

Working Together

Improving Access to
Oral Health and Dental Care for
Underserved Populations



HIGHMARK®
FOUNDATION

ONCE A YEAR, dental health providers at Pennsylvania's Lehigh Valley Hospital Health Network join the rest of the nation in marking Give Kids a Smile Day by offering free, comprehensive, pediatric dental care for children in the growing Hispanic population of Allentown. But in 2009, amid the celebration, festive balloons, and toothbrush-filled grab bags, a 15-year-old, uninsured Allentown girl who showed up for what was supposed to be a routine dental cleaning and exam at the clinic, learned that the large untreated mass inside her mouth would require emergency surgery. The young girl ended up losing about three quarters of her lower jaw.



This girl's story is just one example of how oral disease and lack of proper dental care can plague the nation's children. Though extreme, it represents the story of so many children from poor and underserved families who bear the burden and have as much as 80 percent of the dental disease in the Keystone State and who are twice as likely to have dental decay, concluded the Pennsylvania Department of Health.

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Introduction

Across the United States, oral health problems are further compounded because too many go without dental care or face disproportionately high barriers to getting dental care even when they have dental coverage. Just under one-third of Medicaid-enrolled children in Pennsylvania received dental services and school-based sealant programs are reaching less than a quarter of high-need schools, according to *The Cost of Delay: State Dental Policies Fail One in Five Children*, a February 2010 report by the Pew Center on the States. Pew scored all 50 states and the District of Columbia in the report, using an A-F scale on whether and how well they are employing eight proven policy solutions to ensure dental health and access to care for children. Pennsylvania met just two of the eight policy benchmarks, earning the state a failing grade.

There is a deep and growing divide among America's children and adults who can access oral health care and those who cannot. Disparities in understanding and gaining access to oral health care are having life and death consequences. They plague the nation's most vulnerable populations—the poor, especially children who may never get to climb into a dentist's chair, the elderly, and some racial and ethnic groups. For many seniors, quality oral health care, an important component of overall health care, can often end at retirement.

Not only who you are but also where you live can mean the difference between getting quality oral health care or not. In one instance, the number of Dental Health Professional Shortage Areas (DHPSAs) in Pennsylvania's rural areas over the past 20 years puts such differences

in the spotlight. As of September 2002, there were 67 DHPSAs designated in the state involving nearly 1.5 million people. Of that number, 49 of these were special population DHPSAs. Oral health experts recognize that both nationally and in the state of Pennsylvania there are shortages. These shortages are exacerbated by the number of providers who are reluctant to see and treat low-income and uninsured patients, especially those on Medical Assistance.

The state of Pennsylvania is part of what the first-ever Surgeon General's report on oral health, *Oral Health in America*, called "a silent epidemic" of dental and oral diseases that burden millions of children and adults

throughout the United States. The report, issued in 2000, called attention to the then mounting body of evidence that showed that oral health has a significant impact on the overall health and well-being of the nation's population. It pointed, for example, to the linkages between chronic oral infections and such health and medical problems as pre-term

births, heart and lung diseases, diabetes, and stroke.

In that groundbreaking report, Dr. Davidatcher addressed the importance of building the infrastructure to address oral health, removing barriers to oral health services, and developing public-private partnerships to address disparities in oral health. But the good news is, change is emerging. While challenging, the work of ensuring that Pennsylvania's disadvantaged children and adults gain needed access to oral health and dental care is being realized.

