

Ensuring Shining Smiles for Colorado Kids

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by Beverly R. Buck, J.D. MPA

Center for Human Investment Policy
University of Colorado-Denver

As part of its “Shining Smiles” initiative, the Anthem Blue Cross and Blue Shield Foundation commissioned me to study the current delivery system of oral health services for Colorado’s children and to identify barriers to increased access, particularly for low-income and uninsured children. After studying child health and well-being for fifteen years, I was not surprised by what I found: too many children not getting the services they need and deserve, and low-income children missing out in disproportionate numbers. This paper is a bird’s-eye view of children’s dental health and the structural and systemic issues that contribute to poor dental health for Colorado’s children.

A BRIEF OVERVIEW OF CHILDREN’S DENTAL HEALTH

Every nine minutes a child is born in Colorado. Parents are concerned about coughs and colds, and they fret about rashes and immunizations. They probably don’t think about tooth decay – most likely because it doesn’t seem all that important in the general scheme of child rearing. Yet, despite state and national goals to reduce and repair childhood cavities, tooth decay is the most common, chronic, and *preventable* disease of childhood.¹

Oral Health and Who Has It

Children with healthy teeth chew food easily, learn to speak clearly, and smile with confidence. They have good dental hygiene and nutritional habits, have regular access to care, and prioritize oral health as part of their overall health regimen.

However, many of Colorado’s children are not orally healthy. Tooth decay remains the single most common and preventable disease of childhood – five to eight times more common than asthma. About 31 percent of Colorado children ages 6-8, and 50 percent age 15 have untreated dental caries. One-fifth (20%) of adolescents have early periodontal disease. Only one-fourth of the state’s children have at least one permanent molar treated with a dental sealant to prevent decay.

Low-income children are less likely to have dental insurance and find it harder to access dental health care.

Low income is now the best predictor of poor oral health in children,² with quality of oral health being directly related to income level. Most tooth decay (80%) can be attributed to just 25 percent of all children, most of whom are poor. Only 41 percent of those with annual family incomes below \$10,000 report a dental visit in the past year compared with 73 percent with family incomes above \$35,000.³ Dental insurance is typically employment-based. Persons who do not work, who are self-employed, or who work part- or full-time minimum wage jobs, are likely not to have dental insurance.



Colorado Children: No Shining Smiles

Timothy, Shandra, George, and Tina are Colorado children who refused to eat because their teeth hurt; were refused dental care; who never owned a toothbrush; had to undergo surgery under general anesthesia to remove rotting and infected teeth; or had dentures by the time they were teenagers.

A paper commissioned by

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Poor oral health and lack of access to preventive dental services are concentrated disproportionately among children in ethnic minority groups (particularly Hispanic, African American, and Native American children), and these disparities continue to grow larger every year.⁴ Preschool-age children, homeless children, children not in school, and migrant children in these groups are particularly at risk for poor oral health.⁵

Poor oral health is preventable. Good oral health begins before a child is born and continues even *before* baby teeth emerge. Because dental disease is largely preventable, and is less expensive when prevented than when treated, prevention strategies are critical to a cost-efficient, effective system of dental care delivery. The basic elements of prevention include early education and intervention; good nutritional habits; brushing and flossing; fluoridated water; and regular visits to the dentist to receive exams and screenings, fluoride treatments, cleanings, and sealants. Timely restorative care can also be considered a preventive measure because early treatment can prevent conditions from worsening.



Early education and intervention: Early education and intervention should begin during the prenatal period or very early in the child's life, before age one. During the prenatal period, it is necessary to educate parents about fluorides, first-year oral development, the effects of sucking on fingers or pacifiers, breastfeeding, bottle use, teething and tooth eruption, and oral hygiene after tooth eruption. If parents plan to bottle feed they need to be educated on avoiding putting the baby to bed with a bottle or propping the bottle in a baby's mouth. This will help to prevent a severe oral disease known as baby bottle tooth decay or early childhood caries, which not only decays existing baby teeth, but also increases risk of future decay. In addition, studies show that reducing the mother's cavity-causing bacteria will limit the bacteria being passed to the baby. Therefore, it is also necessary for parents to receive dental care and treatment before an infant's birth.




Good dietary and nutritional habits: Developing and maintaining good dietary and nutritional habits helps prevent tooth decay and forms a lifelong foundation for good oral health. Diet plays two major roles in oral health. The first relates to consuming foods that contribute to oral health. This involves the consumption of foods rich in calcium, vitamin D, vitamin C, and other nutrients and minerals that are vital to the development of strong bones and teeth and healthy gums. Second, food and eating habits have a direct effect on tooth decay. When food is consumed, certain bacteria commonly associated with tooth decay, break down carbohydrates, or sugars, in the mouth and create an acid that is responsible for tooth decay. Foods (especially carbohydrates) that are consumed frequently and adhere to the teeth, contribute to the development of this acid and tooth decay.


Colorado and Fluoride


Colorado community water systems providing optimal levels of fluoride serve 83 percent of the population, above the national level of 62 percent. However, many municipal systems have aging and malfunctioning equipment that will need to be replaced in the next five years, according to the Colorado Department of Public Health & Environment (CDPHE).

In a survey about tooth decay and fluoridated water, CDPHE found a "corridor of decay" running from northeast to southwest Colorado. The counties with the highest percentage of children with decayed teeth were the areas where the fewest residents (less than 25 percent of the population) were served by optimal fluoride levels in community water supplies (either natural or adjusted), or where the school districts did not participate in fluoride rinse programs. These were also the counties with the fewest numbers of licensed dentists and the fewest numbers of dentists participating in Medicaid.

