

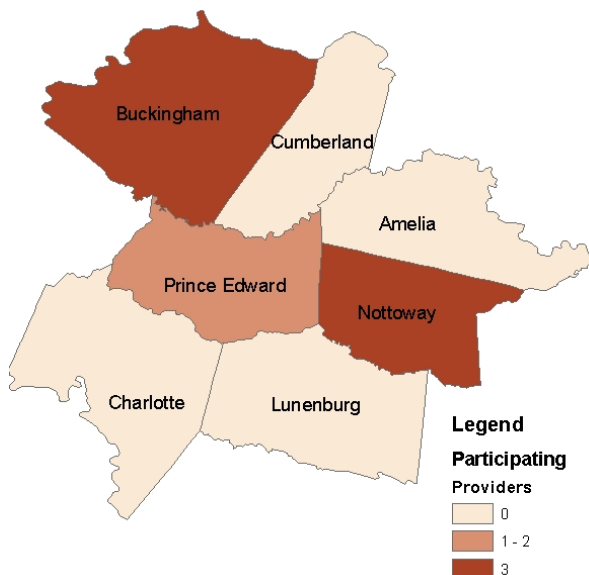
# Piedmont Smiles

*Extending Primary Dental Care Services to At-Risk Children in the Piedmont Health District through a Mobile Dental Van Supported by a Fixed Dental Facility*

## 1. Abstract

The goal of this project is to obtain funding for a dental clinic located in Cumberland County, Virginia, that will provide care to indigent children. In order to obtain funding it was necessary to develop community partnerships, to obtain in-kind support for the project, and to submit a well conceived grant proposal with a viable sustainability plan.

Because the Piedmont Health District comprises a large rural geographic area, we conceived of a model that combines a fixed dental facility with a mobile dental unit.



## 2. Introduction/ Background

We will open a dental clinic in the Cumberland Health Department to provide services to indigent children in the

Piedmont Health District. Such services are severely limited in our area. Six of the seven counties in the Piedmont Health District are federally designated Health Profession Shortage Areas (HPSAs) for dentists, including Buckingham, Charlotte, Cumberland, Lunenburg, Nottoway and Prince Edward. Based on the Enrolled and Participating Provider Report from Medicaid for the most recent reporting period of 10/1/06-12/31/06 four of our counties had no enrolled providers participating. The above chart illustrates the areas with the highest need in the District.

According to the 2004 Small Area Income and Poverty Estimates, the six counties in the District that are HPSAs have between 19.8% and 21.8% of children under the age of 18 living in poverty compared with 12.2% of children in Virginia. Enrollment data for Medicaid and FAMIS as of June 30, 2006 indicates that there are over 8,000 children in the District who are eligible for *Piedmont Smiles*.

**Enrollees in Medicaid and FAMIS as of 6/30/2006**

| <b>County</b>          | <b>Medicaid</b> | <b>FAMIS</b> | <b>Total Enrollees</b> |
|------------------------|-----------------|--------------|------------------------|
| Amelia                 | 703             | 73           | 776                    |
| Buckingham             | 822             | 86           | 908                    |
| Charlotte              | 1338            | 142          | 1480                   |
| Cumberland             | 587             | 43           | 630                    |
| Lunenburg              | 852             | 77           | 929                    |
| Nottoway               | 1487            | 96           | 1583                   |
| Prince Edward          | 1908            | 160          | 2068                   |
| <b>Total Enrollees</b> | <b>7697</b>     | <b>677</b>   | <b>8374</b>            |

There are no Medicaid dental providers in Cumberland, Charlotte, Lunenburg or Amelia Counties. Although Buckingham has a Community Health Center, 75% of their clients are adults. The public schools and the department of social services in Buckingham County report an unmet need for pediatric dental services. This project will compliment the services currently offered by the Community Health Center and has a significant ability to improve the health of young people by increasing their capacity to succeed in the educational environment and in life.

A Community Needs Assessment was performed for the Head Start programs in our planning district in 2005. The parents of children in Head Start ranked access to dental care as the number two unmet need in the region. This placed the need for dental care above affordable housing and jobs. Our response to the Needs Assessment has been to conduct a series of discussions with local leaders. These discussions resulted in our grant application, *Piedmont Smiles*.

In order to address this need we have ordered equipment for two operatories including a compressor, vacuum, film processor, magnifier, high and low speed hand pieces, stools, and two dental chairs. We anticipate accepting delivery on these items in April. This will be financed by our cooperative budget. We recognize the importance of oral health and plan to fully integrate this service into our health

department offerings along with the fluoride rinse and varnish program.

Five counties in the Health District have low levels of naturally occurring fluoride in the courthouse district where the schools are located. These counties are Buckingham, Charlotte, Cumberland, Nottoway and Amelia. Both Buckingham and Charlotte schools have participated in the school-based Fluoride Rinse Program for 1<sup>st</sup> through 5<sup>th</sup> graders for several years. We were successful in engaging Nottoway schools in this program for the 2006-2007 school year and we are currently in discussions with the administration of Cumberland schools.

