



Oral Health Problems in Low-Income Latinos: Upstream Causes and Solutions

March 4, 2010

Prepared for:

Growing Up Healthy of
Rice County, Minnesota

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Project Goals

1. Identify the upstream causes (i.e. environmental, cultural, behavioral factors) of oral health issues among Rice County's low-income Latino population.
2. Present Growing Up Healthy with program proposals to eliminate the deficiencies in oral care based on current theory and our research.

Report at a Glance

<i>Methods</i>	2
<i>Upstream Causes</i>	2
<i>Current Approaches</i>	4
<i>Recommened New Approaches</i>	5
<i>Evaluating New Approaches</i>	8
<i>Potential Obstacles</i>	8

Methods

We conducted a web-based survey of health care providers in Northfield to identify health issues among the low-income Latino population. The survey asked local physicians open-ended questions about the health problems they observe among this demographic, about possible upstream causes of these health problems, and for suggestions of ways to address the upstream causes.

Our group conducted interviews with local medical professionals to further explore questions about health issues and upstream causes. Janet Muth, the coordinator of Growing Up Healthy, suggested interviewees. Group members met with Dr. Randolph Reister of Northfield Hospital, Anne Meyer-Ruppel, a certified nurse practitioner, and Dr. Gretchen Ehresman, both of Allina Clinic. Two of ten interviewees and survey respondents mentioned oral health issues.

Based on survey and interview responses, we decided to focus on the issue of dental care in the low-income Latino population. We then contacted

Northfield and Faribault dentists, the Minnesota School of Dentistry, Rice County Public Health, and the Community Action Center to learn about the resources available to low-income families. We assessed the effectiveness of the resources available to the-low income Latino population based on responses we received and current research. We then devised a policy proposal to begin addressing the oral health problems faced by low-income Latinos.

Upstream Causes

The oral health problems low-income Latinos experience, including mouth sores and abscessed teeth, are the result of poor preventative care and treatment (Meyer-Ruppel, 2010). “Upstream” causes of these problems, including issues financing care, cultural beliefs and language barriers, play a role in the poor oral health of low-income Latinos. We identified these upstream causes through our surveys, interviews and applicable research about dental problems in low-income Latino communities.

Low Income and Lack of Health Insurance

Many with low incomes have no health insurance or health insurance that does not cover dental care (Patrick et al., 2006). This problem is compounded by the high cost of dental care and the lack of dentists who accept Medicaid, Medicare or other government health insurance programs (Sission, 2007). Those with lower incomes are also less likely to have personal transportation to visit the dentist (Sission, 2007).

Low income also restricts the amount of “teeth healthy” foods and beverages

an individual can purchase. A number of studies find that those in lower socioeconomic groups purchase higher amounts of sugars, preserves and refined carbohydrates (Sission, 2007). Anyone regularly consuming these foods is at higher risk for a variety of oral health problems.

Cultural Beliefs and Practices

One particular practice of many Latinos has garnered attention from the dental community: mothers often give their infants a “sippy cup” of juice to drink constantly (Leger et al., 2010). The sugar in the juice causes long-term dental problems, such as cavities.

Cultural specific beliefs about the importance of preventative care may also contribute to poorer oral health among low-income Latinos (Patrick et al., 2006). For instance, beliefs about the importance of eating non-sugary foods may also influence food purchasing decisions. Beliefs about the negligible impact of brushing, flossing or getting teeth cleaned may

also influence the frequency of these preventative behaviors.

Language Barriers

Latinos less proficient in English are less likely to visit the dentist. Poor English skills make arranging a dentist appointment and visiting the dentist a particularly fearful experience. One study found that those Latinos who didn't speak English were less trusting of dental professionals (Patrick et al., 2006).

Other “Macro” Causes

Other upstream causes, beyond the control of Rice County or its health care agencies, also influence low-income Latino dental problems. More Latino, Spanish-speaking dentists might ease language barriers to treatment for Latinos across the country. The illegal immigration status of many low-income Latinos also drives their decision to avoid dentists and other medical professionals, whom they fear may report them to immigration authorities (Patrick et al. 2006).

Addressing these causes requires legislative reform (Derose et al., 2007). Community-based responses would not effectively address issues of illegality and healthcare.

Illegality, adjusting to a new culture, and leaving family thousands of miles away may also lead to increased stress among low-income Latinos. Although there is limited research on the direct effect of stress on oral health, stress-related immune system suppression may increase susceptibility to oral disease (Sission, 2007).



Sippy cups full of sugary juice may contribute to the oral health problems of low-income Latinos.

“Every tooth in a man’s head is more valuable than a diamond.”