Therefore, eating a balanced diet and limiting the frequency of between-meal snacks and the intake of simple sugars or sticky carbohydrates, will reduce the risk of developing tooth decay.


 **Regular brushing and flossing:** Oral hygiene techniques such as brushing and flossing are recommended for children of all ages, from the eruption of the first tooth throughout life. Regular tooth brushing and flossing are needed to remove as much plaque as possible. Brushing teeth at least once a day, preferably twice a day, with a fluoride-containing toothpaste disrupts and removes unwanted plaque and helps fight decay. Parents must brush very young children's teeth and gums, and later, must supervise as the child learns to do this on their own. Flossing removes plaque from between the teeth, which are inaccessible to the bristles of a toothbrush. Flossing should be done for the young child by parents, and later, parents should supervise.


 **Fluoride:** Fluoride is a natural chemical that can be added to drinking water and protects developing and emerging teeth by strengthening the enamel (the hard outer coating) on teeth. Regular and frequent exposure to low doses of fluoride is the best way to protect against dental caries. Fluoride is available naturally, in varying degrees, in some water sources; by supplements in the water supply; or artificially, in topical forms, such as rinses, toothpastes, varnishes, or dietary supplements; or by direct application to the tooth. The American Academy of Pediatric Dentists recommends that children who do not get enough fluoride should start taking additional amounts from 6 months of age until they are at least 16 years old. In Colorado, fluoridated public water systems cost about two dollars annually per person.

 **Regular dental checkups:** Regular dental checkups by a dentist are a vital part of oral health supervision. Checkups include oral screenings and exams that provide evidence about the condition of the gums and teeth, and provide a basis for measuring overall oral health, the success of preventive interventions and treatments, and the achievement of good oral health outcomes. The goals of the exam are to identify disease and risk factors. Not only are exams used to obtain information about the progress of disease, but also to determine a child's risk factors. With children under the age of three, who may have no obvious disease, dentists may use the exams to assess the child's mouth for signs of plaque development and as an opportunity to tailor future care to the child's individual level of risk. During a checkup, oral cleanings may also be performed to help remove plaque that may not be removed by brushing and flossing alone. In addition, during this time, children may receive further instruction or education on proper oral care techniques and good dietary habits.

Despite what we know about prevention strategies and the cost-benefit associated with this approach, Colorado dental health experts estimate that 150,000 children in Colorado do not see a dentist or cannot get sealants. Research indicates that most children do not visit a dentist regularly – and that for one in four children, regardless of age, the first experience with a dentist is through the hospital emergency room!⁶ Emergency room visits are expensive, and children may leave having their symptoms (pain and infection) treated, but their teeth untouched.⁷ The cost to treat one child for early childhood tooth decay is between \$1000-2000 dollars, and costs can double if hospitalization is required.⁸

(Figure 1)

 **Sealants:** Most tooth decay in children and adolescents occurs on the chewing surfaces of the molars (back teeth). Dental sealants are thin plastic coatings that are applied to the chewing surfaces of teeth to prevent tooth decay by creating a physical barrier against bacterial plaque and food retention. Sealants can be applied to both primary and permanent teeth, but most children benefit by placing sealants as soon as their first permanent molars erupt, around age six. In Colorado, a child's complete dental sealant treatment (eight molars) costs approximately \$120. If applied carefully, dental sealants can protect against tooth decay for many years.

 **Restorative care:** Though restorative care is not necessarily considered a preventive measure, when tooth decay does occur, timely restorative care can prevent conditions from worsening and severe dental decay and gum disease from developing.

Prevention Pays: Cost of Dental Treatments

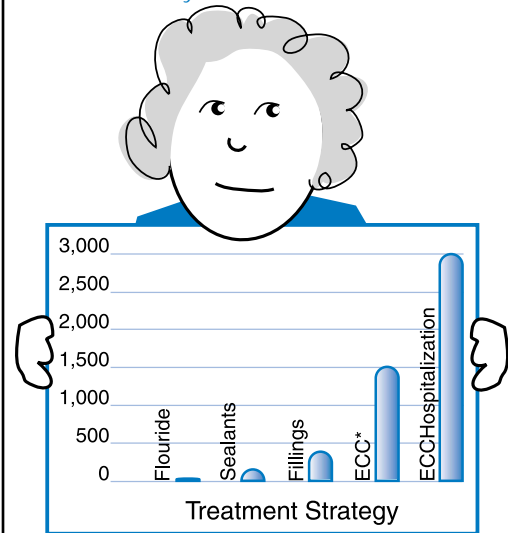


Figure 1* = cost of treatment for early childhood caries

A BRIEF OVERVIEW OF COLORADO DENTAL PRACTICE

The Colorado Dental Practice Law (Colorado Dental Practice Act, Colorado Revised Statutes §§12-35-101, *et seq.* updated November 1999, and accompanying regulations), defines who can practice dentistry and under what conditions. Conditions include particular tasks, required supervision, necessary training, where services are being performed, etc. The law requires dentists and dental hygienists to be licensed.

What Dental Practitioners Do

Dentists

Dentists diagnose, prevent, and treat problems of the teeth and tissues of the mouth. They remove decay, fill cavities, examine x rays, place protective plastic sealants on children's teeth, straighten teeth, and repair fractured teeth. They also perform corrective surgery of the gums and supporting bones to treat gum diseases. Dentists extract teeth and make molds and measurements for dentures to replace missing teeth. They provide instruction in diet, brushing, flossing, the use of fluorides, and other aspects of dental care. Dentists also administer anesthetics and write prescriptions for antibiotics and other medications.

