Dental Services Study- HB 1454 Health Services Committee

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1. Medicaid dental expenditures and utilization increased by 62% from the 2007-2009 biennium to the 2009-2011 biennium (ND Department of Human Services). The current dental Medicaid budget is 2.3 times larger than 8 years ago, reflecting increased numbers of patients served. This significant increase could not have been possible with a shortage of dentists. Medicaid reforms work, not only as evidenced in North Dakota but also by the many dramatic increases in utilization and participation by dentists in other states where funding and regulatory policies are improved.

2. The net number of licensed dentists in the state has been increasing over the last 5 years. (ND State Board of Dental Examiners) The current numbers of new licensees every quarter is also stunning (see BODE numbers). Anecdotally it appears half of these new dentists are from out-of-state and are coming because of the perceived prosperity in our state. Could anyone realistically say there is a "shortage of dentists" in our state, based on these numbers?

3. Overall ND dentist/population ratio is "adequate"(UND Center for Rural Health, 2011 DentaQuest Grant presentation). Problem areas include western part of state where oil boom is occurring as well as counties that include the 4 American Indian reservations. The dental Health Professions Shortage Areas (HPSA's) are primarily clustered around these areas. Dental HPSA data is only distantly

related to the % of children receiving Medicaid visits and has been found to be flawed as a measure of workforce according to a HRSA-commissioned study by the UNC Shep Center in 2005.

4. There are now twice as many North Dakota students enrolled in dental schools around the country than 10 years ago (State Health Department).

5. 10 of the 14 ND Head Start programs report minimal problems getting needed exams and treatment completed in the school year for their children. Challenges are focused primarily in the 4 American Indian Head Start programs.

6. All 4 ND Indian Health Service Dental Directors in 2010, as a part of a Head Start Dental Home Initiative survey, indicated no need or desire for mid-level dental practitioners in their IHS clinics. While some of the largest unmet dental needs are on our American Indian reservations, staff Indian Health Service dentists admit that IHS dentistry is dysfunctional and there are limited resources to incentivize dentists to efficiently and productively complete treatment. Before proposing new mid-level providers to work in these populations, the IHS system should be reformed to make it work.

7. North Dakota leads the nation in the number of dental school applicants from the state as a percentage of the number of dentists in the state, and ND is second in the nation in the number of dental school applicants as a percentage of population. ("Dental School Applicants by State Compared to Population and Dentist Workforce Distribution", Mentasti and Thibodeau, Journal of Dental Education, Nov 2008) Given the fact that there is no dental school in the state, these numbers are impressive and project a positive future pipeline for new

dentists.

8. There has been a dramatic increase in volunteerism, collaboration and partnerships in improving oral health in the state, which are models for the nation.

9. Statistics that define access by comparing North Dakota to national averages based on numbers of visits for Medicaid kids do not take into consideration all of the many barriers to care. The following is a list of those potential barriers as provided the American Academy of Pediatric Dentistry's Pediatric Oral Health Research and Policy Center Brief (see attached):

A. Internal family factors:

1. Parental belief systems and practices;
2. child's temperament (e.g. resistance to tooth brushing);
3. low parental literacy and an inability to adequately understand current educational materials;
4. lack of parental knowledge about optimal oral health, and uncertainty about prevention;
5. financial difficulties which make it challenging to prioritize dental care; dental anxiety and phobias;
6. perceived lack of access to affordable sources of care;
7. home oral care activities perceived as time consuming and low-priority when compared to other responsibilities.

B. External factors:

1. Difficulty locating Medicaid and CHIP dental providers;
2. lack of health and dental insurance;
3. limited hours of dental office and clinic operations; and inability to schedule appointments that do not conflict with workplace demands and other parental responsibilities;
4. lack of transportation and geographic distance to dental providers;
5. having to miss school and/or taking time off of work for dental appointments;
6. the complexity of navigating the health care system; and
7. socioeconomic or cultural discrimination.

Commentary:

The study commissioned by HB 1454 attempts to study access to dental care in a variety of areas...."dental provider shortages, including feasibility of utilizing midlevel providers, whether the use of incentives for dental service providers to locate in underserved areas in the state may improve access, and whether the state's medical assistance reimbursement rates impact access to dental services." Those of us involved in dentistry in North Dakota over the last 10 years, whether it be public health or private practice, know that many of the questions being asked here have already been studied many times through State Oral Health Program, State Oral Health Coalition, NDDA, and DentaQuest grant

activities. The evidence seems obvious that the number of dentists in the state is exploding, that a record number of dentists are doing Medicaid dentistry, and that public-private partnerships have made a measureable difference. It also seems obvious that the elephant in the room is the issue of midlevel practitioners. It also seems obvious that the Pew Foundation in DC has decided to make that issue a reality in North Dakota. Speaking for myself, I would urge caution in making the Workforce study (sponsored by the Bremer and Pew Foundations) referenced in the background information for this legislative study the centerpiece for any move to dramatically change the way dentistry is licensed and provided in ND. Questions you might want to ask?