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Making a Difference:

Improving Access to Oral Health and Dental Care for Underserved Populations

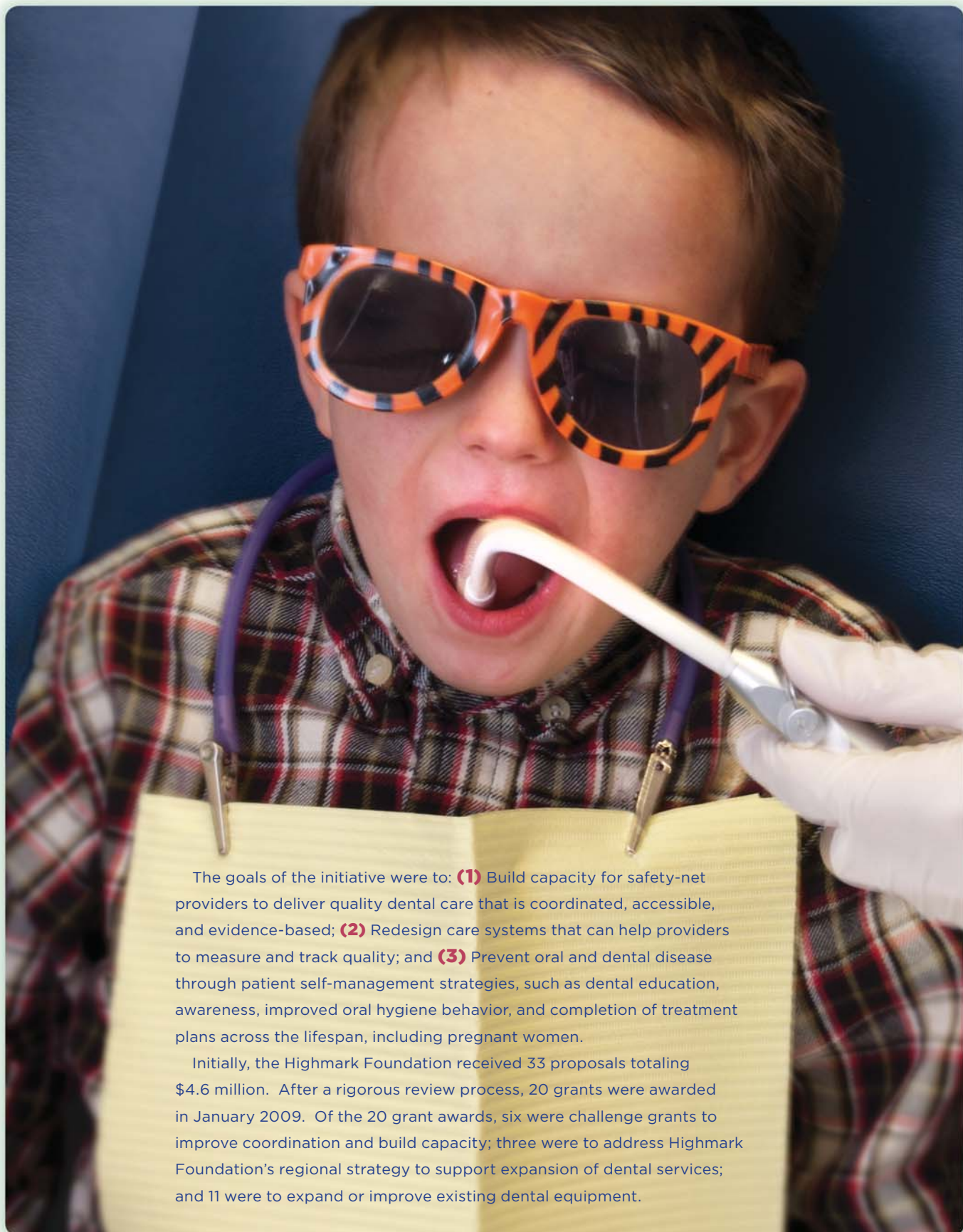
The Highmark Foundation believes that investing in and addressing the oral health and dental care of individuals, as well as the safety-net providers who care for them, will yield tremendous dividends for the state of Pennsylvania. We also know that expanding oral health and dental care access for the underserved is a problem that can be addressed. Promising viable and creative strategies can significantly transform patient's mouths and overall health even at a time when state budgets are strapped and the practices of non-profit dental safety-net providers are bowing under the weight of patient need and the lack of funding and other resources like clinical supplies and modern equipment.

