



Robert Wood Johnson Clinical Scholars Program

An RWJF national program

SUMMARY

The *Robert Wood Johnson Clinical Scholars Program* provides postdoctoral training for young physicians interested in research and leadership careers in health policy and academic medicine. Clinical Scholars learn to conduct innovative research and work with communities, organizations, practitioners and policy-makers on issues important to the health and well-being of all Americans. Originally authorized by the Board of Trustees in 1972, it is the oldest national program of the Robert Wood Johnson Foundation (RWJF). Since 1978, the Veterans Administration has supported eight scholars each year.

Key Results

As of December 2008, the program had produced 1,081 scholars, 12 were enrolled in the 2006–08 cohort, 27 in the 2007–09 and 29 in the 2008–10 cohort. The [current cohorts](#) are listed on the program's website. Graduates have become:

- Directors of major federal, state and local health agencies and departments (including David Satcher, M.D., appointed U.S. Surgeon General and Assistant Secretary for Health in 1998; Joe Thompson, M.D., M.P.H., Director, Arkansas Center for Health Improvement; and David Carlisle, M.D., Ph.D., the immediate past director of the California Office of Statewide Health Planning and Development and currently President of Charles R. Drew University of Medicine and Science).
- Hospital CEOs (including Gary Gottlieb, M.D., M.B.A., President and CEO of Partners HealthCare).
- Leaders in the fields of health services research and health economics (including Raynard Kington, M.D., Ph.D., former acting director, National Institutes of Health (and now president of Grinnell College), and Robert Dittus, M.D., M.P.H., Albert and Bernard Werthan. Professor of Medicine, chief of the Vanderbilt Division of General Internal Medicine and director of the Center for Health Services Research, Vanderbilt University).

- Foundation executives (including RWJF President and CEO Risa Lavizzo-Mourey, M.D., M.B.A., and Mark Smith, M.D., M.B.A., president and CEO, California HealthCare Foundation).
- Some 179 graduates are full professors, 19 are department chairs, over 100 are vice chairs and division chiefs, 5 are public health and medical school deans; and 40 are members of the Institute of Medicine.

Program Goals and Implementation

The program aims to produce scholarly physician leaders with the understanding and skills necessary to have a major influence on health care policy, and to help create and build the field of health services research and community-based participatory research.

The core curriculum introduces Scholars to basic nonbiological disciplines and methods used in health care research and community-based participatory research along with other courses that reflect each institution's strengths and faculty interests.

In 2002, the program was redesigned and four schools began training Clinical Scholars, a decrease from seven schools in the earlier iteration:

- University of California, Los Angeles (UCLA), School of Medicine
- University of Michigan Medical School
- University of Pennsylvania Health System
- Yale University School of Medicine.

See the program [website](#) for more information on the universities' programs.

Program Leadership

Both the Clinical Scholars Program and the new Career Development Award Program are now under the direction of Desmond K. Runyan, M.D., Dr.P.H., of University of North Carolina at Chapel Hill School of Medicine. For more details on the redesigned *Clinical Scholars Program*, see [Program Redesign](#).

Funding

RWJF's Board of Trustees has authorized more than \$203.1 million to support the program since 1972. The current authorization runs through June 2011.

THE PROBLEM

By the late 1960s, medicine had become a field of subspecialists. It was common, for example, for internists to subspecialize in cardiology, gastroenterology or infectious

disease, for pediatricians to subspecialize in neonatology, for surgeons to subspecialize in orthopedics.

This was in part a logical response to a growing knowledge base in medicine. With an array of new procedures and technologies open to them, physicians tended to sharply focus their knowledge and skills—but this focus was often at the expense of gaining a broad understanding of the overall health care arena.

Meanwhile, the health care system in the United States has grown increasingly complex. The creation of federal programs such as Medicaid and Medicare in the 1960s, the advent of managed care in the 1980s and the continuing challenges of the rising cost of health care and caring for an aging population called for a new generation of physician leaders with a broad perspective on health, health care and medicine.