1. Why was Pew, after announcing in December of 2011, that they were going to do a workforce study in ND and assuring that they intended to be totally transparent in their activities and to work with the existing DentaQuest series of stakeholder meetings, never heard from again and never communicated with the State Oral Health Director?
2. Why was the Workforce study published with a date of August 2012 and no one in the state was able to see it, including the State Oral Health Director, until June of this year?
3. Why did Pew do media spots in ND criticizing access to care in ND without consulting anyone in ND, including the State Oral Health Director?
4. Who would have a better idea about solutions to dental access in North Dakota than a partnership of ND people who work in all parts of the dental delivery system…government, private, and non-profit?

5. Could it be that North Dakota might have unique needs that might not fit a global midlevel solution as defined by Pew?

Solutions:

1. Investigate Expanded Function Dental Assistants (EFDA's) as a way to augment the workforce not only in the provision of restorative dentistry but also as providers able to go out into low-income or rural communities to provide case management to eliminate barriers to care.
2. Expand public and private support of the state's dental public health clinics targeted to areas of greatest need.
3. Continue to develop market-based reform of dental Medicaid to include adequate reimbursement based more precisely on evidence from the many other states that have made similar reforms.
4. Develop an action plan supported by a partnership of all groups interested in oral public health to maintain the viability and services of our State Oral Health Program.
5. Improve the communication between state government oral health policy-makers and organized dental groups in the state to produce more effective programs.

The Use of Case Management to Improve Dental Health in High Risk Populations

Executive Summary

Untreated tooth decay affects more children than any other chronic infectious disease in the United States, leading to pain and suffering, and even death[1], despite being a largely preventable disease. Minority and socioeconomically disadvantaged children are especially hard-hit; they have higher rates of tooth decay and greater difficulty accessing dental care. The ravages of pediatric dental disease are especially disconcerting since there are resources available to prevent and treat dental diseases in this at-risk population. Informing caregivers of the existence of dental health resources is the crux of this public health crisis. Dental care case management, and establishment of a dental home, are the answers.

Dental care is readily available from dentists who accept Medicaid and CHIP; unfortunately low-income parents facing a pediatric dental crisis may be hobbled by health illiteracy, as well as limited funds for dental care and few personal resources to access care when it is available. Thus, only 38% of Medicaid eligible children received a dental service in 2008, well below the Healthy People 2010 goal.[2] Although over 70% of AAPD members accept public insurance[3], only 5.4% of general practitioners accept public insurance.[4] Dentists who desire to provide care to publically insured patients are discouraged by low reimbursement rates and administrative burdens. The combination of patient and provider barriers leads to low utilization of dental care options by publically insured pediatric patients, higher dental disease rates and treatment costs. Only by overcoming barriers to care will these children receive cost-effective preventive as well as therapeutic care.

Barriers to care can be breached by case management, which is a collaborative process of assessment, planning, facilitation, care coordination, valuation and advocacy for options[5] that has been shown to be a cost-effective tool to increase dental health in the publically insured population. Motivational interviewing (MI), a key component of case management, has proved to be effective in improving not only dental outcomes, but health outcomes in any population; when used in conjunction with other services (fluoride, Xylitol, and/or treatment of disease) MI has been found to reduce cavity prevalence by 62%.[6] The potential for such a radical reduction in cavity prevalence could result in substantial cost savings.

Individualized case management services allow for differences in physical, psychological and cultural makeup and addresses community-specific barriers to care. Case management is not only the customization of available resources to specific patient and provider needs, but the communication of, and explanation and support for, good oral health practices. Comprehensive case management has been found to increase publically insured beneficiaries' use of services and improve oral health literacy and treatment compliance. Ideally, use of case management leads to the patient adoption of a dental home. A dental home is a primary dental care provider that is accessible, continuous, comprehensive, family centered, coordinated, compassionate, and culturally effective. [7]

In sum, case management may be a cost-effective service that has the potential to reduce costs and improve oral health.