Most dentists are general practitioners, handling a wide variety of dental needs. Other dentists practice in one of eight specialty areas. Orthodontists, the largest group of specialists, straighten teeth. The next largest group of specialists, oral and maxillofacial surgeons, operates on the mouth and jaws. The other specialties are: pediatric dentistry (dentistry for children); periodontics (treating the gums and the bone supporting the teeth); prosthodontics (making artificial teeth or dentures); endodontics (root canal therapy); dental public health; and oral pathology (studying diseases of the mouth).⁹ Dentists generally have the ultimate responsibility for diagnosis, treatment planning, or the prescription of therapeutic measures and may not assign these responsibilities.

Licensed dental hygienists

Generally, the Colorado Dental Practice Act precludes dental hygienists and dental assistants from performing any dental procedure that will contribute to, or result in, an irreversible alteration of the oral anatomy. Licensed dental hygienists may perform *supervised* dental hygiene under the general supervision of a licensed dentist or *unsupervised practice* of certain tasks. Currently, Colorado is the only state that allows *unsupervised practice* for dental hygienists; restrictions are not placed on the types of settings that hygienists may practice unsupervised. Unsupervised practice allows a dental hygienist to perform certain dental procedures without the specific permission of a dentist, either in a separate hygiene practice or another type of setting like a nursing home, school clinic, corporate setting, or a satellite dental hygiene office owned by a dentist. (Administration of anesthesia and sedation are exceptions to unsupervised practice. The Dental Practice Act has specific requirements for supervision and specialized training for these dental procedures.)

Dental Auxiliaries

The Colorado Dental Practice Act defines a *dental auxiliary* (sometimes referred to as a dental assistant) as any person not a dentist or dental hygienist licensed in Colorado who may be assigned or delegated to perform

dental tasks or procedures defined by law. The law is specific as to what a dental auxiliary may or may not do. An auxiliary may perform the following tasks under the *personal direction* of a licensed dentist: smoothing and polishing tooth surfaces; applying fluorides and other recognized topical agents for the prevention of oral disease; gathering and assembling information for patient histories, oral inspection, and charting; administering topical anesthetic; any other task or procedure that does not require the professional skill of a licensed dentist. Colorado law requires that a dental auxiliary's work be performed in the office of a licensed practicing dentist. The law places restrictions on how many offices licensed dentists may maintain in which dental auxiliaries work and requires that dentists use no more dental auxiliaries than they can reasonably supervise.

Dental Training in Colorado

Colorado has one nationally accredited school of dentistry located at the University of Colorado (CU). The University of Colorado School of Dentistry was authorized in 1922 by an amendment to the State constitution. The School of Dentistry offers a four-year dental program leading to the Doctor of Dental Surgery degree. Out of nearly 1000 applicants, the CU School of Dentistry presently enrolls 36 dental students (nearly half are women) annually, with preference being given to in-state residents. Tuition for instate residents is between \$7,000 and \$8,000, whereas for non-residents it is between \$25-26,000. Additional fees for books, instrument kits, and other required fees differ annually, with first year fees as high as \$9500, and fourth year as low as \$2000.

The CU dental program through its Advanced Clinical Training and Service (ACTS) program, allows dental students to provide the equivalent of one academic year of direct dental services to underserved communities in Colorado. Two specific rotations are required—one in the “Integrated Care Clinics” and the other in a rural dental practice. The Integrated Care Clinics, located in Denver, focus on treatment of older adults, persons with HIV disease, or individuals who are mentally/physically challenged. The student's rural experience may be in a private dental office, a community/migrant health center, or through the network of dentists participating in the Colorado Migrant Health Program each summer.

The CU School of Dentistry also offers a two-year baccalaureate degree in Dental Hygiene and enrolls 20 dental hygiene students annually, for students who already have completed two years of school from an accredited university, college, junior or community college. In addition, there are three other dental hygiene schools and six dental assisting programs in Colorado, at TH Pickens Tech Center, the Emily Griffith Opportunity School, and through the community college system (Pikes Peak CC, CC of Denver, Pueblo CC, Front Range CC, Colorado Northwestern CC).

Colorado Requirements for Licensure

To practice dentistry legally in Colorado one must have an active license or meet an exemption in the Colorado Dental Practice Law. Colorado licenses newly graduated dentists and dentists that have been actively practicing in other states or foreign countries and are moving to Colorado. Colorado is one of the few states that will, under certain circumstances, admit dentists to practice by virtue of their credentials. Dental hygienists in Colorado must also be licensed as specified in the Colorado Dental Practice Act.

Active, Inactive, and Retired Status

An active license requires an individual to have malpractice insurance or its equivalent. Persons who do not have Colorado malpractice insurance but believe they will have the insurance at a later date, such as a graduating student, usually choose inactive status. (Note: hygienists do not have inactive status.) Retired status prohibits the individual to earn income as a dentist or dental hygienist administrator or consultant, or perform any activity that is considered practicing dentistry or dental hygiene. An individual in retired status may provide services on a voluntary basis to the indigent, if such services are provided on a limited basis and no fee is charged. Under such circumstances, a dentist/dental hygienist has immunity for voluntary care provided.

Earnings from Dental Practice

What a dentist earns is a function of a complex set of variables: type of practice (self-employed or part of a provider network); location of practice, size of practice (staffing, equipment, facility, etc); whether patients are fee for service or covered by insurance; cost of malpractice insurance; cost of increased OSHA (Office of Safety & Health Administration) regulation, etc. A relatively large proportion of dentists are self-employed, and like other business owners, these dentists must provide their own health insurance, life insurance, and retirement benefits.