-Cervantes

Current Approaches

Services Offered by Dentists:

- A typical appointment (including a cleaning and x-rays) costs between \$80 and \$150 for the uninsured.
- The cost of a typical filling is based on the severity of the cavity and material used. Prices start around \$100 and can exceed \$300.
- The offices we contacted all offer payment plans which allow uninsured patients to pay in installments with no interest charges.
- Offices also offer same-day payment discounts of 5% when paid with cash or check.
- One office we contacted estimates that they do several emergency visits for free weekly.
- Free and sliding-scale clinics are available in other areas of the state.

Problems with Current Dental Services

Despite the availability of payment plans and discounts, a low proportion of uninsured Latino patients receive regular checkups and preventative care (Meyers-Ruppel, 2010). Financial concerns are not adequately addressed by the options offered by dental offices. This presents a significant barrier to securing adequate oral care (Patrick et al., 2006). No Northfield or Faribault dental clinics are on the Minnesota Dental Association's list of clinics that treat patients on public care programs, or that offer services at a reduced cost (Minnesota Dental Association, 2010). Only one of four dentists we contacted provided language resources for Spanish-speaking patients. No community-wide program exists to address language barriers and the co-occurring lack of cultural awareness (Patrick et al., 2006). Though free and sliding-scale clinics are available in other parts of the state, no specific programs exist to transport patients to these clinics. Current dental office services are not adequate to address the barriers that prevent uninsured Latino patients from attaining adequate dental care.

Services Offered by Community Programs:

- Ronald McDonald Care Mobile: A trailer outfitted as a dentist's office comes to the Community Action Center in Northfield once a month. It has a dentist, hygienist, and several assistants on staff, and provides dental care (regular cleanings, fluoride treatments, sealants, x-rays, fillings, extractions) to uninsured children. The program schedules about 12 appointments per day (Bjerke, 2010).



The Ronald McDonald Care Mobile offers dental care to uninsured children once a month.

- Give Kids a Smile: A program that provides low-income children with preventative and restorative care from volunteer dentists and hygienists. The event is one day a year and appointments must be made in advance (Minnesota Dental Association, 2010).
- Individual efforts: One volunteer at the Women, Infants, Children (WIC) clinic administers fluoride applications free of charge to those without insurance. The volunteer also provides some educational information on preventative dental care to children and pregnant women.

Problems with Current Community Services

While these programs represent a promising start in providing dental care to uninsured Latinos, additions to the currently available programs are necessary. Sporadic opportunities for dental care do not effectively address problems of poor oral health. These programs do not address upstream causes such as cultural beliefs and language barriers which may prevent uninsured Latinos from receiving adequate treatment (Watson et al., 2001). Furthermore, the current system does not foster the development of good preventative care habits (daily brushing and flossing), and does not address the lack of education that may hinder effective oral care (Watson et al., 2001).

Recommended New Approaches

Based upon the identification of upstream causes that contribute to poor oral health among the low income Latino population, we recommend policy changes that target two types of impediments to treatment: financial and cultural.

Financial:

Provide subsidized transportation. Lack of transportation to and from dental clinics impedes access to oral care (Watson et al., 1996). Many people who are unable to afford dental care in Rice County are referred to clinics in the Twin Cities that offer care for a reduced cost or on a sliding fee scale (Bjerke, 2010). However, these people often do not have their own mode of transportation and are unable to afford a ride up to the Twin Cities. Those who are unable to pay for transportation do not have other options for dental care due to the lack of clinics that offer care for a reduced cost. Subsidizing transportation through taxi vouchers or other means would make affordable dental care more accessible.



Subsidized transportation could enable use of sliding-scale dental clinics in Minneapolis-St. Paul.



A free dental clinic in Rice County could serve patients of all ages and income levels.

Implement a community collaboration for emergency dental assistance.

This suggestion is based off of a model co-op in a large metropolitan area in Michigan that combined the efforts of community dentists and social service agencies. Their main goal was to coordinate voluntary services of private dentists who provide emergency care to uninsured individuals (Watson et al., 1996). Participating dentists donated their time and materials and agreed to see one patient a month. Patients were referred to dentists by various social service organizations. Implementing a program of this kind would cost little and require a minimal time commitment from participating dentists. Ideally, this collaboration would enlist the help of dentists from clinics throughout the county. This would make transportation less of an obstacle to care as patients could be referred to nearby clinics.

Establish a free dental clinic that accepts clients of all ages.

Although a long term project, a clinic that treats patients without insurance regardless of age or gender is desperately needed in Rice County. Free dental clinics have been successful across the country. For example, in 2002 the Inter-Lakes Dental Clinic was established in Ticonderoga, New York (Rural Health Demonstration Project, 2005). Although it served people of all ages and income levels, the program focused on providing free or reduced cost care to low-income families. The Moses-Ludington Hospital provided office space and a lab for x-rays. The clinic was also able to negotiate reduced pricing for equipment and employ a dentist who was motivated by service rather than salary. After an initial grant period, the clinic became fully sustainable through third party billings. A free dental clinic in Rice County is a much needed resource that would increase rates of treatment in the low income Latino community.