(Endnotes)

[1] *Centers for Disease Control and Prevention. Health disparities experienced by racial/ethnic minority populations. MMWR 2004;53:755.*
[2] *National Center for Health Statistics. Health, United States, 2011: With Special Feature on Socioeconomic Status and Health. Hyattsville, MD. 2012.*
[3] *American Academy of Pediatric Dentistry. Member Needs Assessment, Winter, 2009.*
[4] *American Dental Association. 2012 Survey of Dental Practice Pediatric Dentists in Private Practice Characteristics Report. 2012*
[5] *Case Management Society of America. Standards of practice for case management, revised 2010.*
[6] *Hirsch, G, Edelstein, B, Frosh, M, and Anselmo, T. A Simulation Model for Designing Effective Interventions in Early Childhood Caries. CDC - Preventing Chronic Disease: Volume 9, 2012: 11_0219.*
[7] *American Academy of Pediatric Dentistry. Policy on the dental home. Pediatr Dennt 2012;34(6) (special issue): 24.*

Introduction

Poor oral health in children is a major public health problem in America. "Despite the considerable progress in pediatric oral health care achieved in recent years, tooth decay remains one of the most preventable common chronic diseases of childhood. Tooth decay causes significant pain, loss of school days and may lead to infections and even death."[1] Left untreated, dental caries can result in a broad range of functional impairments that have far-reaching implications for growth, development, school performance, and peer relationships. However, the public and even health care professionals remain, in large part, unaware of the basic risk factors and preventive approaches for many oral diseases, as well as the connection between good oral health and overall health and well-being.[2]

Children at higher risk of developing dental caries (tooth decay) include:

- Children with demonstrable caries, dental plaque, and enamel demineralization;
- Children of mothers with a high caries rate, especially with untreated caries;
- Children who sleep with a bottle containing anything other than water, or who breastfeed throughout the night (at-will nursing);
- Children in families with low socioeconomic status;
- Children with special health care needs.

Children at increased risk of developing caries often lack access to dental care and may not have good preventive home care practices. Additionally, these children may reside in families that may have few resources and face many barriers accessing oral health care and information. Case management can help these families utilize available dental providers and reduce caries risk-factors. Case management can also support the goals of health care and dental benefit providers (including state Medicaid and CHIP programs) through improving treatment plan compliance and reducing care costs. Case management services that are truly patient-driven:

- Emphasize partnership between providers and clients patients (and their families);
- Ensure the family is linked with appropriate community services;
- Improve the family's oral health knowledge and health literacy; and
- Utilize communication strategies that assist families in identifying and achieving their own goals.[3]

Oral Health Disparities

Significant disparities exist in oral health on the basis of socioeconomic status. Children from low-income families suffer twice as much dental caries as children from more affluent families.[2] In one study, approximately one half of those in lower income groups had dental caries compared to only one third of children from families with incomes ≧200 percent of the federal poverty level (FPL). [4] Utilization of dental services is also diminished among low income families.[5] Among 3-5-year-olds living in poverty, approximately one in four had untreated dental decay compared to 10.5 percent among those living above the poverty level.[6] Further, only 38 percent of children covered by Medicaid received a dental service in 2008, well below the Healthy People 2010 goal of 56 percent of children having a dental visit within a year.[6]

Racial and ethnic health disparities also exist. African-Americans, Hispanics, American Indians, Alaska Natives, and other racial and ethnic minority groups bear a disproportionate burden of disease and disability.[7] Among children aged 2–11 years during 1999–2004, Mexican-American children had higher caries levels (55.4 percent) than black (43.4 percent) or non-Hispanic white children (38.6 percent).[4]

These oral health disparities result in "lower life expectancy, decreased quality of life, loss of economic opportunities, and perceptions of injustice."[1] Children with poor oral health are more likely to experience dental pain, miss school and perform poorly in school. In fact, 17 percent of all missed school days are due to dental problems.[8] Dental problems have also been associated with indicators of emotional well-being, such as shyness, unhappiness, and feelings of worthlessness.[8]

Publically insured children face additional health disparities, which can potentially affect their ability to access dental care. These include obesity, developmental delay, learning disability, behavior problems, and anxiety problems.[9]

Barriers to Care

When it comes to achieving good oral health, many low-income and minority children face significant challenges. These factors include both internal family factors such as parental belief systems and health practices as well as external factors such as availability of providers and transportation. Barriers include:

