



A Gateway to Health Careers for Urban High School Students

Collaborative front-line and allied workforce development program among high schools, public hospitals and public colleges

SUMMARY

From 2005 to 2011, the [Gateway Institute for Pre-College Education](#) partnered with three public entities in New York City—the Department of Education, the City University of New York and the Health and Hospitals Corporation—to introduce, educate, and prepare urban high school students for careers in the health professions.

Gateway was launched in New York City in 1986 to prepare low-income and minority high school students for college and health and science-related careers.

Key Results

In interviews and reports to the Robert Wood Johnson Foundation (RWJF), project staff cited these results from the Gateway Health Careers project:

- Gateway staff and its partners created a replicable model for introducing high school students to a broad array of health careers, which included health electives, hospital experiences and exposure to college programs.
- Eighty-five students at A. Philip Randolph Campus High School completed the program, which begins in the ninth grade and lasts until graduation, and 85 percent of those indicated they were interested in health careers. Most planned to attend a senior college to accomplish their health career goals (72% of the 2010 class and 59% of the 2011 class).

Funding

RWJF supported this project from December 2005 to August 2011 with two grants to the [Research Foundation of the City University of New York](#) totaling \$497,724.¹ For a list of additional funders, see the [Appendix](#).

CONTEXT

As the demand for health care increases with an aging population, the need for a diverse workforce well-trained in emerging medical technologies becomes more urgent. Many of the jobs in growth areas such as medicine, nursing, medical and surgical technology, and rehabilitation require a highly educated workforce, especially one that is well versed in science, mathematics, and communication skills.

The need stands in sharp contrast to the ability of many urban school systems to graduate adequately prepared students, according to Morton Slater, PhD, who directs the Gateway Institute and is project director of the initiative described in this report.

Gateway was launched in 1986 in response to concerns that so few minority students from low-income families had the educational foundation to pursue careers in medicine and science.² In collaboration with the New York City Board of Education, Gateway now offers a four-year program in 19 New York public high schools (plus one in Boston) that begins in ninth grade. Class sizes are small, the instructional day and school year last longer than traditional programs, and enrichment activities and summer internships are offered.

According to Slater, 97 percent of Gateway's 8,000 graduates have attended college and 80 percent of them have graduated within five years. Of those students it tracks (about 85% of its graduates), 10 percent have attended medical school. Slater estimates that some two-thirds of Gateway graduates have gone on to scientific, technical, or medical careers.

RWJF's Interest in This Area

Gateway had previously received support under the *Health Professions Partnership Initiative*, an RWJF national program co-sponsored by the [W.K. Kellogg Foundation](#). From 1995 to 2005, the program engaged academic health centers to create partnerships

¹ Grant ID# 55657 (\$87,372, December 2005 to March 2006) and Grant ID# 57192 (\$410,785, September 2006 to August 2009)

² The nonprofit organization was founded in 1986 as the Gateway to Higher Education, with funding from the New York City Board of Education, New York State's Science and Technology Entry program (STEP) and the Aaron Diamond Foundation. In 2001, it formally affiliated with the City College of the City University of New York and changed its name to the Gateway Institute for Pre-College Education.

with local school districts, colleges and community organizations to enhance the academic preparation of minority students and nurture their interest in health careers.

In 1997, under the program, Mount Sinai School of Medicine, in partnership with Gateway, established the Life Sciences Secondary School, a new public school for grades 7–12 in Manhattan close to Mount Sinai. The school accepted its first students in September 1999, with enrollment focused on East Harlem and other northern Manhattan communities. Around 2002, Mount Sinai and Gateway withdrew from their partnership at the Life Sciences Secondary School. However, they continued their partnership at the Queens Gateway to Health Sciences Secondary School, which includes seventh and eighth grades. For more information on the program, see the [Program Results Report](#).

THE PROJECT

From 2005 to 2011, the Gateway Institute for Pre-College Education worked with educational and health partners in the public sector to design and implement a program to introduce, educate, and prepare urban students for careers in the health professions. Known as Gateway Health Careers, it built on Gateway’s existing model.

Following a six-month planning period, Gateway Health Careers enrolled some 270 ninth-grade students during the course of the grants; 85 had completed the training by the end of the project period. Budget issues, staffing problems and a major construction project at Harlem Hospital Center resulted in considerable cuts in student enrollment. The original plan had called for enrolling 100 students every year.