Researchers, academicians and policy-makers in this new discipline would need to be trained as thoroughly as subspecialists in other disciplines, but with a focus on such issues as:

- The organization and financing of health services.
- The contribution of medical care to overall population health.
- The impact on health care of economic, social and demographic forces—and the relationship among them.

They would also need to work closely with administrators and policy-makers to design and implement new systems of care to take advantage of new knowledge and technology and to address the inevitable social, ethical, economic and legal issues and dilemmas facing American medicine and society.

Prior to the *Clinical Scholars Program*, a physician who was interested in a career that addressed the broader health care issues had few educational choices beyond a year at a school of public health or a stint with the Epidemiology Intelligence Service at the Centers for Disease Control and Prevention (CDC).

No program provided an integrated educational experience devoted to obtaining knowledge and skills in population health, epidemiology, research methods, health care organization, economics and health policy that would be needed by future leaders in medicine.

RWJF PROGRAM HISTORY

RWJF's early involvement in the program is described in four appendices:

- [Appendix 1: 1972–75: Establishing the Program.](#)

- [Appendix 2](#): 1976–79: Refocusing the Program.
- [Appendix 3](#): 1991–93 Assessing the Future of the Program.
- [Appendix 4](#): A chart of the program's history.

2000–03: Another Assessment

In the late 1990s, a number of changes occurred in both the health care environment and in training opportunities for physicians. One major change was that other fellowship programs, particularly those in clinical epidemiology and general internal medicine, appeared to be competing for the same pool of talented residents.

In 2000, RWJF funded researchers from the Institute for Health Policy Studies at the University of California, San Francisco, to conduct a "market survey" assessment of the *Clinical Scholars Program*, to inform a discussion about ways to add value to the program as it came up for renewal in 2002 (ID# 039938).

The assessment consisted of two surveys. The first, fielded in December 2000, queried current and former participants in the program about:

- Why they had applied to the program.
- Their experience in the program.
- Their experience after completing the program.
- How the program affected their careers.
- Their suggestions about possible improvements in the program.

Project staff sent 862 surveys to current and former Scholars. A total of 426 respondents completed and returned the surveys, including 98 from the 1970s cohort, 122 from the 1980s cohort, 161 from the 1990s cohort and 45 from then-current Scholars, for an overall response rate of 49 percent.

The second survey, fielded in 2001, queried medical residents about their interests in fellowship training in general and the *Clinical Scholars Program* in particular. It elicited information from residents about:

- Their career goals and options.
- Whether they were considering applying to a fellowship program after residency.
- If so, the type and characteristics of a fellowship program to which they might apply.
- Personal or other circumstances that will or may affect their career paths.

To avoid biasing the survey in regard to residents' perceptions of the program, the introduction to the survey described it as a survey about "career decisions," and the *Clinical Scholars Program* was mentioned as one type of program to which the resident might want to apply.

Project staff mailed 400 surveys to second-year residents identified through a list obtained from the American Medical Association, and distributed another 5,380 surveys to 1,076 residency directors, asking them to request that their second- and third-year residents complete and return them. The fielding yielded 513 surveys from the targeted respondents (an 8.9 percent response rate).

Findings: Clinical Scholars Survey

The evaluators reported the following findings to RWJF in 2002.

- **Two-thirds of Scholars identified academia as a career goal at the time they were considering the program, with only a very small number identifying other settings such as government or clinical practice.** Respondents said the quality of the program was the most influential factor and that their partner's location was an important personal factor in their decision to apply. A significant majority (74 percent) found jobs in academia.
- **A large proportion of respondents (87 percent) felt that the program met their needs.** Many felt that there were additional unexpected gains, such as superb networking during and after the program. Although a portion of respondents (13 percent) stated that mentoring was an additional unexpected gain from the program, a similar number of respondents felt that mentoring could have been increased.
- **An increasing percentage of Scholars over the decades held jobs while participating in the program, which may reflect the increasing financial pressures as well as the need to keep up with clinical skills.**
- **Overall, 38 percent of Scholars completed additional clinical or research training after they finished the program.**
- **Over time, the proportion of Scholars who indicated that they advanced in their careers as rapidly as they had expected decreased markedly.** In the 1970s, only one in five Scholars expressed disappointment; by the 1990s, however, this proportion had almost doubled to 39 percent. Through the information provided on the curricula vitae that were submitted by Scholars, researchers verified that career advancement appears to have been significantly slower for more recent Scholars.
- **The most commonly mentioned change in the program suggested by Scholars was to increase mentoring.** Smaller percentages suggested the program add a third year and that it display "less bias toward academia."

