

# Health Center at Bronx High School Adds Dental Program to Further Serve Low-Income Minority Students

Model comprehensive oral health program for high school students in the Bronx

#### **SUMMARY**

David Appel, M.D., of Montefiore Medical Center and staff at the Montefiore Medical Center School Health Program site at DeWitt Clinton High School in the Bronx, N.Y., established a dental program for students.

The project was part of the Robert Wood Johnson Foundation's (RWJF) national program, *The Center for Health and Health Care in Schools*.

It was a site in a grant program run by the Center for Health and Health Care in Schools called Caring for Kids: Expanding Dental and Mental Health Services through School-Based Health Centers.

### **Key Results**

- The Montefiore Medical Center School Health Program established a dental program at the school-based health center at DeWitt Clinton High School.
- The DeWitt Clinton dental program provided dental care for 1,480 students during April 2003–January 2006. Students had 4,451 visits and received 12,822 dental services.

## **Funding**

RWJF provided \$225,000 for this project from February 2002 through January 2006.

### THE PROBLEM

Most of the people who live in the Bronx, N.Y., where DeWitt Clinton High School is located, are low-income minorities. As of 2001:

• 32 percent of residents were eligible for Medicaid.

- 49 percent of residents had incomes below 200 percent of the Federal poverty level and 28 percent had incomes below the Federal poverty level.
- More than 75 percent of residents were African American, Hispanic or other racial minorities.

The federal Department of Health and Human Services' Health Resources and Service Administration (HRSA) designated about a third of the Bronx as a Health Professional Shortage Area (areas with shortages of primary care, dental or mental health providers).

The need for dental care was especially urgent:

- There was one dentist for every 2,526 people, approximately half the dentist-to-population ratio of the rest of New York City.
- Fewer than half of the dentists (221 of 485) saw at least 25 Medicaid patients per year, and 188 did not see any Medicaid patients.

In 2001, nearly 4,000 students attended DeWitt Clinton High School. Some 46 percent of the students were signed up for health care at the school-based health center at DeWitt Clinton High School, part of the Montefiore School Health Program.

Established by Montefiore Medical Center in 1983, the Montefiore School Health Program provided primary and preventive medical and mental health services, as well as limited dental services, at 11 schools in the Bronx.

In addition to DeWitt Clinton High School, Montefiore Medical Center had school health centers at two middle schools and eight elementary schools. During the 2000–2001 school year, staff of the Montefiore School Health Program provided 48,000 visits to 13,000 children.

The Montefiore School Health Program added preventive dental services at the elementary schools in 1994. The Community Dentistry Division at Jacobi Medical Center, an affiliate of Montefiore Medical Center, provided oral health education, examinations (without x-rays), and protective or preventive treatments (e.g., topical fluorides, dental sealants and resins).

Project staff at Montefiore found that high school students also needed dental services. According to needs assessments and focus groups they ran:

- Teachers, parents and students ranked dental care among the most needed services.
- Of students entering ninth grade at DeWitt Clinton High School who were attending summer school:
  - Nearly 80 percent had not received dental preventive sealants.
  - At least 25 percent had a current dental problem.

— 39 percent said it was difficult to find a dentist.

Montefiore staff had identified a room next to the school-based health center at DeWitt Clinton High School for the dental suite. The New York City Board of Education had agreed to renovate the room, and Montefiore had a grant from New York State's Primary Care Initiative for capital equipment and initial supplies.

The Primary Care Initiative helps hospitals, diagnostic and treatment centers and private practitioners expand preventive and primary care services for low-income New Yorkers and families in underserved areas.

#### CONTEXT

RWJF has invested more than \$40 million since 1972 to develop the school-based health care model. Projects and programs:

- Brought nurse practitioners into elementary schools (*School Health Services Program*; 1978–1984).
- Encouraged local corporations, foundations and other organizations to support community health centers serving the medically indigent (*Community Care Funding Partners Program*; 1981–1987).
- Established health centers in high schools (*School-Based Adolescent Health Care Program*; 1986–1993).
- Supported state-local collaborations to expand comprehensive school-based health services and promote policies to sustain the centers long term (*Making the Grade: State and Local Partnerships to Establish School-Based Health Centers*; 1992 to 2001). See the Program Results Report for more information.

