assistance Act and add dental services to prenatal and postpartum care for pregnant women under the Children's Basic Health Plan Act.

Many adults with autism are on Medicaid and have little or no access to dental services if Medicaid does not provide them. This is exacerbated by the circumstance that many people with autism are non-verbal and have very poor hygiene skills as well as social skills.

Without regular dental care, these adults often have preventable but serious oral health problems. Because they are unable to effectively communicate what is hurting them, they are often become aggressive, violent and self-injurious in addition to being ill and in terrible pain. When this occurs, instead of going to a dentist, as this benefit is not available to them, they are drugged.

ASC commonly hears from behavioral interventionists called in response to violent behaviors that indeed the issue was a dental and/or oral health problem.

What is further concerning is that oral health can predicate systemic conditions including heart disease and diabetes.

Per OHAC!, poor oral health has a number of immediate short-term consequences including pain and discomfort, which can lead to disruptions of daily life, such as difficulty working and sleeping, and is responsible for lack of employment, and for the employed, lost work days. It is estimated that adults lose 160 million hours from work annually as a result of dental ailments and visits that could have been avoided with certain oral health behaviors and preventive care.

We recognize the budgetary challenges that Colorado is facing this fiscal year, but believe it is important to emphasize the oral health needs that low income adults and adults with disabilities face and how it makes good fiscal sense to prevent and treat early on rather than face the more expensive consequences that oral disease can create.

Sincerely,

Betty Lehman, executive director Autism Society of Colorado



February 5, 2009

Senate Health and Human Services Committee Colorado State Capitol 200 East Colfax Denver, CO 80203

RE: Senate Bill 09-09

Dear Senator:

Oral Health Awareness Colorado! wishes to express its support for SB09-09 which would add adult dental services to optional services under the Colorado Medical Assistance Act and add dental services to prenatal and postpartum care for pregnant women under the Children's Basic Health Plan Act.

Currently, adults on Medicaid have very limited access to dental services. Other than emergency care, Medicaid-eligible adults may only receive oral health care if pre-approval is obtained for treatment of an oral health condition that is exacerbating a concurrent medical condition. Pregnant women on CHP+ do not have dental coverage.

Only 50% of adults in Colorado with incomes below \$25,000 have visited a dentist in the last year. Given that recent research indicates a link between poor oral health and a variety of systemic conditions including heart disease, diabetes, and pre-term births, oral health can no longer be seen as separate from total health. Timely oral health care can prevent the need for more costly procedures and restorative treatment for dental problems that could have been more easily and inexpensively prevented or treated if detected earlier.

Poor oral health has a number of immediate short-term consequences including pain and discomfort, which can lead to disruptions of daily life, such as difficulty working and sleeping, and is responsible for lack of employment, and for the employed, lost work days. It is estimated that adults lose 160 million hours from work annually as a result of dental ailments and visits that could have been avoided with certain oral health behaviors and preventive care.

We recognize the budgetary challenges that Colorado is facing this fiscal year, but believe it is important to emphasize the oral health needs that low income adults face and how it makes good fiscal sense to prevent and treat early on rather than face the more expensive consequences that oral disease can create.

Sincerely,

Karen Cody Carlson

Advocay Committee Chair