- Internal family factors:
  - parental belief systems and practices;
  - child's temperament (e.g. resistance to tooth brushing);
  - low parental literacy and an inability to adequately understand current educational materials;[10]
  - lack of parental knowledge about optimal oral health, and uncertainty about prevention;[11]
  - financial difficulties which make it challenging to prioritize dental care;[12]
  - dental anxiety and phobias;[13]
  - perceived lack of access to affordable sources of care;
  - home oral care activities perceived as time consuming and low-priority when compared to other responsibilities.[11]
- External factors:
  - difficulty locating Medicaid and CHIP dental providers;
  - lack of health and dental insurance;
  - limited hours of dental office and clinic operations; and inability to schedule appointments that do not conflict with workplace demands and other parental responsibilities;
  - lack of transportation and geographic distance to dental providers;
  - having to miss school and/or taking time off of work for dental appointments;[14]
  - the complexity of navigating the health care system;[15] and
  - socioeconomic or cultural discrimination.

Many families at high risk of dental caries have a combination of barriers that not only interfere with care seeking, but also with treatment plan/home care compliance. According to Moore-Greene, "When the lack of environmental supports is coupled with limited education and the inability to negotiate a managed care system, noncompliance with treatment is the end result."[3]

Behavior plays a central role in maintenance of good oral health. In order to understand behaviors related to dental access and home care, one must distinguish between those families that are not motivated to adopt positive oral health behaviors and families that are motivated but need support in adopting new behaviors.[16]

Certain beliefs and attitudes mediate the impact of these barriers on access. Parents who do not obtain dental services for their children emphasize appearance, self-esteem, and treatment of pain as being more important reasons than health concerns for accessing dental care. These parents also view dental care in emergency rather than preventive terms. Parents who do obtain dental services for their children in spite of barriers, tend to perceive oral health as associated with overall health, identify professional preventive dental care as an activity that falls within normative caregiver responsibilities, and have a greater knowledge of preventive dental care.[17]

Given the multivariate causes of poor oral health, one specific approach is insufficient to overcome these barriers. Any intervention which seeks to improve the oral health of the population must incorporate numerous techniques in order to overcome specific barriers.

The Dental Home

According to the AAPD Policy Statement on Dental Home, "The dental home is inclusive of all aspects of oral health that result from the interaction of the patient, parents, non-dental professionals, and dental professionals."[18] A dental home:

- Is an ongoing relationship between the patient and the dentist or dental team that is coordinated/supervised by a dentist;
- Provides comprehensive, oral health care that is continuously accessible and family-centered;
- Is an approach that assures all children have access to preventative and restorative oral health care;[19]
- Should be initiated as early as early as 6 months of age, 6 months after the first tooth erupts, and no later than 12 months of age.

Ongoing periodic appointments provide time-critical opportunities to implement preventive health practices and reduce the child's risk of preventable dental/oral disease.[19] Early engagement in a dental home can significantly reduce the cost of care. Children who had a dental visit by the age of 1 year are more likely to receive more preventive services and require less treatment than those children who accessed dental services at an older age.[20]

Definition of Case Management

Case management activities address the reality that life is complex. Most communities are composed of a variety of health systems, providers and provider-types. Children's oral health is influenced by factors that include genetics, biology, social environment, physical environment, health-influencing behaviors, and medical and dental care. It is clear that those who suffer the most disease typically have a host of social issues that make consistent provision of established preventive services difficult.[21]

To affect oral health outcomes, a multi-level, multidimensional approach is required that addresses all these factors.

Case management is a collaborative process of assessment, planning, facilitation, and care coordination to meet an individual's and family's comprehensive health needs through communication and linkage to available resources. [22] It is important to note that non-judgmental, supportive communication is the cornerstone of successful case management. Such communication takes the form of active listening, encouraging self-sufficiency and collaborative problem-solving. It should:

- Enhance developmental, problem-solving and coping capacities of clients;[23]
- Link people with systems that provide them with resources, services and opportunities;[23]
- Support parents in their care-giving role;[23]
- Enable individuals to use their personal resources in meeting environmental challenges;[24] and
- Promote the use of evidence based care.[22]

Activities included in the role of case manager include:

1. Assessment of client's needs, strengths and resources;
2. Development of an individualized plan for achieving optimal health outcomes;
3. Linkage to appropriate community resources,
4. Facilitation of communication between the client and the health care team;
5. Education about treatment options, community resources, insurance benefits, etc.;
6. Active problem-solving with the client – allowing the client to develop her own plans and desired outcomes.