Findings: Residents Survey

- **The majority of resident respondents (69 percent) had clinical practice as their career goal, with 39 percent stating that they had interest in academia at some time in their career.** When asked about what they saw as possible job options upon completion of residency, 30 percent indicated fellowship, 62 percent clinical practice, 22 percent academics and 10 percent government.
- **Residents receive little information from residency programs regarding fellowship options, with a quarter of the responding residents indicating that they received no information at all.**
- **Most residents who were considering a fellowship were interested in specializing (69 percent), with only a small percentage interested in generalist fellowships.** Some 35 percent of residents stated that they expect to apply for fellowship(s) in their third year of residency; 23 percent of those residents interested in fellowships intended to apply in their second year; 12 percent of respondents stated that they would apply for fellowship within five years.
- **Only 7 percent of the responding residents were considering applying to the *Clinical Scholars Program*, and only 13 percent indicated the RWJF sponsorship was an important indicator of the quality.**
- **Some 84 percent of respondents rated the availability of a mentor as an important attribute of a fellowship program.** Some 78 percent considered the quality of the program as evidenced by its national reputation as important.
- **When asked about personal considerations of those who were not planning to pursue a fellowship, respondents cited family responsibilities as most important, followed by finances and then partner needs.**

PROGRAM REDESIGN

Informed by this assessment survey, RWJF staff, the national program office and training sites, the national advisory committee and outside experts began a process of deliberation to consider:

- Whether the program should be continued.
- If so, what changes should be considered to strengthen the program for the 21st century.

Based on this work, staff determined that the program should strive to:

- Identify and support a somewhat smaller cadre of physicians, but invest more heavily in their training and development.
- Increase the expected productivity and skill set of these Scholars.

- Offer a "ladder" of support through the option of a third year of fellowship support and a competitive career development award.
- Augment Scholars' research training with leadership training.

Program and RWJF staff believed these program elements would attract an even stronger cadre of talented, committed physicians and appropriately equip them for rapid academic and/or leadership advancement in a wide variety of settings.

Program Enhancements

In 2002, the Board of Trustees approved the above changes with an authorization renewal of \$64.5 million beginning in 2005. The cohort of Scholars who begin in the fall of that year enrolled in a program with the following enhancements:

- **Community-Based Participatory Research.** Recognizing the importance of the participation of patients in clinical trials and of consumers in adapting research findings into their own health behaviors, a new paradigm for the conduct of medical research is needed.

No longer can physician-scientists design research studies in a vacuum and expect that subjects will participate and embrace the findings of such research. It is clear that in the 21st century, the public must have input into the conceptualization, design and execution of research studies in collaboration with the medical scientists.

Accordingly, the revised *Clinical Scholars Program* focuses on training of physician scientists to collaborate with the lay public and learn the requisite skills of conducting community-based participatory research.

- **Fellowship Sites** (\$36.25 million). Under this renewal, RWJF launched a new competition for four sites for the program, reducing the number of Scholars trained annually from 36 to 28 (20 supported by RWJF, eight by the Veterans Administration). RWJF provides grants to sites for their core program, as well as funds for Scholars' stipends and expenses.

Beginning with the 2008–2010 scholar cohort, the American College of Surgeons will support one position each year for a deserving surgeon. This will increase the number of scholars trained from 28 to 29.

Each site offers a standardized two-year core curriculum introducing Scholars to basic non-biological disciplines and methods used in health care research; other parts of the curriculum tend to reflect the institution's strengths and faculty interests.

Sites provide special degree programs (such as a Masters in Clinical Investigation) designed to deliver the core competency training, provided that coursework does not detract from the achievement of the Scholars' expected research productivity.

During their two years in the program, Scholars are typically expected to complete at least three research projects, including at least one project collecting primary data.

