



VA Summer Medical and Dental Education Program Students Don Lab Coats and Try Out Medical School

Summer Medical and Dental Education Program

SUMMARY

The [University of Virginia School of Medicine](#) conducts a free, six-week intensive summer academic enrichment program to help minority and disadvantaged college students compete successfully for admission to medical school.

The university's program is part of the *Summer Medical and Dental Education Program*, a national program of the Robert Wood Johnson Foundation (RWJF).

The University of Virginia is one of 12 sites participating in the program. The curriculum for each site includes:

- Instruction in the basic sciences, communications and study skills.
- Career development assistance.
- Contact with physician role models.

The University of Virginia School of Medicine has participated in the RWJF program every summer since 1989—initially under the name *Minority Medical Education Program* and later *Summer Medical Education Program*. Through 2005, the program was open only to pre-medical students; in the summer of 2006 it will also be open to pre-dental students.

Key Results

The University of Virginia School of Medicine reported the following key results from the first two program iterations.

- 1,968 students participated in the summer enrichment sessions from 1989 through 2005.
- 33.4 percent of program participants through the 2004 session—624 students out of 1,867—had entered medical school by fall 2005.

Funding

RWJF has supported the university's summer enrichment sessions with seven grants totaling \$5,527,700.

THE PROBLEM

African Americans, Hispanics and certain other racial and ethnic minorities have long been underrepresented in medicine and dentistry. Research shows that the shortage of minorities in the health professions limits the access of minority populations to health care. Non-minorities from disadvantaged circumstances, including poverty and rural isolation, also face special challenges to entering the medical and dental professions.

The University of Virginia School of Medicine was committed to increasing the diversity of its own students and medical students in general. In 1984 the school initiated a summer enrichment course—called the Medical Academic Advancement Program—to help undergraduates from disadvantaged circumstances prepare for medical school admission.

From 1985 to 1998, the Health Careers Opportunity Program of the U.S. Department of Health and Human Services also provided financial support for the program. The Health Careers Opportunity Program seeks to increase the number of people from disadvantaged backgrounds in the health and allied health professions.

CONTEXT

One RWJF goal is to assure that all Americans have access to quality health care at reasonable cost. As one strategy for improving access to care among the nation's underserved populations, RWJF has supported many initiatives to increase the diversification of the health professions.

As part of this effort, the RWJF Board of Trustees in 2005 authorized the *Summer Medical and Dental Education Program* to help undergraduate students from minority and disadvantaged groups compete successfully for admission to medical and dental school. The program is the third iteration of a summer enrichment initiative that RWJF launched in 1987:

- The first iteration (1989–2003), the *Minority Medical Education Program*, focused on helping pre-med students only and limited eligibility to members of four racial and ethnic minorities: African Americans, Mexican Americans, Native Americans and mainland Puerto Ricans (Puerto Rican-heritage residents of the continental United States).
- The second iteration (2004–05), the *Summer Medical Education Program*, expanded the program to include non-minorities disadvantaged by economics and other factors. Eleven universities and university consortia participated in these two iterations.

In 2005, RWJF decided to enlarge the program's scope still further to include pre-dental students, starting with the 2006 summer session. Twelve universities are participating in this new iteration. (See [Appendix 1](#) for a list of the institutions.)

THE PROJECT

The University of Virginia School of Medicine has participated in the RWJF six-week intensive summer academic enrichment program since the first summer session in 1989. The school's leaders viewed this program as a way of expanding the reach of its Medical Academic Advancement Program. The University of Virginia School of Medicine is one of the 12 sites in the new *Summer Medical and Dental Education Program*, and has now made its Medical Academic Advancement Program part of the RWJF program.

Since the University of Virginia does not have a dental school, it continues to accept only pre-medical students, as it did under the two earlier program iterations—the *Minority Medical Education Program* and *Summer Medical Education Program*. (Two other participating universities [Duke and Yale] also accept only pre-medical students; the remaining nine sites accept both pre-medical and pre-dental students; see [Appendix 1](#) for a list of all 12 schools.)