The Role of Case Management in Prevention of Dental Disease

Case management activities support the individual elements of a dental home and can assist families in overcoming barriers to engagement in a dental home through:

- Making the dental home more accessible to families by helping find transportation; completing Medicaid paperwork; scheduling appointments; and following-up with prevention, future appointments and after-care instructions. Community outreach and health literacy instruction can help address family motivation by correcting oral health misinformation and lack of knowledge.
- Ensuring that care is coordinated across providers and that families access available community support resources and helping families understand how the dental home fits within the medical care system and help them complete referrals to other providers.
- Providing services in the dental home that are family-centered and culturally appropriate. By assessing individual family strengths, needs and barriers, these activities are customized to support the individual family. The use of good communication tools, including interpreters when necessary, can assist families in identifying their own goals and developing the skills necessary to ensure optimal oral health for their children, while respecting family preferences and cultural beliefs.
- Utilizing effective and supportive communication techniques is key to achieving successful case management activities. When patients perceive their

Promotores Provide Specialized Case Management Activities.

According to the US Department of Health and Human Services, "Promotores de Salud/Community Health Workers (CHWs) are volunteer community members and paid frontline public health workers who are trusted members of and/or have an unusually close understanding of the community served. Promotores de Salud/Community Health Workers (CHWs) generally share the ethnicity, language, socioeconomic status, and life experiences of the community members they serve. These social attributes and trusting relationships enable CHWs to serve as a liaison, link, or intermediary between health and social services and the community to facilitate access to and enrollment in services and improve the quality and cultural competence of service. Promotores/CHWs can enhance provider-patient communication; preventive care; adherence to treatment, follow-up, and referral; disease self-management; and navigation of the healthcare system. Additionally Promotores/CHWs build individual and community capacity by increasing health knowledge and self-sufficiency through a range of activities such as outreach, community education, informal counseling, social support, and advocacy among communities such as Hispanic/Latino communities."*

**Adapted from the American Public Health Association, 2009, Community Health Workers National Workforce Study (HRSA) and the Patient Protection and Affordable Care Act of 2010*

Definition of Promotores de Salud available at http://minorityhealth.hhs.gov/templates/content.

dentist and the dental team as being dedicated, supportive and caring, they are more likely to take control of their own oral health.[11]

Since case management activities are based on individual family's needs, challenges and resources, they can be delivered efficiently without spending time and effort on unnecessary interventions. Listening to family beliefs and concerns, respecting the family's point of view and not blaming the family increases the likelihood that the family will comply with preventive recommendations.[11] Conversely, the perception of discrimination based on race and being on Medicaid seem to be common and lead to caregiver avoidance of the dental office, resulting in postponed or cancelled visits.[25]

Dental case management has been linked to positive oral health outcomes in the Medicaid population. One New York study that provided comprehensive case management services found an increase in oral health literacy and treatment compliance. The percentage of Medicaid covered children receiving dental care rose from 8.7 percent in 2000 to 41.2 percent in 2004.[26]

Similarly, Kids Get Care in the Seattle area found that, when dental clinics partnered with community organizations and provided case management they achieved an increase of 108 percent in the number of children age 0 to 2 who received a dental visit. In this model, community workers identified children with possible health problems; discussed their concerns with parents and assisted in making referrals to a case manager if the family did not have a regular physician or dentist. Case managers facilitated the first appointments, helped establish eligibility for public health coverage program, ensured follow-up, and helped troubleshoot other barriers to care with families.[27]

Effective Case Management Strategies

In dentistry, the following strategies are useful components of case management:

1. Motivational interviewing
2. Health literacy activities
3. Care coordination
4. Community outreach and education
5. Appointment reminder systems

Motivational interviewing (MI)

One successful communication tool is motivational interviewing (MI) which is a brief, patient centered, personalized counseling approach. Motivational interviewing is an essential component in a successful case management programs. The goal of MI is to assist the client in self-examination by: helping to raise their awareness of the problem; identifying their own oral health-related goals; and increasing their understanding of how current behavior may not be consistent with their goals. Reflective listening and the use of open-ended questioning are the basic components of MI. Motivational interviewing can be used to increase patient and family understanding or the importance of oral health, their engagement in preventive behaviors, compliance with treatment plans, and utilization of community resources. It is a technique that can be utilized in patient education, care coordination and community education and outreach.