Cultural:

Increase the availability of Spanish-speaking interpreters.

Lack of interpreting services is associated with patient dissatisfaction, poor adherence to treatment, and ineffective care (Betancourt et al., 2003; Derosé et al., 2007; Ramos-Gomez et al., 2005). The lack of interpreters in dental clinics deters many non-English speakers from seeking any type of dental care. Increasing the availability of interpreters in clinics would enhance the trust in the patient/provider relationship, which would increase adherence to treatment.

Examples of ways to reduce language barriers to oral care include:

- An available interpreter to accompany patients on visits to the proposed co-op
- Interpreters at the free clinic
- Spanish-speaking receptionists or availability of interpreters during appointment scheduling
- Advertising to promote community awareness of Spanish language resources

Create dental health education programs that specifically target the Latino population.

Health education has been shown to be most effective in preventing dental disease if the promotion is tailored to a specific population and addresses the beliefs and attitudes of that population toward oral health (Watson et al., 2001). Responses to our survey indicate that a main cause of dental decay in Latino children is drinking sugary juices and sodas such as juice and soda from sippy cups (Leger et al., 2010). Therefore dental health education programs targeting the Latino community should emphasize the role of sugary drinks on tooth decay as well as preventative measures including proper brushing and flossing techniques. Dental care promotions are particularly effective when there is abundant and prolonged exposure to a variety of prevention methods. A dental health initiative should be located not only in schools, but also in daycare centers, community health fairs and other community-based sites (Rural Health Demonstration Project, 2010). Promotional activities should

Key Traits for New Dental Health Education Programs

Address the effects of sugary drinks on teeth.

Implement program in a variety of venues, including daycare centers, community health fairs and other community based sites.

Use culture-specific promotional activities, including pre-school and elementary school songs in Spanish.

be culture specific. Examples include introducing oral health songs in Spanish to preschools and elementary school, and oral health presentations targeting misconceptions about oral health specific to the Latino community (Watson et al., 2001).

Conduct research on Rice County Latino beliefs and attitudes toward oral health.

Although research has been conducted on the disparities in oral health between Latinos and the general population, not much is known about the Latino community's beliefs and attitudes toward oral care. Because beliefs and attitudes toward health have a significant effect on health behaviors and outcomes, there is a need for studies that focus on generational and cultural influences on oral health (Ramos-Gomez et al., 2005). Further research in Rice County could determine how health education programs should target misconceptions about oral care. Responses could indicate if a cultural divide between provider and patient is a significant deterrent in Latinos seeking dental care. If this is the case, cultural education for dentists would be beneficial.



Evaluating New Approaches

Depending on the policies adopted, concrete measures of program success could take several different forms. Self report measures, such as the proposed survey of Latino attitudes and beliefs toward oral health care, could assess the efficacy of educational programs. This survey could also ask questions about cultural sensitivity and the availability of interpreters or Spanish-speaking staff, which would provide insights into the impact of our cultural policy proposals. The impact of our financial policy changes could be assessed through several methods. Previous projects have often used total patient enrollment, number of patient visits, and estimated value of services provided as markers of program success (Rural Assistance Center, 2010). Patient and staff input about perceived strengths and weaknesses of any implemented programs would also be vital.

Potential Obstacles

Three main obstacles may impede the implementation of our policy proposals:

Inadequate funding is the biggest hurdle to successful program implementation. Although there are available grants and resources to fund dental nonprofits (Slott, 2005), these sources of income are often unsustainable. For example, the Miles of Smiles program reimbursed dentists through a grant to provide treatment for uninsured children in Rice County (Bjerke 2010). When the program lost funding, it could no longer afford to

provide children with quality dental care. As a result, the program ended. It is important to implement programs that can eventually be self-sustaining, and to keep expenses to a minimum while still providing necessary services.

The practicality of these programs must also be taken into account. Several of the proposed programs would entail large amounts of organizational planning and effort on the part of community organizations. The co-op proposal would require the coordination of participating dentists and social service agencies, and the proposed health education program would require the collaboration and time of public schools, day cares, and other community programs. We recommend beginning with smaller programs, such as a co-op that only includes a couple of dentist offices. Then gradually expanding the initial program would lessen the burden of organizational issues.

The community may be unwilling to support these programs. In many cases, oral health is not a high-ranking public health concern. If Rice County Public Health and other community partners are not enthusiastic about eliminating disparities in oral health, then these programs will not receive the support necessary for successful implementation. Additionally, dentists may not be willing to donate their time once a month. The best way to address these problems is to a) emphasize the adverse effects of oral disease on general health, b) minimize the time dentists would be required to donate and, c) emphasize the benefits of volunteering for the dentist's own practice (e.g. positive press). Fundraisers or grants could pay for materials so dentists would donate only their time.

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