RWJF has supported the University of Virginia School of Medicine's summer enrichment sessions with seven grants totaling \$5.5 million (Grant ID#s 013547, 018033, 022670, 026087, 035661, 049853 and 055952).

Participating students receive:

- Instruction in biology, chemistry, physics and quantitative techniques, and the application of those subjects to medicine.
- Classes on learning and test-taking skills, time and stress management, financial planning, writing and other communications skills, and the do's and don'ts of the medical school admission process. Simulated medical school admission interviews and development of the autobiographical essay required of medical school applicants are part of the curriculum.
- Individual academic counseling and a career development program that explores the medical profession and potential educational opportunities. Students also attend a medical school recruitment fair.
- Exposure to the world of medicine through a series of lectures by clinicians and researchers. Topics have included the role of physicians in promoting good health and fact and fiction surrounding addiction. The program also features special lectures by distinguished physicians and researchers. These have included Nobel laureates Sir John C. Kendrew, PhD, Jerome Karle, PhD, and William Lipscomb, PhD.

- Visits to clinical settings, such as an emergency department, radiology department and cardiology clinic, and meeting in small groups with physician mentors, many of them retired faculty, who share the story of their careers.
- Social activities, such as cookouts, receptions and talent shows, and visits to nearby attractions. Frequent destinations are the Kings Dominion amusement park, Thomas Jefferson's home of Monticello and the Blue Ridge Mountains.
- Free campus housing with kitchen facilities, an \$800 stipend to cover food and other expenses, and up to \$200 in travel reimbursement. Medical students live in the dorms and serve as advisers.

In an effort to treat program participants like regular medical school students, students receive white lab coats, which they wear to program functions. Participants also receive *A Road MAAP to the Medical Promised Land: An Advising Manual for Those Planning a Career in the Health Professions*. Program staff established a network of pre-medical advisers and faculty at 24 undergraduate universities and colleges, about half of which are historically African-American, and worked with the network members to develop the manual. (See [Appendix 2](#) for a list of these institutions as of 2004.)

Under the *Summer Medical and Dental Education Program*, the University of Virginia School of Medicine enrolls up to 80 undergraduates a summer who have just completed their freshman or sophomore year. Students must have a grade point average of 3.00 overall and 2.75 in the sciences.

Under the earlier two program iterations—the *Minority Medical Education Program* and the *Summer Medical Education Program*—each university participating in the national program enrolled up to 125 students a summer and accepted college seniors and recent graduates as well as sophomores and juniors.

For the new medical-dental program, RWJF reduced the enrollment target to 80 participants in response to a consensus that recruiting 125 participants was difficult. Although the *Summer Medical and Dental Education Program* also allows the participating medical and dental schools to admit a limited number of academically advanced rising freshmen, the University of Virginia summer program has chosen not to do so.

To recruit applicants, the University of Virginia program staff works with the program's network of undergraduate universities and colleges. At each institution, a faculty member serves as a program representative, publicizing the program through workshops, panel sessions and personal contacts. Up until the late 1990s, the medical school formally contracted with many of these institutions for recruitment services. However, because of the cost of these contracts, the university now uses the network informally.

The University of Virginia School of Medicine's [website](#) contains information about program activities and eligibility criteria. Staff also published two articles in the journal *Academic Medicine* and made presentations at national and regional meetings, annual conferences for minority students and University of Virginia School of Medicine recruitment days. See the [Bibliography](#) for details.

The Association of American Medical Colleges, which runs the national program for RWJF in collaboration with the American Dental Education Association, assists with recruitment. Students apply online through the national program [website](#) maintained by the Association of American Medical Colleges. The applicant chooses up to three program sites and, if accepted by more than one of the three, decides which to attend.

Universities participating in the national program must match their RWJF funding with financial and in-kind support. The annual contribution of the University of Virginia School of Medicine has varied over the years as program costs increased. For the period 2002–05, the school provided \$256,461 a year in cash plus faculty time, library support, building space and other forms of non-cash assistance, according to Moses K. Woode, PhD, the medical school's associate dean for student academic support and strategic programs and director of the summer program since its beginning.