The CARES program at SUNY School of Dental Medicine (SDM) provides an example of comprehensive case management services in the context of a dental school-school of social work collaborative effort. Patients presenting at the dental school receive a comprehensive assessment which identifies potential barriers to care. Case management services are developed based on this assessment and the patient's interest in receiving case management services. Eighty percent of patients who received case management services have been retained; many of these had barriers that may have prohibited them from completing treatment. Over the course of three years, the program developed four key functions. They are:

Education: providing behavioral education for dental students and retention of patients allowing dental students to achieve clinical competency, and providing a milieu for medical social work education for master's of social work students;

Clinical: providing cognitive behavioral treatment for oro-facial pain and temporomandibular disorders patients;

Access to Care Assistance: providing linkage to community resources to assist with financial, transportation, health, mental health, living, family, caregiving, and legal situations that can make it difficult for patients to access needed dental care; and

Community Outreach: educating senior citizens about dental care needs, the types of dental care provided in the SDM, and how social workers can assist seniors in getting their dental care needs met.

Each of these functions is important in assisting families to overcome family-, community- and provider-related barriers to care.

A recent meta-analysis of controlled clinical trials addressing MI found that methods similar to MI were equivalent to other active treatments and superior to no-treatment or placebo controls for problems involving alcohol, drugs, and diet and exercise.[28] A systematic review found MI to be the most effective method for altering health behaviors in a clinical setting.[29]

MI has been found to be effective in improving dental outcomes. Subjects receiving MI received more fluoride varnish treatments and had 46 percent fewer cavities than those that did not receive MI When used in conjunction with other services (fluoride, Xylitol, and/or treatment of disease), MI was found to reduce the prevalence of cavities by 62 percent. This reduction in caries can result in substantial cost savings.[30] When mothers received MI in addition to viewing a video and receiving a pamphlet, their children had lower incidence in carious lesions two years later (35 percent vs. 52 percent).[31]

Patient Education and Health Literacy

Health literacy is the capacity to obtain, communicate, process, and understand basic health information and services to make appropriate health decisions. Healthcare systems often function as if all patients have a good understanding of the information provided. In practice, there is often a great discrepancy between what providers intend to convey, in both written and oral communication, and what patients understand.[32] Nearly one half of American adults have difficulty understanding and acting upon health information.[33]

Limited health literacy interferes with a person's ability to understand insurance options and plans features including provider networks, covered services, and specific terms such as cost sharing and managed care. This results in lower-quality communication with health professionals, increased costs, [33] negative health behaviors, poor preventive care and poor child health outcomes.[34] In terms of caries risk, Vann et al (2012) found that individuals with low health literacy were less likely to brush their child's teeth daily, more likely to put the child to bed with a bottle, and reported poorer oral health status. [35]

The U.S. Department of Health and Human Services has identified strategies to assist caregivers with low health literacy to access care and implement preventive strategies.[36] These include:

1. The use of motivational interviewing techniques to provide anticipatory guidance and parent education.
2. Using plain language to communicate concepts. Plain language elements include:
   a. Organizing information so that the most important concepts are presented first;
   b. Breaking complex information into smaller chunks;
   c. Using simple language and providing a definition for technical terms;
   d. Not using medical jargon.
3. Acknowledging different cultural beliefs, values, attitudes, traditions, and language preferences and adapting information and services to accommodate these differences. For providers not proficient in a patient or caregiver's primary language, use of an interpreter is a critical communication tool.

Care coordination

Care coordination facilitates communication:

- among members of one a health care team (receptionist, hygienist, assistant, dentist, etc.);
- between patient care teams, families and professional caregivers;[36]
- across health care settings (primary care, specialty care, inpatient, emergency department, etc.);
- between health care organizations;
- between patients and community services.

The Agency for Research and Quality (AHRQ) has outlined the benefits of care coordination to the patient and family, the health care provider and the system as a whole.

- Patient/Family Perspective. Care coordination helps ensure the patient's needs and preferences for health services and information sharing across people, functions, and sites are met over time.
- Health Care Professional(s) Perspective. Care coordination helps guide patients effectively and efficiently through the health care system, determining where to send the patient next, what information about the patient is necessary to transfer among health care entities, and how accountability and responsibility is managed among all health care professionals (doctors, nurses, social workers, care managers, supporting staff, etc.).
- System Representative(s) Perspective. Care coordination is the responsibility of any system of care (e.g., accountable care organization [ACO]) The goal of care coordination is to facilitate the appropriate and efficient delivery of health care services both within and across systems. [37]

Care coordination is an important component in case management. Caregivers who received education, assistance in finding a dentist if the child did not have one, and support in scheduling and keeping dental appointments from a dental care coordinator had significantly higher dental utilization rates (43 percent vs. 26 percent) than those children and caregivers who did not receive care coordination services.[17]