According to the last US Census (1990), the average income for dentists (both full or part-time) was \$64,905. According to the American Dental Association, the median net income of dentists in private practice was about \$120,000 a year in 1995. Median net income for those in specialty practice was about \$175,000 a year, and for those in general practice, about \$109,000 a year. Dentists in the beginning years of their practice often earn less, while those in mid-careers earn more.¹⁰ These figures are probably conservative given their age and the number of factors influencing a dentist's earnings.


Geographic location, employment setting, education and experience affect earnings of dental hygienists. Those hygienists who work in private dental offices may be paid on an hourly, daily, salary, or commission basis. According to the American Dental Association, experienced dental hygienists who worked 32 hours a week or more in a private practice averaged about \$759 a week in 1995. Benefits vary substantially by practice setting, and may be contingent upon full-time employment. Dental hygienists who work for school systems, public health agencies, the Federal Government, or State agencies usually have substantial benefits. According to the American Dental Association, experienced dental assistants who worked 32 hours a week or more in a private practice averaged \$406 a week in 1995.¹¹


A BRIEF OVERVIEW OF COLORADO DENTAL INSURANCE


Dental insurance plans differ by the services they cover, the amount they pay for dental procedures, and whether or not the patient can decide which dentist to see in order to get the most appropriate care in the most efficient manner.

Dental Insurance Plans

Common options for dental insurance plans are **direct-reimbursement**, **Preferred Provider Organizations**, and **capitated plans**. However, there are variations across all of these options.

 According to the American Dental Association, a **direct reimbursement plan** is self-funded and offers the insured the freedom to choose the dentist and the treatment. The plan sponsor (often an employer) reimburses the insured's dental claims up to a fixed amount. (Direct reimbursement levels of coverage are based on the cost of the treatment, not on the type of treatment.) The reimbursement may be graduated, so that the insurer pays for a set percentage for the first portion of the cost, a lesser percentage for the second block of cost, an even lesser percentage of the next block of cost, etc.

 Some plans restrict freedom of dentist selection by limiting the insured to a specified network of dentists. In a **Preferred Provider Organization (PPO)** participating dentists agree to discount their fees as a financial incentive for patients to select their particular practices. Depending on the PPO, the insured has the ability to receive reimbursement for some portion of dental costs if a dentist outside of the PPO provides the service.

 A third type of plan is a "**capitated**" program. This type of program pays contracted dentists a fixed amount per enrolled family or patient. In return, the dentists agree to provide a specific level of treatment or scope of benefits to the patients. Both PPO's and capitated programs may require the insured to pay a monthly premium and/or a co-payment before receiving service.

Delta Dental is Colorado's largest dental benefits carrier. Delta provides dental benefits for over 750,000 persons in Colorado, has over 90 percent of Colorado dentists in its network, and offers four different types of plans:

- **Traditional fee-for-service:** A person may choose any dentist for services. (The highest benefits payable under the plan are for services performed by a dentist in a specified network.)
- **Preferred provider option:** A mid-priced alternative to a traditional fee-for-service plan. (The highest benefits payable under the plan are services performed by a dentist in a specified network who has agreed to accept a reduced fee schedule.)
- **Closed panel option:** Benefits are payable *only* for services performed by a dentist in a specified network.
- **Managed care plan:** Controls costs by assigning members to a specific Delta dentist. (No benefits are available under this plan for services performed by other than the assigned dentist.)

Dental Benefit Coverage

While insurance plans have different benefit packages and provide coverage for different services, the American Dental Association (ADA) recommends that the following treatment categories that should be covered in a dental benefits plan.



Preventive, Diagnostic and Emergency Services

Preventive dentistry refers to the dental procedures that prevent the occurrence of dental disease. Diagnostic services are those that detect the presence or absence of disease. Such procedures should include, for example, oral examinations, prophylaxes (cleanings), X-rays, fluoride applications, sealants and space maintainers, and this category of treatment should be covered at 100 percent with no deductibles or copayments.



Routine Dental Care

Routine dental care covers the broad range of dental treatments, including, for example, routine restorative, routine oral surgery, routine periodontic, root canal therapy and some orthodontic and prosthodontic procedures. It is recommended that insurance coverage for this category of treatment should be 80 percent of actual costs.



Complex Dental Care

This category of care generally entails more involved or extensive dental procedures such as complex oral surgery. It is recommended that “patient participation in the cost of complex care should motivate patients to adequately maintain their oral health,” and that coverage for this category of treatment is frequently in the 50 to 80 percent range.¹²

OVERVIEW: CHILDREN’S DENTAL HEALTH SAFETY NET

Nationally, the Medicaid program, with its Baby Care Kids Care (BCKC) program and Early and Periodic Screening, Diagnosis and Treatment (EPSDT) programs, and the state Children’s Health Insurance Program (CHIP) provide coverage for a large percent of low-income children and serve as the major funding sources for dental public health safety net providers.

Since Colorado does not provide a dental benefit in its CHIP program, the dental safety net for low-income children is limited to the Medicaid program and a patchwork quilt of public and private programs that serve a limited number of children.

What happens to children with dental insurance and those without? Rosie and Laura’s stories are fiction, but they are based on the experiences of many Colorado children and families. Children without dental insurance rely on the dental health safety net for their care.