In 2008, the Highmark Foundation issued a Request for Proposals (RFP), Improving Access to Oral Health and Dental Care for Underserved Populations. The RFP was meant to provide funding opportunities to improve the quality of oral health and dental care delivered to the underserved and individuals with special needs.

A total of \$1.87 million in grants from the Highmark Foundation galvanized 20 non-profit dental care safety-net providers from across the state of Pennsylvania. The purpose was to reduce dental health burdens in the region by improving coordination and expanding the capacity among those caring for the teeth and mouths of individuals who can't afford dentists or who can't find dental providers to treat them and their families. The funding opportunity was available to Federally Qualified Health Centers, Federally Qualified Health Center Look-alikes, universities, community health clinics, rural health clinics, health departments, and hospitals with dental clinics interested in building their capacity to serve at-risk populations.

HIGHMARK FOUNDATION GRANTS		
ORGANIZATION	COUNTY	AMOUNT AWARDED
DENTAL EQUIPMENT		
Allegheny Valley School	Allegheny	\$40,000
F.O.R. Sto-Rox	Allegheny	\$56,500
Harrisburg Area Community College	Dauphin	\$50,000
Passavant Memorial Homes	Allegheny	\$75,000
Sacred Heart Hospital	Berks	\$56,566
Schuylkill Medical Center	Schuylkill	\$115,000
Titusville Area Hospital	Crawford	\$100,000
University of Pittsburgh Dental School	Allegheny	\$200,000
Valley Dental Clinic	Crawford	\$57,000
Welsh Mountain	Lancaster, Berks	\$113,718
York Hospital Auxiliary	York	\$200,000
SUBTOTAL		\$1,063,784
CHALLENGE GRANTS		
Family First Health	Adams, York	\$50,000
Hamilton Health Center	Dauphin	\$100,000
Lehigh Valley Hospital and Health Network	Lehigh	\$75,000
The Primary Health Network	Mercer	\$50,000
Sadler Health Center	Cumberland, Perry, Adams, and Franklin	\$100,000
St. Luke's Hospital	Lehigh, Northampton, Schuylkill	\$100,000
SUBTOTAL		\$475,000
REGIONAL COLLABORATION		
Allegheny County Health Department	Allegheny	\$61,000
Cornerstone Care	Greene	\$125,000
East Liberty Family Health Care Center	Allegheny	\$147,500
SUBTOTAL		\$333,500
GRAND TOTAL		\$1,872,284

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The goals of the initiative were to: **(1)** Build capacity for safety-net providers to deliver quality dental care that is coordinated, accessible, and evidence-based; **(2)** Redesign care systems that can help providers to measure and track quality; and **(3)** Prevent oral and dental disease through patient self-management strategies, such as dental education, awareness, improved oral hygiene behavior, and completion of treatment plans across the lifespan, including pregnant women.

Initially, the Highmark Foundation received 33 proposals totaling \$4.6 million. After a rigorous review process, 20 grants were awarded in January 2009. Of the 20 grant awards, six were challenge grants to improve coordination and build capacity; three were to address Highmark Foundation's regional strategy to support expansion of dental services; and 11 were to expand or improve existing dental equipment.

Telling Their Stories: Grantees in the Community

The grantees demonstrated a high level of commitment, compassion, and innovation in their approaches to expanding patient access to oral health and dental care throughout the state. The following four stories provide a glimpse of how they do just that. These grantee stories reflect the compelling work that the 20 safety-net providers are doing in the community, the challenges they face, and how they are meeting the needs of children, adults, and families who consider them dental care lifelines.