### **3. Project description**

A common concern expressed by school superintendents and the directors for social services has been access to dental care. With this grant we will be able to provide services to indigent children throughout the Health District. We already have an agreement in place that will enable us to leverage these grant funds to acquire the use of a new mobile dental van from the Virginia Department of Health's Division of Community Health Services. This will allow us to provide preventive and screening services at the school resulting in students missing less time away from the classroom. Based on data from other

health districts we estimate that we will be able to provide services to over 700 children per year (1,300 visits per year).

A busing system will be used to transport children between the schools and the dental clinic. We will use block scheduling and have 4 children transported to the clinic each morning and again each afternoon. Care coordination will be facilitated by the dental assistant and the school nurse. In addition, school nurses from throughout the District will consult with the dentist on emergency cases involving indigent children to ensure services are provided in a timely fashion. Children will be triaged based on the level of dental services needed. Developing a care plan at the time of screening will allow for efficient scheduling and prioritization of appointments subsequent to obtaining parental permission. We will also provide services to the 18 Head Start classrooms in the District. They have agreed to arrange transportation for students to our facility for dental services.

A second means by which we will leverage Foundation funds is through a partnership with the Dental Division of VDH. They recently received a grant from Public Health and Health Services (PHHS) to have a dentist perform a longitudinal study assessing the disease burden in children (K-2<sup>nd</sup> grade) through dental screenings performed in a school-based setting. If our grant application is funded they will partner with our District to obtain baseline oral health data prior to

program implementation. Screenings performed in subsequent years will then provide the basis for an impact study of *Piedmont Smiles*. In addition, it will assist us in better defining the problem and focusing future interventions.

#### **4. Funding priorities**

The Foundation and *Piedmont Smiles* share the goal of ensuring that a viable safety net is in place for dental services. We will achieve this objective by broadening our current scope of clinical services to include dental care for indigent children.

Our priority groups are children who have Medicaid, FAMIS or no dental insurance if the family lives at or below the 200% Federal Poverty Level. A minimum charge will be established for all other children by using the health department's sliding fee scale. We will make special arrangements with Head Start to ensure that their screening and oral health needs are met in a timely fashion.

#### **5. Community commitment and collaboration**

We have already received a cash donation from Wal-Mart in support of this project, and we have commitments of in-kind support from Head Start, the public schools, school nurses, social services, the Dental Division of VDH and Community Health Services. In-kind support will be provided by the Piedmont Health District in the form of

rental space, utilities and dental equipment and personnel for project oversight.

The school nurses will assist in coordinating parental consent and obtaining Medicaid numbers for health department billing purposes. The executive director of Head Start has agreed to provide assistance in obtaining parental consent and insurance information.

The Division of Dental Health will facilitate the expansion of the Fluoride Rinse Program. Additionally, they will provide clinical quality assurance, onsite peer review and consultative technical program support. Children's Hospital in Richmond and UVA will be the referral sources for children with complex dental care needs including anesthesia and surgery.

## **6. Project management**

*Piedmont Smiles* will come under the management responsibility of the Piedmont Health District (PHD). The PHD has provided leadership and served as a resource to address basic health needs throughout the District for decades. The Director of the PHD is Kay Rankin, MD, MPH. She has a long standing commitment to oral health and is dedicated to the implementation and oversight of this project. Quality assurance will be monitored by Lynn Browder, DDS, MBA from the Dental Division of the Virginia Department Health. Dr. Browder visited our Cumberland office in September and provided guidance regarding the

dental equipment purchases for the operatories and has served as an advisor on this project.

## **7. Cost-based and outcome-oriented evaluation criteria**

Data will be collected on each patient encounter that will allow a unit cost analysis and comparison with all other health department dental clinic services. Cost per client will be determined and tracked as one management tool and reported to VHCF.

### Outcome Measures:

- Improve knowledge, attitude and behavior regarding oral hygiene in the target population. This will be measured by comparing baseline questionnaire findings on enrollment with the results of subsequent questionnaires provided on an annual basis.
- Decrease the incidence of dental caries in the target population. The previously mentioned longitudinal study will eventually provide data on the change in the rate of dental caries.

### Output Measure:

- Improved access to dental care for the target population with penetration into the unmet Medicaid dental service need. This will be measured by comparing the utilization of dental Medicaid services received in 2007 (baseline) with dental Medicaid utilization rendered annually for each of our seven counties.

### Unit Cost Measures:

- We will compare our program costs to similar non-profit clinics as well as the market value of our services to the actual cost of delivering these services.