The Gateway Institute coordinated activities among its partners:

- **A. Philip Randolph Campus High School:** Located in Harlem, adjacent to the medical campus of the City University of New York, A. Randolph Campus High School includes the Medical Professions Academy, a science-based program for students interested in medical careers. Gateway recruited participants from the Academy, 90 percent of whom are Black or Latino.
- **Harlem Hospital Center:** Part of New York City’s public hospital system, Harlem Hospital Center is a 286-bed acute care facility and trauma center located near the high school with a full range of specialty services. The hospital worked under a subcontract with Gateway in the first year of the project.
- **Three colleges within the City University of New York (CUNY):**
 - Hunter College, a senior college that includes a School of Nursing and a School of Public Health
 - Bronx Community College a junior college with technology-focused programs that cover radiology, nuclear medicine, medical laboratories, and pharmaceutical manufacturing

- The Sophie Davis School of Biomedical Education, CUNY’s medical school, which was founded to recruit underrepresented minorities into medicine and to increase services to historically underserved communities

RESULTS

In interviews and reports to RWJF, project staff cited these results of the Gateway Health Careers project:

- **Gateway staff and its partners created a replicable model for introducing high school students to a broad array of health careers, which includes coursework, hospital experiences, and exposure to college programs.** Among the components:
 - Health electives, research projects, and other academic enrichment, as well as college and career planning at A. Randolph Campus High School’s Medical Professions Academy. Each cohort of participating students is assigned to a team of science, math, and English teachers, plus a guidance counselor and a college advisor.

Parents meet regularly with school counselors to reinforce the academic and professional development of their children.
 - Outreach and intern assignments at Harlem Hospital Center, which give students exposure to health care and opportunities to interact directly with the community by participating in projects designed to improve access to health care. During the school year, students work a minimum of two hours, twice a week, in clinical placements—such as observing in an emergency room or participating in screenings at health fairs.
 - Exposure to career options requiring different skills sets and training. For example, Hunter developed 10 interactive workshops focused on opportunities in such fields as nursing, nutrition, physical therapy, audiology, pathology, and public health. Bronx Community College provides opportunities for students to tour laboratory facilities, attend health fairs, participate in workshops and attend open houses to learn more about specific health fields.
 - Tutoring in math and science during the school year by medical student volunteers at Sophie Davis School of Biomedical Education. The tutoring is mandatory for Gateway participants with sub-par academic performance.
 - Field trips, including to the Liberty Science Center in Jersey City, N.J., a DNA laboratory, and Mount Sinai School of Medicine, for its Day with a Scientist program.
- **More than 85 percent of the students who completed the program indicated they were interested in health careers.** Survey results from graduating high school

students who completed the Gateway Health Careers program in 2010 and 2011 also showed that:

- Most planned to attend a senior college to accomplish their health career goals (72% of the 2010 class and 59% of the 2011 class).
- Some students planning to enter senior college were already interested in post-college training for professions such as physician, dentist and health policy researcher (47% of the 2010 class; 26.5% of the 2011 class).
- Some students planned to enter a senior college to pursue training in nursing, physical therapy, nutrition, physician assistance, or hospital management (25% of the class of 2010; 32.5% of the 2011 class).
- Smaller numbers of students planned to enter community colleges to pursue training in radiologic, surgical, pharmaceutical, or laboratory technology, or in nursing and occupational therapy (9.4% of the class of 2010; none in 2011 class).

LESSONS LEARNED

1. **Students interested in health careers often want to be physicians but should be introduced early to other opportunities.** Pre-medical and pre-nursing programs cannot accommodate all of the interested students and dropout rates are high among those who do enroll.

“When they learned about other health care options and the training required to pursue these options, they developed significant interest in careers they had not known about,” said Project Director Slater. Introductions to other health-related fields should start as early as ninth grade.

2. **Budget constraints can limit the scope of a project—but also force planners to learn how to live with less.** Initially, Randolph high school hired a dedicated coordinator for Gateway Health Careers, but this position was eliminated after four months. Subsequently, the person who served as coordinator also had a full complement of teaching and other responsibilities and no dedicated space was available for the project.

Those limitations, coupled with scheduling challenges and the construction at Harlem Hospital Center, meant that Gateway did not realize its full potential, according to project staff. However, staff also pointed out that functioning with fewer resources may be important for long-term sustainability.

3. **Medical students can be valuable mentors and tutors, if the logistical arrangements accommodate their needs.** Scheduling and the location of tutoring sessions should take into consideration their limited availability. (Project Director)

AFTERWARD

Gateway Health Careers continues, with 35 ninth-grade students enrolled in the 2011–2012 academic year. Harlem Hospital Center and the academic partners at CUNY are providing financial support, and Gateway will keep tracking the progress of its graduates, although Slater says efforts in that area suffer from lack of dedicated funding.

Gateway also plans to add A. Randolph Campus High School to the roster of partner schools it supports through the New York State Science and Technology Entry (STEP) program. STEP funds provide for enrichment trips, after-school tutoring, books, and materials.

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Program area: Human Capital

APPENDIX

Additional Funders

- Harlem Hospital Center, \$150,000
- New York State STEP program, \$105,000
- Bristol-Myers Squibb Foundation, \$40,000
- Sophie Davis School of Biomedical Education, \$20,000
- Bronx Community College, \$10,000
- Hunter College School of Nursing, \$10,000