Two years ago the Lehigh Valley Hospital-based dental clinic, at 17th and Chew Streets, determined that it would literally take a village and the use of a mobile dental office, if they were to reduce the ranks of the estimated 11,000 children in Allentown, PA, who needed dental care but couldn't afford a trip to the dentist. Access to care outside of Lehigh Valley and the region's Sacred Heart Hospital dental clinics is practically non-existent. Since 2009, Lehigh Valley's new Miles

of Smiles mobile dental clinic, equipped with two treatment rooms, dentists, hygienists, and technicians, rolls daily onto the campuses of four Allentown elementary schools and social service organizations, where low-income children and some adults are treated.

A \$75,000 grant from the Highmark Foundation covered operational supplies for the van and is helping the clinic extend its reach into a region where more than a third of Allentown's residents



Lehigh Valley Hospital and Health Network

CHALLENGE GRANT TO IMPROVE COORDINATION AND BUILD CAPACITY

are Hispanic and where the demand for dental care from uninsured and underinsured patients is exceptionally high, says clinic manager Patricia Atno. Between April 14, 2009, and March 30, 2010, “with the help of the grant, our Miles of Smiles mobile dental clinic and staff treated 1,061 children and 26 adults, for a total of 1,087 patients, at 2,389 patient visits,” adds Atno who is buoyed by the numbers. Clinicians expect to serve an estimated 3,000 patients annually, primarily children.

Success has come from building on the mobile clinic’s community-based approach to developing a primary dental care

system for children. It relies on participation and referrals from the Allentown School District, Lehigh Valley Hospital’s own Children’s Clinic, and a host of other social service organizations and clinics. But for the staff, it’s the transformation of young lives and mouths that get them excited.

A 15-year-old boy who had black front teeth from extensive decay completed his treatment at the mobile clinic with 15 fillings and three extractions. Once the new fillings were placed, he returned to school with pride, wearing a broad new smile and his best suit. Says Atno: “That’s when you know you are making a difference.”



*“With the help of the grant, our **Miles of Smiles** mobile dental clinic and staff treated 1,061 children and 26 adults, for a total of 1,087 patients.”*

— Clinic Manager Patricia Atno



*“Last year, the **Allegheny County Health Department** visited 38 Head Start sites and provided more than 1,000 children with free care.”*



The Allegheny County Health Department determined it needed to do more to expand preventive oral care to children. For the past 13 years, ACHD dental care providers have applied a dental sealant that prevents cavities to

more than 8,000 second- and sixth-grade students’ teeth. Still, more outreach was necessary because almost 38 percent of those treated already had cavities, and, in some cases, advanced gum diseases.

A \$62,000 grant from the Highmark Foundation enabled Dr. Larry Kanterman, Dental Associate at ACHD, to join forces with Head Start, a childcare program for low-income families with 57 sites countywide. The grant fostered a web of collaboration between community social service centers and health providers to give children as young as three a protective fluoride varnish. The grant purchased a

portable dental light and chair, and hand puppets for oral health education sessions performed by University of Pittsburgh School of Dental Medicine hygiene students—as well as new toothbrushes, coloring books, and informational pamphlets about oral hygiene for the goodie bags each child receives.

Last year, the collaborative visited 38 Head Start sites and provided more than 1,000 children with free care. This year, Kanterman says, they plan to send out close to 2,000 permission slips—critical to inform parents of the services—visit all 57 sites, at least twice, reaching 90 percent of all Head Start children. In the

library of McCleary Early Education Center of Lawrenceville, one of the preschoolers, Andre, exclaims, "There's a dentist in the book room!"

He's showing a dental hygiene student how to brush on a stuffed animal. She asks him if he's been to a dentist before. Andre says no, like most of the other children.

One by one, the children pass painlessly through the exam and varnish, and return to class. But Farhiya, the daughter of Somali immigrants, has deep cavities in several teeth. She's one of 205 children with dental needs and she must see a dentist right away.