In addition, Scholars participate in a centralized leadership training program, providing them with both real-world skills for career success and greater insight into their own leadership style. An optional third year may be available on a competitive basis.

To participate, Scholars apply to the national program office and are reviewed by the national advisory committee.

- **Establishment of Physician Faculty Scholars Program** (\$22.5 million). Out of the redesign came a new program, the Physician Faculty Scholars program to establish a competitive three-year, \$300,000 Career Development Award. Under this component, up to 15 three-year grants are awarded annually to support activities of innovative young physicians.

Both graduates of the *Clinical Scholars Program* and others who have completed a research fellowship (or have equivalent experience) may apply. The awards are portable, allowing talented physicians to receive support during the critical period between ending fellowship training and receiving extramural support (grant funding for doing research).

It also allows RWJF to invest in talented physicians who, for a variety of reasons, may not have been able to pursue training through the fellowship component of the *Clinical Scholars Program*.

Moreover, this award program provides support for physicians pursuing innovative community-based action programs that are not typically supported by funding agencies.

This program is starting as RWJF's *Generalist Physicians Faculty Scholars Program* is being phased out. Since 1993, the *Generalist Faculty Scholars Program* has supported the career development of outstanding young faculty in academic departments/divisions of family practice, general internal medicine and general pediatrics; the last class of Faculty Scholars, to finish the program in 2009, was selected in 2004.

- **Leadership Training/Program Office** (\$5.75 million). Beginning in 2005, the *Clinical Scholars Program* offered a centralized leadership training program to Scholars and Career Development awardees, coupled with intensive local training designed by the sites.

The program emphasizes real-world skills needed for success in both academic and nonacademic settings, as well as analysis of personality, leadership style and other dimensions necessary for increasing self-awareness and personal growth.

Further centralizing some program functions, applicants to the *Clinical Scholars Program* apply to the national program office, rather than to the individual training sites. They can list preferences for schools in the application form. The national advisory committee selects the Scholars and, after considering Scholars' preferences, assigns them to the schools. Each site will enroll seven to eight Scholars annually.

THE PROGRAM

Clinical Scholars is a mature program. Many core faculty at the training sites are former Clinical Scholars. As the program moves to institute the new features of the redesign, program staff will be developing standardized curriculum modules that will be used at each of the training sites as well as designing the new career development program.

National Program Office

In 2002, upon the retirement of the national program director, Annie Lea Shuster, the national program office began to make the transition from the University of Arkansas for Medical Sciences in Little Rock, Ark.

It first moved to Stanford University School of Medicine in Palo Alto, Calif. Two grants from RWJF (ID#s 046339 and 047272) funded the transition and preliminary program activities. Iris F. Litt, M.D., a member of the national advisory committee of the RWJF *Generalist Physicians Faculty Scholars Program*, served as the director. Sally Schroeder was the deputy director.

In the spring of 2007, the national program office moved to the University of North Carolina Chapel Hill School of Medicine. Desmond K. Runyan, M.D., Dr.P.H., is the program's director. Kristin R. Siebenaler, M.P.A., is the deputy director. Staff at the national program office:

- Provides technical assistance and direction for the program.
- Assists participating institutions in the recruitment of Scholar candidates.
- Provides administrative support to the national advisory committee in selecting Scholars for appointment and monitors their progress.
- Works with the Committee on Arrangements (appointed by the chair of the national advisory committee) to plan the program's annual national meeting.
- Conducts annual surveys of current and former Scholars in order to update the program's roster and website.
- With national advisory committee members, conducts annual site visits to each training program site.

Staff has also developed standardized curriculum modules that will be used by each of the training sites.

National Advisory Committee

The [national advisory committee](#) consists of 17 members plus two liaisons from the Department of Veterans Affairs.

The president of RWJF appoints members to the national advisory committee. They are generally senior medical school faculty and represent a variety of clinical specialties. They cannot be on the faculty of an institution participating in the *Clinical Scholars Program*.