Community Outreach and Education

Community outreach and education addresses environmental issues, such as a general lack of information about the importance of oral health. Outreach activities engage families where they live, work and go to school. Outreach includes school-based oral health education and screening activities as well as services provided in other locations such as WIC clinics and Head Start programs. To alleviate health disparities, community programs must:

1. Ensure oral health is seen as a part of overall health at the level of the individual child, family, community, and society;
2. Promote health and wellness, not just the absence of disease;
3. Empower families and communities to improve children's health status; and
4. Take a multi-factorial approach to health to move beyond access to care to an overall improvement of health status. [38]

The Access to Baby and Child Dentistry (ABCD) program in Spokane County, Washington, illustrates the success of community outreach and education. In year one, 37 percent of the 4,144 ABCD children had at least one visit to the dentist compared to only 12 percent of non-ABCD Medicaid-enrolled children."[39]

An example of a multi-county model based upon the concept of care coordination is the Access to Baby and Child Dentistry (ABCD) program in Washington state. The program, which involves a combination of outreach and linkage, education for parents and dental professionals and delivery of services has been effective in reducing dental disease in Medicaid beneficiaries (10 percent of erupted teeth decayed or filled vs. 20 percent) In this model, program partners:

- Recruit and train dentists to provide preventive care and treatment to Medicaid-enrolled children from birth to six.
- Work closely with community organizations to help identify young Medicaid-eligible children and remove any barriers that prevent low-income families from receiving dental care for their young children.
- Engage trained primary care medical providers to deliver oral health preventive services during well-child checks.

Community outreach programs are financially feasible. A review of school-based screening and preventive services provided by hygienists with support staff and portable equipment found that services were financially feasible in states when Medicaid fees were at least 60.5 percent of mean national fees.[40]

Successful programs such as these have led the United States Department of Health and Human Services to emphasize community outreach and education through its Title VII, Section 747 Programs. In a recent report to Congress, recommendations for such programs state that they "should focus on providing skills to enable health care providers to deliver culturally effective care to diverse populations, enabling effective communication and outreach in community-based settings, including such non-traditional settings as schools, clubs, and houses of worship, and instilling the ability to interact effectively with local public health and policymaking bodies."[41]

One should keep in mind, however, that outreach is just one of a group of components necessary for a successful case management program. The dental literature suggests that without intensive follow-up, dental screenings in the school setting alone do not result in increased uptake of care at clinically meaningful levels.[39, 40, 42, 43] Thus one can deduce that screenings must be coupled with linkage to a dental home for successful uptake of care.

Appointment Reminder Systems

Failed appointments deter providers from participating in Medicaid due to lost revenue. In 2000, the American Dental Association (ADA) reported that one-third of Medicaid patients failed to keep their appointments. State Medicaid policies do not provide a mechanism for recouping the overhead costs of these missed appointments.[44] Most importantly, failed appointments mean that children may suffer persistent pain from untreated conditions. In fact, a history of failed appointments has been identified as a risk factor for ECC.[45]

Appointment reminders for patients can include face-to-face communication, postal messages, calls to landlines or mobile phones, and mobile phone voice and text messaging. Telephone, mail and text/short message service result in only a modest improvement in attendance.[46]

Conclusion

An increase in early prevention and oral hygiene instruction provided to children and parents/caregivers through early engagement as a result of community outreach and case management activities has the potential to substantially reduce the overall cost to the system that results from delayed treatment and lack of knowledge by vulnerable populations of good oral hygiene and other preventive practices.

Improving compliance with dental care and prevention need to be comprehensive in order to address the spectrum of challenges that families at high caries risk face. No one strategy alone is likely to be effective. A comprehensive approach to case management should encompass multiple strategies that can include proven modalities such as: motivational interviewing, health literacy activities, care coordination, community outreach and education and appointment reminder systems.

Policy Recommendations for Case Management in Pediatric Dentistry

1. Programs that provide care to low-income families, such as Medicaid and CHIP, can improve the oral health of children by reimbursing for case management activities including:
   a. Motivational interviewing;
   b. Patient education and improving health literacy;
   c. Care coordination; and
   d. Community outreach and education.
2. Case management and motivational interviewing should become a part of curricula for dentists and advanced training programs to aid in improving compliance with care and improving oral health.
3. A simple and provider-friendly mechanism for reimbursement for translation services must incorporated into dental benefit programs.

Case Study

By: Barbara Greenberg

Tompkins County Dental Case Management (DCM) Program

The Dental Case Management Program was originally funded under an Innovative Oral Health Preventive Services Grant. The Tompkins County Health Department received $30,000 a year from the NYS Department of Health and contracted with the County Department of Social Services to support a full-time dental case manager within the Department of Social Services Medicaid Program.