In low-income families, Kanterman says, oral health problems can go overlooked for years if children don't have adequate access to dental care. This is particularly true for local families, like Farhiya's, who've

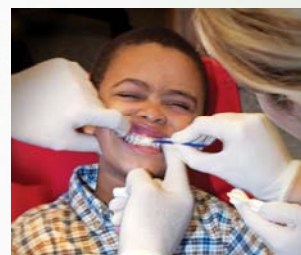


emigrated from war-torn nations like Somalia or Sudan, where dental care is inaccessible.

Dr. Kanterman will call her family himself to advise and to refer Farhiya to one of ACHD's free dental clinics where she can be treated.

Her parents will know the status of their daughter's oral health—and their options for treatment.

That's the goal: fostering collaboration, enabling dentists to travel site-to-site, and providing education to get more children in Allegheny County better preventive dental care.





"Titusville Area Hospital Dental Health Service's staff strives to bring dignity, compassion, and health education to this population."

Hampered by an ailing and inadequate mobile dental van that left more than 4,000 of the elderly and those with special needs at the mercy of a temperamental wheelchair lift, staff pressed for storage space, and patients without the provision of modern dental equipment and sometimes no heat, the Titusville Area Hospital Dental Health Service (TAHDHS) decided to establish a fixed site in 2009, 15 miles west of the hospital.

Thanks to a \$100,000 grant from the Highmark Foundation, the spacious, new facility is where Dr. Richard Mathieson, D.M.D., F.A.G.D. and his staff can now provide more to those with the least, with the



very best in dental care and state-of-the-art equipment. Mathieson says replacing aging and less efficient hand-held dental tools and large equipment like a digital panorex machine that simplifies the x-ray process, along with expanding and enhancing the clinic's treatment space, "is allowing us to care for more patients, especially those with special needs; employ additional dental health practitioners as well as collaborate with professional and technical schools to expand services."

On a typical Friday, Mathieson and his staff make nursing home rounds. Their patients, some a century old, roll

Titusville Area Hospital Dental Health Service

EXPAND OR IMPROVE EXISTING DENTAL EQUIPMENT

forward in their wheelchairs, shuffle in their walkers or wait their turn for dental care propped up in styling chairs that can spin and lift them in the facility's beauty parlor turned dental office.

During the other four days in the week, Mathieson's staff cares for the mouths and teeth of other special needs patients that no one else will. It's common for high-risk HIV/AIDS patients, pregnant women, those with hepatitis, the mentally ill, developmentally challenged, recovering drug addicts suffering from "methamphetamine mouth," and families and children whose income is more than 300 percent below federal poverty level, to travel up to 150 miles to the clinic in Townville, PA, the nearest dental clinic because they have few options to access oral health services in rural



northwestern Pennsylvania. The scope of services TAH DHS patients received in the past year include restorative (39.61 percent), prosthetic/removal (16.8 percent), and oral surgery (10.99 percent)



demonstrates their lack of oral health over time.

"No one else will see them," says Mathieson whose active patient roster increased from 2,000 to 5,000 since the grant award. And of those patients, 91.3 percent have only Medicaid to cover their oral health care. But despite a patient's ability to pay or circumstance, TAH DHS's six-person staff

strives to bring dignity, compassion, and health education to this population, many of whom suffer from more than decaying teeth and dental abscesses—obesity, alcoholism, and chronic smoking, especially among teenagers, is rampant.



*"The new equipment is a godsend to this **Center** and the people from all over the region who rely on it for care."*



For Doris, a single, working mother from Carnegie, PA, who cared for her disabled son for 40 years, the capabilities at UPSDM were unprecedented when she took him there in 2005. Her son's caretakers continue to take him to the Center, but now with expanded access – and affordable – care for the underserved with special needs, it's mostly a new place.

Thanks to a \$200,000 grant from the Highmark Foundation, UPSDM has acquired equipment to accommodate even more who have special needs, expanding the number of patients treated from approximately 560 in 2009 to more than 1,200 in 2010.