Other Funding

Other support over the years included the State Council of Higher Education for Virginia (\$42,000), Abbott Laboratories (\$10,000), Charles A. Dana Foundation (\$10,000), the Commonwealth Fund (\$10,000) and Pew Charitable Trusts (\$10,000).

In addition, under the *Minority Medical Education Program*, the medical school used its own funds and federal Health Careers Opportunity Program funds to pay for the participation of many disadvantaged students who did not belong to one of the four racial/ethnic groups covered by RWJF's eligibility guidelines in effect at that time.

These additional students—some of them disadvantaged whites from nearby Appalachia—met the program's other eligibility requirements and participated in all program activities. RWJF and the national program office concurred in this arrangement.

RESULTS

The University of Virginia School of Medicine reported the following key results from the first two program iterations.

- 1,968 students participated in the summer enrichment sessions from 1989 through 2005. (This total includes only RWJF-funded participants and not those supported by federal or medical school funds.)

- 33.4 percent of program participants through summer 2004—624 students out of 1,867—had entered medical school as of fall 2005. The calculation excludes the 101 students who participated in summer 2005 because they could not have graduated from college and entered medical school by that fall. The medical school did not collect data on the number of program participants who applied to medical school, and therefore the application success rate—the percent of those applying who were accepted—is unknown.
- At least 11 former participants have become medical school faculty members. This is an indication of the program's impact, according to Project Director Moses K. Woode, PhD. As an example, he cites Ursulla Courtney, MD, an African-American student who attended the program in 1991, got her medical degree at the University of Virginia in 1997, and is now assistant dean for diversity and assistant professor of family medicine at the university's medical school. Susan Sloan, MD, a 1993 program participant with a Native American heritage, is another example. She graduated from the University of Minnesota School of Medicine in 1998 and became an assistant professor of internal medicine and the associate residency program director at the East Tennessee University James H. Quillen College of Medicine.
- The summer enrichment program increased participants' self confidence. The summer session strengthens students' academic knowledge, communications skills and understanding of the medical school admission process, but more importantly, it gives participants a greater sense of assurance that they can get into—and succeed in—medical school, according to Woode. "This is the message that the students take with them when they leave: 'Someone believes in me, and I have what it takes,'" he says. "They suddenly realize they can make it to the MD Promised Land." Having participants wear white lab coats like medical school students do is an example of how the program tries to encourage this transformation.
- The summer enrichment program is a valuable recruitment tool for the University of Virginia School of Medicine's regular medical degree program. The summer sessions help interest minority and disadvantaged students in attending the University of Virginia's School of Medicine. As a result, the school's leadership is now committed to continued support of the program as part of the institution's diversification effort, according to Woode.

LESSONS LEARNED

1. **Develop a strategy to fill unexpected faculty vacancies in summer academic programs.** Faculty who commit to participate in the Virginia summer pre-medical program sometimes change plans at the last minute. To deal with that problem, the program staff developed a bank of faculty members willing to be called on in a crunch. (Program Director/Woode)
2. **Use retired faculty members as mentors for summer program participants.** Finding working faculty members to assist the summer pre-medical program as

mentors proved difficult. The staff, however, discovered that retired medical school faculty members living in the Charlottesville area were willing to fill that function. A number of retired professors now supplement active clinicians as mentors. (Program Director/Woode)