Members serve two-, three-, or four-year terms and may be reappointed for a second term. The chair of the committee may be appointed for a longer term. The committee members:

- Select Clinical Scholars and monitors the progress of the Scholars and the sites in conjunction with the national program office.
- Provide mentorship to assigned Scholars.
- Make annual site visits. In addition, if there are changes in the leadership of a site's training program or of the institution, staff at the national program office will arrange interim visits to assure that the site remains strong.

The committee on arrangements, appointed by the chair, also works with the national program office to plan the annual national meeting.

Site Awards and Descriptions

In 2002, RWJF announced a competition for the training sites to continue beyond 2005 in the redesigned program. Staff from the Arkansas national program office distributed a Call for Proposals to medical schools and conducted an applicant workshop with representatives from interested schools.

Fourteen schools submitted full proposals. After reviewing the proposals, national program office staff and national advisory committee members made visits to nine sites. Selection criteria included:

- The strength of the faculty's commitment to quantitative and qualitative research.
- The level of their institutional commitment to the *Clinical Scholars Program*.
- The amount and quality of institutional resources available to program faculty and Scholars.
- The institution's capacity for community-based participatory research.

- In the case of existing sites, the institution's track record for producing high-quality researchers.

In late 2002, the national program office selected and announced the four training sites: See [Appendix 5](#) for contact information for each site.

UCLA David Geffen School of Medicine

Project staff developed a two-year training program (with an optional third year for qualifying scholars). The training program includes:

- A specialized track in the School of Public Health culminating in a masters of science degree in health services research. The core academic curriculum includes:
 - Didactic courses within the School of Public Health: 48 credit degree that includes biostatistics, health services study design, health policy courses, and formal course work in the theory and practice of community partnered research.
 - Elective course work within the School of Public Health in cost effectiveness, quality of care and implementation research. Scholars also can pursue graduate level elective course work in the other schools at UCLA to gain expertise in areas that are relevant to their research projects, such as the role of environment and health.
 - Advanced electives in public policy impact (with partner faculty and programs in Washington and Sacramento) and media impact (with partners in UCLA media programs and the local media industry).
- Mentored research, including:
 - An intensive, research collaboration with one of the program's 10 affiliated community programs over the course of the first year, leading to a product that is of value to the community and usually a published paper or equivalent.
 - Advanced research projects leading to one or more papers or equivalent.
- Intensive leadership training, including:
 - Adopt a Scholar Program, in which health care leaders from UCLA invite scholars to join them at important policy-setting meetings.
 - Formal leadership training provided as a component of UCLA's new courses on community-based research.
 - The Community Leadership Mentoring (CLM) Seminar Series introduces scholars to a variety of different health sector leaders ranging from the foundation CEOs to public health officials at the local or state levels. These special guest speakers will talk about their career and the path they paved to their success.

Some speakers may continue to be engaged in the program to provide mentorship and advice for the Scholar.

- Multidisciplinary mentoring, including:
 - A career mentor providing general program support and career development guidance.
 - A research mentor who provides guidance in the scholar's discipline.
 - One or more social science mentors with expertise in the method(s) that the scholar will use in the research projects.
 - A community mentor serving as a liaison between the scholar and the community.
 - These various mentors form the main research project committee to advise the scholar and review project's the community relevance, plans for design, methods, analysis, and dissemination.

University of Michigan Medical School

Project staff developed a two-year training program (with an optional third year for eligible scholars). The training program includes:

- Clinical Scholars can use credits from six new courses to contribute toward a Master of Health and Health Care Research, a new degree program designed specifically to meet the needs of Clinical Scholars.
- A weekly 1.5-hour seminar alternates between presentation of research findings by Clinical Scholars, faculty or invited guests, and presentations about health policy by University of Michigan faculty or invited guests.
- Each Clinical Scholar works with his or her research committee, which monitors the scholar's development and progress through their two-to-three year tenure.
- The development of the Clinical Scholar's research projects during the first year are tightly integrated with the formal courses, starting with a systematic review of the literature, moving to statistical and qualitative analysis, and finally, in the second year, to primary data collection and analysis. Many community-based organizations are available as partners for the Clinical Scholars who wish to do their research projects in the community.
- As a supplement to the centralized leadership development training offered by the national program office, Michigan provides additional leadership training through the medical school and other academic units.
- Each Clinical Scholar has a mentorship committee that includes at least three people: one from the scholar's clinical discipline, one who is a content mentor for the research

the scholar is conducting, and one faculty member from the scholar's core program to provide general program support.