Rosie and Laura: A Tale of Two Children

Rosie had her first toothbrush at two. Her parents, employed at jobs with dental benefits, got a referral to a pediatric dentist for Rosie, and she made her first trip to the dentist at three when she had all her baby teeth. As she grew, she got her fluoride and sealant treatments and twice yearly checkups. Making the appointments was easy—a telephone call. Her parents’ employer paid all of the preventive costs. When she chipped a tooth after an energetic soccer game, her parents’ questions were answered immediately and her tooth fixed within a week. Every time she went to the dentist, someone was there to critique her flossing technique and provide information and a new toothbrush. Now in high school, she still sees the dentist twice a year for check ups and doesn’t have a single cavity.

Laura also had a toothbrush at two, but her first encounter with the dental system was at age five in the emergency room for an abscessed tooth. (Her parents were working part-time at jobs with no dental insurance benefits. They hadn’t been to a dentist in years and were not aware of the importance of early dental care for Laura.) Laura’s parents could not afford the restorative treatment, so three of Laura’s baby teeth were pulled. No fluoride or sealants were provided in the emergency room. Although the hospital gave Laura’s parents a referral to a dentist for preventive care, that dentist was not taking new Medicaid patients. The referral he made was to a dentist on the other side of the county. Laura’s parents kept missing appointments. By the time Laura went in for her first fluoride treatment and sealant, she had active decay in her new permanent teeth. Now in high school, Laura’s mouth embarrasses her, with its crooked, stained, and missing teeth.



Medicaid

Historically, states have relied on the Medicaid program to provide a comprehensive set of dental services to eligible children under age 21.¹³ This includes emergency, preventive, and therapeutic services, which if left untreated, may become acute dental problems or may cause irreversible damage to the teeth or supporting structures. While this program holds great promise for improving the oral health of many low-income and minority children, Medicaid historically has not reached its potential to serve the dental needs of children.¹⁴

In 1997, only 17.3 percent of Colorado’s Medicaid-eligible children received dental services. As a comparison, over half of children (55 %) with dental insurance received dental services.¹⁵ (Figure 2) However, since that time, the percentage of children receiving services has increased. In Fiscal Year 1998-99, there were approximately 205,000 children enrolled in the program, and 23% of children utilized dental services. While this is not a significant increase in children, especially when compared with commercial insurance participation rates, it does mark some improvements in utilization and access.

From July 1, 1999 to December 31, 1999, the Colorado Medicaid program provided dental services to approximately 32,000 and spent nearly \$250 per child. Over the past several years, the number of Medicaid-eligible children in Colorado has been declining (most likely due to welfare reform and the booming economy). Yet, during this period, the number and types of dental services that children have received has increased, which may be due to the fact that children, who are accessing services, are requiring more complex and expensive dental services. This rise in services may also be attributed to a “pent up” demand for services.¹⁶ That is, many of these children may not have had previous access to care, and therefore, now that they are able to access care, they are in need of more extensive, higher cost emergency and restorative procedures, than if they had been accessing regular preventive care throughout their lives.

According to the Colorado Department of Public Health and Environment’s Oral Health Officer, the primary reason for this low utilization of Medicaid dental services is a lack of dental providers throughout the state.¹⁷ For example, as of June 1998, there were 2727 active licensed dentists in Colorado. A little more than one third (38.3%) were enrolled as Medicaid providers. Of those enrolled Medicaid providers, only half actually are providing services to children and adolescents who received Medicaid. (Figure 3)

The State Children’s Health Insurance Program

The federal state Children’s Health Insurance Program, (CHIP) – the largest child health insurance program since Medicaid – does not require states to include dental in their benefit packages. CHIP programs may be designed as an expansion of Medicaid or a completely separate program. If a state decides to design its CHIP program as a Medicaid expansion, it must provide the same benefits that are included in the standard Medicaid package. In CHIP programs that are separate from Medicaid, there is no specified benefit package. There are, however, two common categories of dental services that most states have included. The first tier of care

Which Kids Receive Dental Services

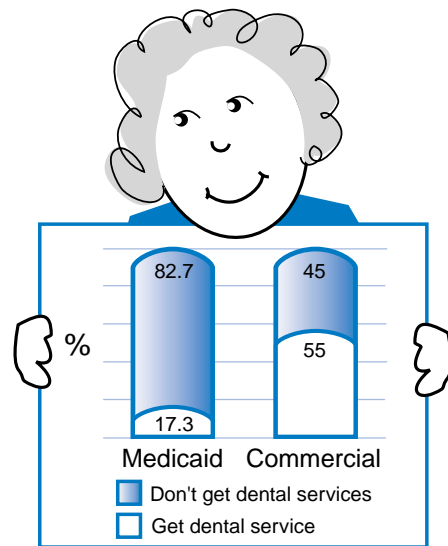


Figure 2: Source: CDPHE, Oral Health Program

Medicaid Dentists in Colorado:1998

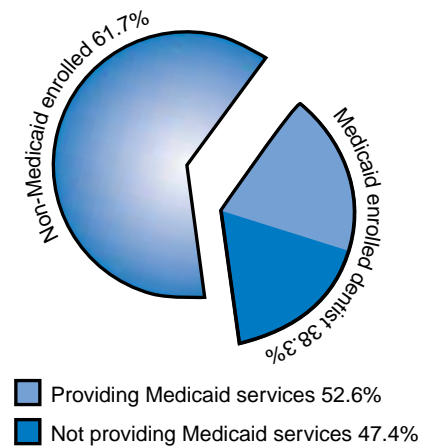


Figure 3: Source: CDPHE, Office of Oral Health

includes preventive, diagnostic, basic, and restorative services and may include topical fluoride treatment, X-rays, fillings, sealants, and acute emergency dental services. The second tier of care is advanced treatment that could include crowns, bridges and surgery such as root canals. Most state CHIP plans require prior medical approval for orthodontics or provide them for children with special health care needs.¹⁸



No Dental Coverage: Hard Choices Because the Colorado CHP+ program does not include a dental benefit, Colorado families who are “too rich” for Medicaid and too poor to afford dental insurance must depend on fee-for-service or charity care – services which have limited availability or long waiting lists. Fee-for-service means cash—often demanding a choice between regular preventive care and other necessities such as food or new shoes. Choosing groceries over checkups means that potential problems go untreated until they become acute and expensive problems.