For more information about RWJF's work with school-based health, see "School-Based Health Clinics" in *To Improve Health and Health Care 2000: The Robert Wood Johnson Foundation Anthology*. Also see *The Robert Wood Johnson Foundation Series on Health Policy: School Health Services and Programs*, Lear JG, Knickman JR and Isaacs SL (eds.), San Francisco: Jossey-Bass, 2006.

#### THE PROJECT

The Montefiore Medical Center School Health Program established a dental program at DeWitt Clinton High School in the Bronx. It was a site in a grant program run by the Center for Health and Health Care in Schools called Caring for Kids: Expanding Dental and Mental Health Services through School-Based Health Centers. It was one of seven dental and eight mental health projects organized by school-based health centers funded through Caring for Kids.

The comprehensive program included:

- Oral health education.
- Routine dental assessment.
- Preventive services including dental sealant and mouth protectors.
- Primary care dental services, including restorative dental care.
- Referral to specialty dental care as necessary.

Montefiore built the dental suite within the existing school-based health center. Contractors broke through the wall that separated the room for the dental suite and the rest of the health center to make the dental suite part of the center. They bought equipment for a two-chair dental suite.

Project staff hired a dentist, a dental hygienist and a dental assistant. The dentist, Deborah Sperling, D.D.S., had prior school health experience.

Sperling and the dental hygienist, Venceta Reeves, each worked at the school three days a week. They worked together one day a week and then each worked two different days so that one of them was there every day.

The dental assistant, Roseanne Seymour, worked at the school five days a week. They started seeing patients in April 2003.

Project staff also worked with administrators and teachers at DeWitt Clinton High School to foster acceptance of the new dental program. This included providing information to school staff so that they understood the connection between oral health and school: children with tooth pain are distracted from learning.

Staff also reported the results of the dental program, which showed the number of children served and services provided. Results also showed that students did not miss too much time from school for dental appointments.

## **Challenges**

Project staff experienced many challenges in implementing the dental program, starting with construction delays at the new dental suite, which postponed opening from fall 2002 to April 2003.

The need to bid the project with outside contractors, the selection of a contractor that was slow to complete the work and bad weather all contributed to the delays.

## School Health Leaders' Lack of Experience with Dental Services

Once the new dental clinic was open, the project continued to experience challenges, including one challenge that is common to school-based health centers trying to develop dental programs, according to Julia Lear, director of the *Center for Health and Health Care in Schools*, which managed Caring for Kids.

Lear explained that health center leaders often may not understand the requirements for organizing and managing a *dental* practice in schools. A successful school-based dental practice must provide the necessary services and stay busy seeing patients.

To do this, leaders need:

- Clinical and management tools for handling appointments.
- Clinical processes and procedures.
- Billing and data collection.
- Problem-oriented dental records.
- Dental quality assurance.
- Management information systems.

Leaders of school-based health centers are generally nurse practitioners or physicians. At Montefiore, David Appel, M.D., headed up the school-based health center program and Victor Badner, D.D.S., served as dental director.

Appel left the operation of the dental clinic at DeWitt Clinton High School to Badner, according to Lear. Badner, a public health dentist who was head of the Community Dentistry Division at Jacobi Medical Center, had limited experience in school-based dentistry, according to Lear.

## A Narrow Focus and Lack of Integration with Medical Services

The initial focus of the dental program was too narrow, according to staff at the national program office and RWJF, and it was not well integrated with the medical side of the school-based health center.

Initially, the dental program targeted ninth and eleventh graders. Staff chose to focus on ninth and eleventh graders in order to better evaluate dental program outcomes, making this more a research project than the demonstration project RWJF intended it to be. Although services were available to all students, staff invited only ninth and eleventh graders to be screened and reserved most appointments for them.

Lear and staff from RWJF determined that the focus on ninth and eleventh graders created too many barriers to dental care for other students. They also identified a need to

improve communication with medical staff at the school-based health center and access to dental care through the school-based health center.

In response, the dental team began—and advertised—an open appointment system for dental services for all students. They worked with the medical staff at the school-based health center to include a brief survey of the mouth in all exams, and to promptly refer any child who wanted to see a dentist.

Members of the dental team also attended weekly meetings with the medical staff to facilitate the integration of medical and dental services, such as encouraging medical staff to refer students for dental care.

They also participated in a schoolwide effort to increase student health center enrollment, which included presentations in classrooms and at parent association meetings.