University of Pennsylvania School of Medicine

Project staff developed a two-year training program (with an optional third year for qualifying Scholars). The training program includes:

- A core academic curriculum, including:
 - A Masters of Science in Health Policy Research degree program, with required coursework in qualitative and quantitative study design, biostatistics, economics, and health policy.
 - A linked two-year curriculum in methods in community-based research.
 - Research in progress meetings in conjunction with scholars in the RWJF *Health & Society Scholars* program.
 - Scholar-initiated multidisciplinary research seminar series in selected topics in health and healthcare, involving faculty from the School of Arts and Sciences, School of Education, School of Nursing, Annenberg School of Communication, and Wharton School.
- Research: Scholar-initiated, mentored research experiences developed and conducted in community settings, with the goal of informing interventions and policies relevant to real-world populations.
- Leadership training: A series of experientially based, interactive seminars led by faculty members and guest speakers with leadership roles locally and nationally. Workshops focus on skill building, including negotiation, time management, career mapping, and written and oral communication skills.
- Mentoring: Project staff identified mentors among University of Pennsylvania faculty, community partners and health policy/delivery system leaders. Initial mentor assignments are developed at the start of the program and mentoring teams grow over time as scholar projects develop.

Yale University School of Medicine

Project staff developed a two-year training program (with an optional third year for eligible scholars). The program includes:

- *Curriculum.* The core curriculum includes 5 courses:
 - Biostatistics
 - Clinical and Health Services Research Methods
 - Community-Based Research

- Principles of Health Policy and Management
- Two-year Leadership Seminar

All courses are designed for the specific training needs of Clinical Scholars. Instructors teach in the RWJ Clinical Scholars seminar room. In addition to core course, there are three integrating experiences that demonstrate the application of course work to clinical research and practice settings. These experiences include:

- Seminars in Health Policy and Delivery (SHPD) in which national, state, and local health policy leaders meet with the Scholars. These leaders come from both the public and private sectors.
- Twice a month Research in Progress (RIP) sessions with core faculty, scholar mentors, and all scholars. The RIP provides Scholars the opportunity to test new ideas for research projects, receive mentorship on their ongoing research and presentation skills.
- Community-based research projects where Scholars work collaboratively with community-based health organizations in addressing community health issues over an 18 month period.

These integrating experiences are complemented by other curricular activities:

- Journal Club sessions where Yale faculty are invited to engage Scholars in the critical discussions of published clinical research
- Mentor Lunches where physician and non-physician leaders are invited to have informal conversations about their research interests and career paths
- A writing workshop for 2nd and 3rd year Scholars
- Special topic sessions as new issues emerge in the healthcare field

Upon successful completion of the program and a masters thesis, scholars are awarded a Master of Health Sciences Research (MHS) from the Yale University School of Medicine.

- *Research.* All Clinical Scholars are expected to complete a minimum of 2 manuscripts during the initial two years of the Program. During the projects, Clinical Scholars will:
 - Define a research issue.
 - Develop the research strategy.
 - Design research instruments.

- Implement a project obtaining ongoing mentoring from content mentors, research mentors, program directors and an assigned program advisor. The RIP's also provide another opportunity for research mentoring.
- Submit monthly research progress reports to all program directors for feedback and guidance.
- *Mentorship.* The program provides scholars with mentorship in three areas:
 - General program support—each Scholar is assigned a program advisor from among the program directors who meets with Scholars to design a fellowship research and career development plan and monitor Scholars' progress
 - Research project specific mentors (content and research)
 - Mentor lunches where physician and other health care leaders meet with Scholars over an informal lunch to share research interests and career experiences
 - Health Leadership Mentoring—Interested Scholars are assigned mentors from among a group of health Policy and/or health management in the Northeast.
 - Scholars are encouraged to develop a mentorship team during their fellowship with several mentors who serve various roles-content, methodology, and career, as well as mentors with complementary skills.