On the third floor of Salk Hall at the University of Pittsburgh's School of Dental Medicine (UPSDM), there is a saving grace for people who need special

care—a full-scale clinic designed specifically for patients with disabilities that most private dentists are unequipped—or unwilling—to handle.

"The new equipment is a godsend to this Center and the people from all over the region who rely on it for care," says Paul Casey, director of development at UPSDM.

For wheelchair-bound patients, the Center is equipped with the Versatilt, a device that locks wheelchairs in place and reclines up to 65 degrees. For patients with obstructed airways or facial deformities, there are specialized cameras and handheld X-ray machines necessary to safely administer care.

The general anesthesia capabilities funded by the grant has made the biggest impact on the Center, says Casey, by expediting treatment and reducing backlogs for appointments. Many of the patients' special needs mean they require sedation during routine dental work, since the buzz of a drill or even slight pain may incite

reactions that could be harmful.

To ensure anesthetized patients have a dignified experience, there is a recovery room equipped with breathing and heart monitors and specialized chairs for swift transport through a private exit, so the patient doesn't have to return to the waiting area to leave.

Most private dentists are unable to manage disabilities like autism, paralysis, or spasticity during a dental visit. So, at UPSDM, dental students and residents provide care—their training is one way to increase the number of future care-providers prepared to treat patients with special needs.



Determining Impact:

To determine and evaluate how our 20 grantees were using the funding they received, the Highmark Foundation conducted a baseline administrator survey questionnaire and a baseline dental staff survey questionnaire administered online in 2009. In 2010, a follow-up online questionnaire was conducted with dental clinic administrators and staff.

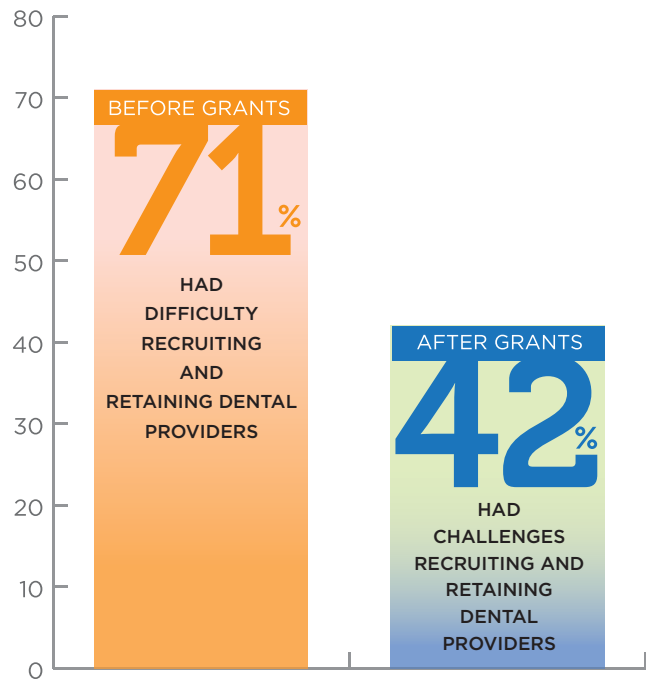
Grantees' responses were analyzed, summarized, and presented using three established metrics: (1) access to care, (2) quality of care and (3) financial sustainability.

The result: the Highmark Foundation Dental Care Initiative met its stated objectives. Outcomes from the grantees showed they were successful in improving the quality of and access to oral health and dental care. The reduction in emergency patient visits, increases in referral rates, and significant decreases in no-show patient rates, are key among the examples of impact the grants have had to date.

The dental providers and their facilities had significant challenges to providing patient care before receiving the grants—71 percent had difficulty recruiting and retaining dental providers.

At follow-up, only 42 percent had challenges recruiting and retaining dental providers. Insufficient funding was also a challenge in providing dental care, providers reported. Since receiving the grant, however, insufficient funding became less of a challenge. Grantees report that they are working to meet these and other challenges. They are already engaged in sustainability efforts and are successfully leveraging the funds that they have received from the Highmark Foundation to maintain new dental equipment, retain newly hired dental staff, and support sharing among dental providers and other dental clinics.