Access to dental care had long been an issue for Tompkins County residents, especially in finding a dentist willing to take Medicaid. In 2000, only two dentists accepted new Medicaid patients.

THE CASE MANAGEMENT MODEL

DCM enhances access to dental care by linking patients to dental offices through a case manager.

The Case Manager:

- Recruits dentists for the Medicaid Program;
- Facilitates training and support of dental offices on electronic and paper billings;
- Helps resolve Medicaid billing issues;
- Conducts client intake appointments;
- Verifies client Medicaid eligibility;
- Educates clients about oral health and use of dental services;
- Matches clients to dental offices;
- Coordinates transportation;
- Reminds clients about appointments;
- Works with clients to minimize missed appointments.

THE RESULTS – AFTER THE FIRST 3 YEARS

- Dentists accepting new Medicaid patients increased from **two** to **28**;
- Clients averaged three dental visits a year; kept >98 percent of appointments;
- Percent of Medicaid clients getting dental care increased from **nine percent** to **41 percent**.

SHIFT TO MEDICAID MANAGED CARE

The county changed over to Mandatory Medicaid Managed Care on July 1, 2012. The case management staff worked with dentists in its dental case management provider network to get them to sign up as a dental provider with the managed care plans. They also worked with the plans and provided them with the names and contact information of all dentists who were participating in Medicaid fee-for-services. The focus was on getting the largest Medicaid fee-for-service dentists to enroll in the plans. Because of the excellent relationship that had already been established with the dental providers in the county, there were no problems with the transition to managed care.

With the shift to Medicaid Managed Care, there is less hands-on activities with respect to provider recruitment and helping clients to find a dentist.

The DCM Program continues to be highly valued by the dentists, clients, and county leaders.

PRIOR TO THE SHIFT TO MEDICAID MANAGED CARE

- 1,500 individuals were enrolled in dental case management;
- 46 dentists accepted Medicaid;
- No-shows were not a problem;
- Dentists were seeing children under 1 year old;
- Dentists would take anyone referred and educated by DSS.

SUSTAINABILITY

Tompkins County no longer receives grant funding from the NYS Department of Health, but the program remained viable. The original dental case manager who was funded by the grant was employed by DSS as the managed care supervisor and supervised two dental case managers. Although there was no dedicated funding for dental case management, DSS includes a dental case management as part of the regular workload. Motivational interviewing was used to educate clients about the importance of dental health and keeping appointments.

The program continued to operate pretty much as first designed, except for a shift in focus to utilization history and eligibility verification. Because DSS verified Medicaid eligibility prior to making a referral, dentists knew they would be reimbursed and therefore had no problem seeing Medicaid patients.

CONTACT INFORMATION

Dental Care Assistance
Dental Care – (607) 274-5344 or (607) 274-5692. This program assists Medicaid recipients who need dental care to access those services. Case managers work with clients and dentist's offices, identifying and addressing transportation, language, and other barriers to making and keeping appointments.

Managed Care Supervisor: Holly Stevens

Definitions

Dental caries is a common chronic infectious transmissible disease resulting from tooth-adherent specific bacteria, primarily mutans streptococci (MS), that metabolize sugars to pro-duce acid which, over time, demineralizes tooth structure.

Early childhood caries (ECC): Early childhood caries is the presence of one or more decayed, missing, or filled primary teeth in children aged 71 months (5 years) or younger. In children younger than 3 years, any sign of dental decay is considered Severe ECC, or S-ECC. Early childhood caries not only causes pain, but also impacts children's ability to eat, play and sleep. It is associated with chronic childhood conditions and nutritional disorders, and is the strongest predictor of poor oral health later in childhood and into adulthood, when it is associated with clinical symptoms as well as psycho-social outcomes such as low self-confidence and poor perceived social acceptability.

The **dental home** is the ongoing relationship between the dentist and the patient, inclusive of all aspects of oral health care delivered in a comprehensive, continuously accessible, coordinated, and family-centered way. Establishment of a dental home begins no later than 12 months of age and includes referral to dental specialists when appropriate.[14]

Functional Health Literacy is the ability to read, understand, and act on health information. "The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions."[15]

Care Coordination, as defined by the Agency for Healthcare Research and Quality is "the deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of health care services."[16]

"The terms *promotores* and *promotoras* are used in Mexico, Latin America and Latino communities in the United States to describe advocates of the welfare of their own community who have the vocation, time, dedication and experience to assist fellow community members in improving their health status and quality of life."[17]

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