3. **Give students a leadership role in programs they participate in.** Participants in the Virginia summer pre-medical program elect a slate of student officers, who meet weekly with the program staff to provide feedback on student interests and concerns and to discuss program activities. One student officer, the vice president for social activities, has a committee that plans social events for the six-week session. When the program first started, the staff planned the social calendar. Now the events are what the students, not the staff, enjoy doing, says Woode, adding, "It's really made a difference." (Program Director/Woode)
4. **Be aware that a large, diverse group of participants in an academic program is likely to have a wide range of needs, and that more specific admission standards may be advisable.** In the 1990s, the University of Virginia summer program had difficulty planning and implementing courses because the participants ranged from incoming sophomores to recent graduates. Some students found the instruction too difficult and others considered it too easy. The staff suggested one possible solution was to enroll fewer students and set more specific academic standards for admission, such as completion of certain coursework. RWJF eventually reduced the number of students at each site to 80 and limited participation primarily to incoming sophomores and juniors. (University of Virginia's September 7, 1994, Progress Report to RWJF)
5. **Make sure there is solid agreement on—and adherence to—rules that prevent program sites from poaching students from each other.** One year an unusually high number of students who had committed to attend the University of Virginia summer enrichment program did not show up. The staff found that some had gone, instead, to other universities participating in the RWJF national program. The result was a meeting at which staff from all the sites agreed to abide by rules that prevent siphoning off students once they have committed to a particular site. (Program Director/Woode)

THE FUTURE

RWJF has committed funding to the University of Virginia School of Medicine medical education program through summer 2009.

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Program area: Human Capital

APPENDIX 1

12 Summer Medical and Dental Education Program Sites

(Current as of the end date of the program; provided by the program's management; not verified by RWJF.)

- Case Western Reserve University Schools of Medicine and Dentistry, Cleveland.
- Columbia University College of Physicians and Surgeons and School of Dental and Oral Surgery, New York.
- Duke University School of Medicine, Durham, N.C. (pre-medical students only).
- Howard University College of Dentistry and School of Medicine, Washington, D.C.
- University of Louisville Research Foundation, Louisville, Ky.
- University of Nebraska Medical Center, Omaha, Neb.
- University of Medicine and Dentistry of New Jersey - School of Medicine, Newark, N.J.
- University of Texas Health Science Center, Houston.
- University of California - David Geffen Schools of Medicine and Dentistry, Los Angeles.
- University of Virginia School of Medicine, Charlottesville, Va. (pre-medical students only).
- University of Washington Schools of Medicine and Dentistry, Seattle.
- Yale University School of Medicine, New Haven, Conn. (pre-medical students only).

APPENDIX 2

Cooperating Undergraduate Institutions, 2004

- Alabama at Birmingham, University of
- Bennett College
- Brown University
- California at Berkeley, University of
- California State University (Los Angeles)
- City College of the City University of New York

- Clark Atlanta University
- Cornell University
- Hampton University
- Langston University
- Lincoln University
- Montclair State University
- Morehouse College
- Norfolk State University
- Oakwood College
- Prairie View A&M University
- Queens College of the City University of New York
- Rochester, University of
- Saint Paul's College
- San Diego State University
- Spelman College
- Stanford University
- State University of New York (Buffalo)
- Temple University
- Virginia State University
- Virginia Union University

BIBLIOGRAPHY

(Current as of date of the report; as provided by the grantee organization; not verified by RWJF; items not available from RWJF.)

Articles

Fang WL, Woode MK, Carey RM, Apprey M, Schuyler JM and Atkins-Brady T. "The Medical Academic Advancement Program at the University of Virginia School of Medicine." *Academic Medicine*, 74(4): 366–369, 1999. Abstract available [online](#).

Lynch KB and Woode MK. "The Relationship of Minority Students' MCAT Scores and Grade Point Averages to their Acceptance into Medical School." *Academic Medicine*, 65(7): 480–482, 1990. Abstract available [online](#).

Reports

Fang WL and Fox L (eds.). *A Road MAAAP to the Medical Promised Land: An Advising Manual for Those Planning a Career in the Health Professions*. Charlottesville, VA: University of Virginia, 1997.

Grantee Websites

www.medicine.virginia.edu/education/medical-students/office-of-diversity. A section of the University of Virginia Health System website provides information about the purpose, eligibility requirements and curriculum of the Summer Medical and Dental Education Program run by the School of Medicine. Charlottesville, VA: University of Virginia School of Medicine.