IMPACT THE GRANTS HAVE HAD TO DATE



Thanks to the grant, slightly more than 77 percent of the dental providers said they will be able to sustain the services, patient access, and additional staff hires. Grantees are using a variety of strategies to leverage dollars, including federal grants, fundraising, insurance reimbursement, operating revenues, grants and gifts, outreach efforts, and increasing their productivity.

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Looking Forward

Through grant making, the Highmark Foundation has demonstrated promising solutions to persistent problems. The Highmark Foundation has invested in community health by working together with safety-net providers to increase their capacity to meet the oral health and dental care needs of the uninsured. These dental grants have shown the ability to reduce disparities in oral health care, including identifying dental clinics that have the ability to adopt replicable best practices. Head Start programs are one of the best ways to implement early dental care education, which is replicable and evidence-based. Alternate approaches to dental care and treatment such as expanded scope of practice to allow practitioners to provide a higher level of care have been created and implemented to provide greater access while reducing wait lists. Dental hygienist extender certificate training programs are an option to providing quality care to a greater number of people at rural or remote sites currently without dental professionals. Dental care is moving in this direction.

To reduce the number of missed appointments, electronic integration of medical and dental care allow for coordinated services in one location as a way of providing high-quality, cost-effective dental care to low-income patients.

The majority of families living in Pennsylvania's rural areas—the very young and very old, poor, and isolated—are bearing the brunt of inadequate dental care and oral health access, The Center for Rural Pennsylvania Families found. This describes grantee Titusville Area Hospital Dental Health Service's patient population in northwest Pennsylvania where there are fewer dental providers compared to urban areas and even fewer dental providers who accept Medical Assistance Insurance. Based on an evaluation conducted by the Highmark Foundation, dental grantees are demonstrating that they have the ability to make long-lasting improvements in the oral health of underserved individuals with the power to influence a system of care with far-reaching effects.

Conclusion

Since receiving Highmark Foundation grants, the providers reported seeing 64,461 unduplicated patients and 110,449 duplicated patients.

The 20 grants awarded under the Highmark Foundation's RFP made it possible for the majority of the dental providers to acquire needed supplies and equipment, retain newly hired dental staff, and support the sharing of dental providers with other clinics and/or programs. There were a significant number of positive outcomes. Overall, the goals and objectives of the program were met and progress was made in providing access to oral health care for underserved and low-income populations. Every grantee showed measurable outcomes and the dedication of the administrators and the clinical staff in implementation and reporting is noteworthy. With the support of these grants, dental providers said that they were able to continue meeting their goal of delivering quality dental care to the underserved. Since receiving Highmark Foundation grants, the

providers reported seeing 64,461 unduplicated patients and 110,449 duplicated patients (patient figures are as of August 2010). However, while the Highmark Foundation's investment was significant, this funding represents a beginning—18 months is only enough time for the grants to allow providers to start making improvements in addressing the oral health needs of underserved and low-income populations. Building on their accomplishments since receiving Highmark Foundation funds, **75 percent of the dental providers** indicated that they have applied for other grants on behalf of their dental clinics. More than half of them had either been awarded other grants or were awaiting positive results. The six dental providers who received challenge grants sought and received approximately \$4.5 million in in-kind and monetary awards since the original Highmark Foundation match.

The **Highmark Foundation** is a charitable organization, a private foundation and an affiliate of Highmark Inc. that supports initiatives and programs aimed at improving community health. The Foundation's mission is to improve the health, well-being and quality of life for individuals who reside in the Pennsylvania communities served by Highmark. The Foundation strives to support evidence-based programs that impact multiple counties and work collaboratively to leverage additional funding to achieve replicable models. More information about the **Highmark Foundation** can be found at *www.highmark.com*



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