### Process Measures:

- We will implement an educational campaign to expose 8,400 parents of the target population to specific educational materials on the importance of oral hygiene.
- Provide dental services to 700 indigent children (1,300 visits) in the Piedmont Health District during the first year of the grant. (This number is based on the capacity of a single dentist and dental assistant, Division of Dental Health, VDH).
- Place 1,000 dental sealants for children in the PHD during the 2007-2008 school year. (Target based on an average of 4.0 sealants per student thus  $250 \times 4 = 1,000$ ).
- Encourage Cumberland County to adopt a Fluoride Rinse program for children in 1<sup>st</sup> through 5<sup>th</sup> grade during the 2007-2008 school year.
- Provide fluoride varnish to 162 children enrolled in Head Start. This will be provided by nurse practitioners employed by the District. (Target based on 60% acceptance, thus  $270 \times 60\% = 162$ ).

## **8. Sustainability Plan**

Based on the experience of other health districts we anticipate that revenue from Medicaid and FAMIS will support 50% of the personnel costs after one year of operation. In addition, there will be ongoing costs for supplies, vehicle maintenance and gasoline. We project that we will need \$100,000 in the second year of operation. The increase in employee salaries and benefits should be offset by increased revenues from Medicaid due to efficiencies that have been realized. We will ask each of our seven counties to contribute \$7,000 as 100% local funding toward this project in year two. We will also ask the Foundation to help support the program in the amount of \$50,000. By the third year of operation we anticipate that the localities will have fully recognized the value of this initiative and will be ready to fully support the program.

## **9. Strategic plan/ Vision Statement/ Leadership**

Our strategic plan includes the provision of dental services for children at the fixed facility in Cumberland County augmented by a mobile dental unit to provide services to our other underserved counties. Our vision is to assure access to health care including oral health care for all children throughout our service area.

*Piedmont Smiles* is a collaborative project lead by the Piedmont Health District and the District Director. Partners in this project include

the Dental Division of VDH and Community Health Services. We have had strong support in all seven counties from social services, school superintendents, school nurses, and Head Start, as well as from local dentists and Wal-Mart.

## **10. Results**

This project did not receive funding through the Virginia Health Care Foundation. The Foundation chose to fund other models that would provide more services per dollar invested. The biggest barrier I encountered was trying to help the Foundation understand that it is not possible to see as many children per hour in a rural area where the dental staff have to drive an hour or more to get from the fixed facility to the mobile clinic. The Foundation felt that this time shouldn't be compensated time, but that is contrary to our internal policy. The successes I experienced included a very strong relationship with the Dental Division of the Virginia Department of Health. With my support they implemented a dental screening program in the schools and have just started a dental sealant project for the schools. We have also been successful in getting fluoridated water to the schools in one of the seven counties. My mentor was extremely supportive and served as a reviewer of the grant proposal prior to its submission. He also provided council regarding how to approach the Foundation regarding their concerns about the project.

## **11. Conclusion**

The benefits to the community include the new dental screening program, the sealant program, and water fluoridation. The lack of dental providers for indigent children remains a challenge.

I accepted a position in a different health district shortly after this grant proposal was rejected, so the future of access to dental care in the Piedmont Health District will be a challenge of the next health director. In my new district, I have already initiated a partnership with the Dental Division regarding a sealant program for children. More importantly, as a result of all that I learned about scope of practice issues in dentistry from my research for the grant, I was able to assist a state mental health facility in my new district with a plan to provide dental care to their residents. This has been my biggest success, and it came as a result of a recommendation from a mutual acquaintance for the administrator of the mental health facility contact me.

## **Leadership Development**

The two skills I most wanted to develop as a result of this project were increasing my competency in building collaborative relationships and improving my public speaking skills.

As a result of this project I learned a lot about working with others and building partnerships. This was one of my main goals because

everything we do in public health involves working with others and being able to communicate our vision to others in such a way that they will buy-in to the vision. My relationship with the school superintendents and principals was greatly enhanced because they understand that children will be better able to learn if they aren't suffering with dental pain. My relationship with social services was enhanced because they are constantly challenged with trying to find providers for children without insurance who have dental problems. And my relationship with the Head Start program was strengthened because we share the same goal of ensuring that children have access to care. Perhaps most importantly, my relationship with the Dental Division of VDH was strengthened because it is somewhat unusual for a physician to take such a strong interest in oral health.

This project received tremendous support from the community. I had the opportunity to speak with a number of different audiences about the grant proposal and the need in our community. The numerous speaking opportunities helped me develop more confidence in public speaking. I enrolled in a 12-week Dale Carnegie course to further boost my speaking skills and through the course I learned many new techniques to engage an audience.

My knowledgebase about oral health grew significantly, and as a result, I am acknowledged by my peers as a subject matter expert. My

peers now turn to me when facing questions about access to dental care. This is quite a tribute given that my project was not funded.

The final way in which my leadership development continues is through further education. Following our December retreat, I realized that I needed to develop some of the softer business skills. As I talked with others and read more about this, I realized that what I really wanted was to learn more about all aspects of business. I applied to the Virginia Commonwealth University (VCU) MBA program and was accepted in May. I started classes in August and I am finding it to be a wonderful complement to SEPHLI.

My SEPHLI team has been a terrific source of support and knowledge. I treasure the experience and I thank all of you for all that you do for this program and for public health.