Colorado’s CHIP program, the Child Health Plan Plus (CHP+), was designed as a separate program from Medicaid, and was modeled after other commercial insurance plans. At the time of this publication, Colorado has the distinction of being the only state in the nation that doesn’t offer a dental benefit in its CHIP plan.

Other Providers of Dental Care for Low-income Children

Many low-income children in Colorado must rely on a small but dedicated group of providers willing to offer services. Colorado’s safety net of providers is scattered around the state. It is a hodge-podge of programs maintained by a variety of funding streams: private, nonprofit providers; state and private partnerships; donations by private for profit providers; and state and federal partnerships. Pieces of the safety net include:

Community Health Centers

Community Health Centers offer a wide range of health care services to low-income families and children. The services provided at community health centers vary, based on community needs and availability. While not all of the centers provide dental services, there are at least nine clinics (of 87 total clinic sites) that provide dental services. While services are available, there are often waiting lists and not enough services to meet the extensive need in each community.

University of Colorado School of Dentistry

The University of Colorado School of Dentistry provides free or reduced cost dental care to low-income adults and children through its Advanced Clinical Training and Service (ACTS) program and its school training clinic. These two venues enable the dental school and its students give back to the community by providing services to patients with access and income barriers in return for gaining valuable clinical training and experience working with these populations.

The Children’s Hospital

The Children’s Hospital dental clinic is devoted to and uniquely experienced to meet the oral health care and surgery needs of healthy and medically compromised children from infancy through adolescence. The dentists are recognized for their comprehensive post-dental school training and education in anesthesiology, pediatric medicine, emergency care, and child growth and development. Comprehensive services, including preventive, diagnostic, emergency, routine and complex services, are provided to all children, without discriminating on ability to pay.

KIND

KIND (Kids In Need of Dentistry) provides low-cost dental care to children up to age 18, with families who are working, have no dental insurance, and whose family’s income is above the allowable limits for Medicaid and below 185% of the Federal Poverty Level. KIND provides services to children statewide through the following programs and clinics.

- KIND operates five dental clinics throughout metro Denver.
- KIND, in partnership with the Colorado Department of Public Health and Environment and HealthSET, operates a community-based dental sealant program, called *Chopper Topper*. The program provides sealants to second graders in the Denver Metro Area using portable dental equipment and health education and outreach.
- With the support of the Anthem Blue Cross and Blue Shield Foundation, KIND has created a mobile dental program, called *Miles for Smiles*, which provides comprehensive dental services and dental education to low-income families in communities in the Western and Central Mountains of Colorado.

Marillac Clinic

The Marillac Clinic provides affordable, quality dental services (as well as other health services) to eligible low-income residents of Mesa County, who are at or below 150% of the Federal Poverty Level, who are not covered by commercial insurance. In addition, in February 2000, Marillac’s dental clinic began accepting Medicaid patients. The clinic provides basic preventive and restorative services, including cleanings, examinations, x-rays, fillings, and extractions. Patient fees are based on a sliding fee scale.

Other programs

- Primarily on the Western Slope, there is a state and public partnership of weekly school fluoride mouth rinse programs to elementary schools in areas without optimal levels of fluoride in community drinking water.
- The Oral Health Program in the Colorado Department of Public Health and Environment (CDPHE) provides leadership in oral health around the state and technical assistance to community water systems to fluoridate drinking water.
- The federally funded Migrant Education Program contracts with Farmworker Health Services to provide health and dental services to over 20,000 school-age (K-12) farmworker children in fifteen different Colorado schools each summer.
- Other private or non-profit dental clinics include: *All Kids Dental Clinic* (serving Eagle, Garfield, Moffat, Mesa, Montrose, Pitkin, Rio Blanco and counties); *Colorado Foundation of Dentistry for the Handicapped* (metro Denver); *Dental Aid* (clinics in Boulder, Longmont and Lafayette); *Fort Collins Children’s Clinic* (Ft. Collins); *Howard Dental Clinic* (metro Denver); *Inner City Health Clinic* (located in Denver, but services the state); *Mercy Children’s Dental Clinic* (Durango); *McKee Medical and Dental Program* (Loveland); *Montrose Memorial Dental Clinic* (Montrose); *Samaritan House* (Denver); *Small Smiles* (El Paso County); *Smile High* (metro Denver); *Skyline Dental Clinic* (Grand Junction). Each clinic has different eligibility requirements and target populations, however, these clinics provide care to a wide range of individuals. This may include low-income children, those who are mentally and physically challenged, and those who are HIV positive. However, most of these clinics do not meet the need for services in their communities and have long waiting lists.
- In addition to clinics, private dental professionals provide many hours and dollars of free care to low-income children in their communities, either in their own dental practices or in conjunction with community organizations. Many dentists prefer providing care in this manner to seeing Medicaid children, because of the complicated administrative processes and bureaucratic headaches associated. However, dentists seldom get any recognition for this type of care and it often goes unnoticed by the general public.