Project staff also had to develop strategies to encourage students to come in for dental care, since high school students were not as willing to do this as elementary school students were. To solve this problem, they started an escort service in which members of the school's Health Occupation Student Association brought students from their classroom to the dental suite.

## A Loss of Dental Leadership

In June 2004, Badner left the project after Montefiore and Jacobi Medical Center severed their relationship. Project staff began a relationship with the dental department at Montefiore; however, this soon fell apart. The project was left with no institutional dental support and no dental leader to guide the dental clinic in its early stage.

"This period was challenging for the school health program in terms of adjusting to the learning curve of coordinating a dental program without the guidance of dental professionals in the dental department and without clear dental leadership," said Appel.

#### A New Model for the School-Based Dental Clinic

Lear suggested that project staff call in dental consultant Murray Rosenthal, D.D.S, an expert in school-based dentistry. A member of the Caring for Kids grant review committee, Rosenthal is the dental director of the Children's Aid Society in New York City.

From 1987 to 1991, he directed the city's Bureau of Dental Health Services. Rosenthal also developed a toolkit for school-based dental programs.

Rosenthal worked with project staff from May to October 2005. He suggested a model of care suited to school-based dentistry and helped project staff develop the necessary

clinical and management tools for managing a school-based dental practice—especially better procedures for appointments, billing and data collection.

Rosenthal also recommended the project focus on caring for children with problems first. "It's vital to identify kids with problems and get them in first," said Rosenthal. "Kids in pain and kids who don't look good have diminished performance."

Appel reported that they were unable to figure out a way to identify the high-need, high-priority children during the course of the grant. However, focusing on these children has remained part of the program's future goals.

## **Other Funding**

The Montefiore School Health Program raised additional funding for the project from New York State through an \$85,000 Primary Care Initiative Grant. New York City's Department of Education paid for construction (estimated at \$75,000).

#### **RESULTS**

Project staff reported the following results to RWJF.

- The Montefiore Medical Center School Health Program established a dental program at DeWitt Clinton High School. Opened in April 2003, the dental program operates five days a week with a dentist, a dental hygienist and a dental assistant. The dental team provides oral health education, screening, preventive services, restorative dental care and referral to specialty dental care.
- The school-based health center dental program at DeWitt Clinton High School program provided dental care for 1,480 students from April 2003 to January 2006. Students had 4,451 visits and 12,822 dental services, including:
  - 2,041 dental exams.
  - 719 dental x-rays.
  - 1,243 preventive services (e.g., cleaning and fluoride treatments).
  - 663 sealants.
  - 275 restorative procedures (e.g., fillings, extractions and root canal).

## **LESSONS LEARNED**

 Obtain stable institutional support in order to sustain, stabilize and grow a school-based dental program. Montefiore lost the institutional support of Jacobi Medical Center in the middle of the project and was unable to establish a relationship

- with the dental department at Montefiore Medical Center. This made it difficult to establish and sustain the dental program. (Project Director/Appel)
- 2. Use different strategies to provide services to elementary and high school students. Project staff found that they needed to persuade high school students to want to come in for dental care, whereas in the elementary school dental program, the students just came in when staff asked them to. Also, it was more disruptive to pull high school students out of one class for a dental appointment than to take elementary school students out of the classroom in which they spend the whole day. (Project Director/Appel)
- 3. **Bring in a dental leader to manage a dental program.** Montefiore is skilled at running school-based health centers, yet project staff found that the dental program really needed a dental leader in order to succeed. "We need a dentist or an oral health expert who takes this on as a project and mission to really fill out the program. We need a discipline-specific expert to lead the program," said Appel. (Project Director/Appel)
- 4. **Persevere when developing new school-based programs.** Project staff knew that it would take time and effort for administrators and teachers at DeWitt Clinton High School to accept the new dental program. By providing information about the connection between oral health and school performance and the results of the dental program, staff members were able to obtain buy-in for the dental program. (Project Director/Appel)

## **AFTERWARD**

The school-based health center at DeWitt Clinton High School continues to provide dental services five days a week. In March 2006, Montefiore opened a second high school dental suite at Bronx Regional High School with similar staffing and service.

As of January 2007, Montefiore staff was working on recruiting a dentist to direct the dental program within the Montefiore School Health Program. Rosenthal continued to consult with project staff on strategy as needed.

**Prepared by: Lori De Milto** 

Reviewed by: Janet Heroux and Molly McKaughan

Program Officers: Judith S. Stavisky and Constance M. Pechura

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