Colorado Dental Synopsis



- # school children (K-12): 673,438
- % children (K-12) on the free and reduced school lunch program: 21.5%, who would be eligible for CHP+
- # dental schools: 1(entering class size limited to 35)
- # dental hygiene programs: 4
- # community health centers with dental clinics: 9
- # district, county, or local health departments with a dental program: 2
- # licensed dentists: 2,563
- # licensed dental hygienists: 2,920
- % private dentists participating in the Medicaid Dental Program: 15%
- # National Health Service Corp dentist: 1
- # student loan repayment hygienist: 1

OBSTACLES TO ACCESSING AND PROVIDING CARE – HOLES IN THE DENTAL HEALTH SAFETY NET.

While this appears to be a substantial list of providers, these programs do not even begin to adequately meet the demand for services. If Colorado is to make headway in expanding services to low-income children there are several systemic barriers that must be addressed.

- **Low reimbursements to dentists.** Dental policy experts believe that one of the largest barriers to provider participation in publicly funded programs is the low reimbursement rate to dentists, which average \$0.65 for every \$1.00 in charges. This may be due to the high overhead associated with dental practices and differences in the dental delivery system, which cost more than traditional medical practices. The Colorado Dental Association (CDA) recommends that, in order to see increases in provider participation, reimbursement rates be raised to a minimum of 80% of the American Dental Association mean for the Rocky Mountain Region (which is 80% of the average costs of all dentists' charges for services in this region). In Colorado, the Medicaid program currently reimburses dentists at 68% of the ADA mean.
- **Administrative barriers.** Another major reason that dentists cite for nonparticipation in publicly funded programs are complicated administrative processes. These include complex enrollment forms, nonstandard billing requirements, complicated eligibility determination, delayed reimbursement, or burdensome preauthorization requirements.
- **State regulations.** Some health and dental policy experts believe that state laws and regulations that limit the scope of practice of dental hygienists or restrict licensure requirements ultimately limit the number of providers within the state who are willing to provide low cost care to low-income populations.
- **Geographical barriers and regional shortages.** Dentists are not equally distributed throughout Colorado. In June 1999, eleven counties had no licensed dentists whatsoever and twenty-four counties had no dentists who actively accept new children covered by Medicaid as patients – an approximate ratio of about 1 dentist to 900 low-income children. These numbers do not even address the scarcity of pediatric dentists trained to work with young children.
- **Personal, financial, and cultural barriers.** There are many barriers that discourage dentists from serving low-income populations and patients from accessing care. Barriers in this category include poor health behaviors and compliance; not accessing Medicaid because of a perceived “stigma” attached to the receipt of public benefits; missed appointments; transportation issues; clinic hours of operation may cause difficulties with coordinating transportation, child care, missed work; cultural biases about oral health care; lack of comfort level with dental care; lack of knowledge about health issues; unfamiliarity with concept of health insurance; language barriers, etc.
- **Misconception and misunderstanding of dental health and the dental delivery system.** Because oral health services are rarely life threatening, people perceive dental care as elective and don't understand the need to prioritize dental care because of the potential long-term negative consequences it can have on overall health. As a result, individuals and policymakers alike, continue to separate and exclude oral health from general health, rather than including dental services and coordinating with medical care. In addition, policymakers need to understand differences in the dental and medical delivery systems and understand how to integrate care. Once they accomplish this, their efforts to coordinate care by treating dental differently will succeed and they may begin to create a system that can overcome the historical barriers to children's dental health.

COLORADO INITIATIVES TO IMPROVE THE SYSTEM OF CHILDREN'S DENTAL HEALTH

In Colorado there are several new initiatives at the state and local level that could significantly improve the dental health of children in the near future:

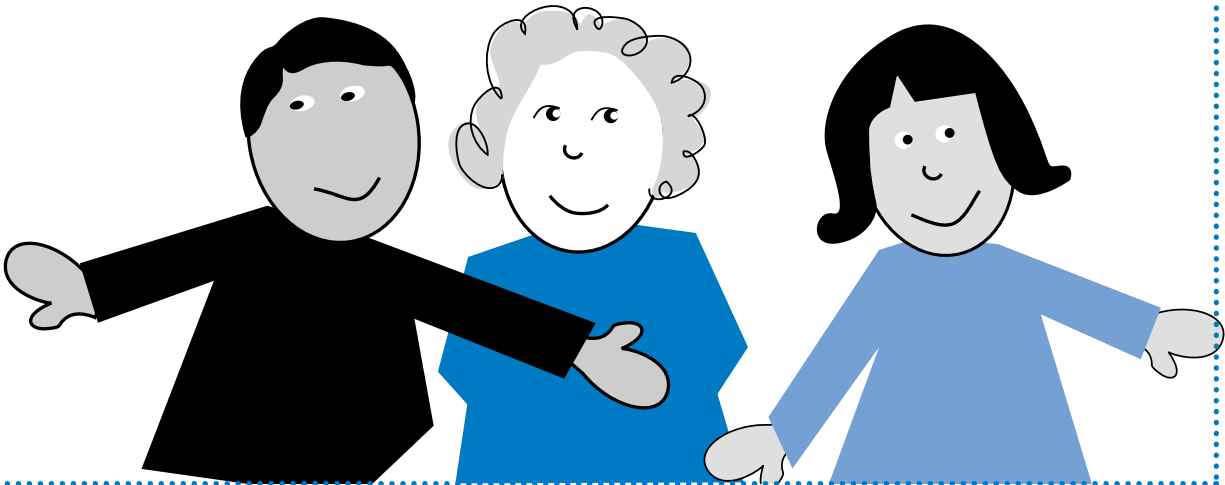
- ***The Governor.*** Governor Owens has been very vocal about the need to improve the dental public health safety net, while cognizant of the complexities inherent in the current system. As a result, the Governor has taken several actions to address this problem. First, he included in his budget a request from his department of Health Care Policy and Financing (HCP&F) to increase the Medicaid reimbursement rate for dentists. Secondly, he has supported efforts to include a dental benefit in CHP+ using tobacco settlement dollars. Finally, the Governor has asked the executive directors of his two health departments to convene and co-chair, a Commission on Children's Dental Health to study the complexities of the system and make recommendations on how to create a more effective system of care.
- ***Colorado Department of Public Health and Environment (CDPHE).*** CDPHE is leading efforts across the state to improve the oral health status of Coloradans, by partnering with private organizations to deliver services, assisting communities to fluoridate community water systems, and collecting data statewide to better understand the dental needs of low-income families in order to find solutions and programs to address these needs.
- ***Colorado Department of Health Care Policy and Financing (CDHCPF).*** CDHCPF is looking into finding new strategies to increase provider participation in the Medicaid funding by increasing reimbursement and looking for ways to reduce administrative barriers.
- ***Legislative advocacy.*** Health organizations and advocacy groups, including the Colorado Children's Campaign, understand the current crisis of oral health for low-income children in the state of Colorado and are actively championing the rights of children in the state. Their efforts include educating providers and legislators on the need for dental services and lobbying the General Assembly to include a dental benefit in CHP+ and use funds from the tobacco settlement to finance this benefit.
- ***Colorado Dental Association (CDA).*** The CDA is working with its members to improve provider participation in publicly funded programs. The CDA is working with the legislature and CDHCPF to increase reimbursement rates in Medicaid and is partnering with other children's health and dental organizations to find ways to successfully implement a dental benefit in CHP+.
- ***University of Colorado School of Dentistry.*** The CU-School of Dentistry is working in partnership in the community to continue providing dental services to low-income individuals, through its clinic and ACTS program, in the community.
- ***Colorado Dental Hygienists Association (CDHA).*** The CDHA works in conjunction with other health and dental organizations to expand access to dental care for low-income children. In metro Denver, the CDHA is involved in providing volunteer dental care to low-income children through the KIND Chopper Topper program. In rural Colorado, the CDHA is involved in providing care to low-income children's programs, such as Head Start and school programs, by providing preventive oral health services, including sealant placements; oral hygiene instruction; and appropriate referrals to licensed dentists.
- ***Collaborative Children's Dental Health Consortium.*** A new collaborative effort between five leading dental and children's health organizations – the American Academy of Pediatrics, the Colorado Dental Association, the American Academy of Pediatric Dentists, The Children's Hospital, and the University of Colorado School of Dentistry – is underway in an effort to implement a dental benefit in the CHP+ program. The goal is to approve the inclusion of a dental benefit into CHP+, finance the benefit using tobacco settlement dollars, and research how to develop an administrative structure that will ensure the delivery of accessible services to CHP+ enrolled children.
- ***Media coverage.*** Over the past year, the media has played an increasingly important role in raising public awareness about the dental health crisis in Colorado. The Denver Post, Rocky Mountain News, and Colorado Parent Magazine, among other local and statewide papers, have written numerous articles to educate parents, caregivers, policymakers, and the general public on good oral health habits, the need to access regular dental care, and the lack of available services to many populations throughout the state.

- **Anthem Blue Cross and Blue Shield's Shining Smiles Initiative.** Now in its second year, the Shining Smiles Initiative has made significant strides in bringing public attention to the issue of dental health and the oral health crisis for low-income children. The goal of this initiative is to improve the oral health of Colorado's children by funding and providing direct services through the Miles for Smiles mobile dental clinic and other program; informing public policy; increasing public awareness and advocacy; changing behaviors; research and analysis of the issues; enhanced public relations; and giving products and services to families and children to help improve dental health.

CONCLUSION: COLORADO'S CHILDREN NEED ACCESSIBLE AND AFFORDABLE DENTAL CARE

The system of dental care for children in Colorado lacks many of the key components necessary to expand to serve more children who are in desperate need of services. Too many children are seeing doctors in the emergency room when they have an abscessed tooth, instead of seeing a dental hygienist or dentist who can show them how to care for their teeth or apply sealants that would prevent tooth decay in the first place. Too many children are spending sleepless nights in pain with bloody mouths. And too many children are suffering from poor appearance and low-self esteem resulting from the pain and infection in their mouths. This is not acceptable!

We must look for ways to increase prevention, to address the barriers that have been outlined in this paper, to improve the dental care delivery system in order to improve the health of low-income children. The seeds have been planted. But there is still a need for continued momentum to be generated to truly make a difference. This is beginning to take place through the Governor's acceptance and awareness of the need and the leadership of his two health departments (Department of Public Health and Environment and Department of Health Care Policy & Financing). In order to gain further momentum, Colorado needs a more concerted effort by the legislature to establish and fund a dental benefit in CHP+; public recognition of the public health crisis related to children's oral health; the continued support and vision from the foundation community; and our collective good will to improve the oral health and lives of the children of Colorado.



*References provided upon request.
Contact Carmen Fujinami at 303-831-2810.*



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