Communications

The *Clinical Scholars Program* is mainly focused on training, rather than research productivity. However, many of the research papers produced by Scholars make their way into scholarly publications.

The national program office sponsors a national meeting each year, which offers a platform for Scholars to present their research. Second Year Scholars give poster presentations that are reviewed by program faculty, national advisory committee members, and community partners. Third Year Scholars give presentations during plenary or concurrent sessions.

Abstracts of the papers are printed in the meeting's program, but are not published by the program. Many of the papers later are submitted to refereed or peer-reviewed academic journals.

The papers cover a broad range of topics in health services research and health policy. For example, the papers presented at the 2008 meeting included:

- "Increasing the Availability and Consumption of Drinking Water in Public Schools: A Pilot Intervention." Anisha Patel, M.D.. Training site: University of California, Los Angeles.

- "The Impact of Caring for a Child with Asthma on the Health of the Primary Care Giver, A Mixed Method Study." Carla Keirns, M.D.. Training site: University of Michigan.
- Rethinking Primary Care Access for Vulnerable Urban Populations: Geographic Accessibility to Community Health Centers and Primary Care." Giridhar Mallya, M.D.. Training Site: University of Pennsylvania.
- "Does Prioritizing Clinical Practice Guidelines Improve Life Expectancy Compared to Usual Care?" Mehul Delal, M.D.. Training site: Yale University.

The Program's Annual Meeting

The Annual National Meeting also plays a role in the Scholar's professional development. They:

- Hear outside speakers (Guest speakers at the 2008 national meeting included the following: Senator Ron Wyden, J.D., (D-OR); Dr. Harvey Fineberg, M.D. Ph.D., President of the Institute of Medicine; Dr. Mark McClellan, M.D., former Administrator for Centers for Medicaid and Medicare Services; Reed Tuckson M.D., F.A.A.P. (Penn CSP 81–83), Executive Vice President and Chief of Medical Affairs, UnitedHealth Group; and Stephen Fihn, M.D., M.P.H. F.A.C.P. (Washington CSP, 79–81), Chief Quality and Performance Officer at the Veterans Health Administration, spoke at the 2008 meeting.)
- Hear alumni speakers (Examples of alumni speakers at the 2008 national meeting include the following: "Caring for the Uninsured with Prostrate Cancer in California." Mark Litwin, M.D. (UCLA CSP 91–93); "The Effect of Infant TV on Development." Dmitri Christakis, M.D., (Washington CSP 96–98); "Effectiveness of a Supportive Housing Program for Homeless Adults with Chronic Medical Illness." Laura Sadowski, M.D. (UNC CSP 86–88; "The Surgeon General's Vital Mission: Challenges Ahead." Arthur Kellerman (Washington CSP 83–85).)
- Engage in informal common interest session meetings.
- Interact with Scholars and training site directors from different sites, as well as with national advisory committee members, former Scholars, and RWJF staff and Trustees.

The program's [website](#) includes descriptions of the program, downloadable application forms, and links the websites of the training sites. Many of the individual faculty and Scholars also have websites. See the [Bibliography](#) for more details.

PROGRAM RESULTS THROUGH 2008

As of December 2008, the program had produced 1,081 scholars, 12 were enrolled in the 2006–08 cohort, 27 in the 2007–09 and 29 in the 2008–10 cohort. The [current cohorts](#) are listed on the program's website. Graduates have become:

- Directors of major federal, state and local health agencies and departments (including David Satcher, M.D., appointed U.S. Surgeon General and Assistant Secretary for Health in 1998; Joe Thompson, M.D., M.P.H., Director, Arkansas Center for Health Improvement; and David Carlisle, M.D., Ph.D., the immediate past director of the California Office of Statewide Health Planning and Development and currently President of Charles R. Drew University of Medicine and Science).
- Hospital CEOs (including Gary Gottlieb, M.D., M.B.A., President and CEO of Partners HealthCare).
- Leaders in the fields of health services research and health economics (including Raynard Kington, M.D., Ph.D., former acting director, National Institutes of Health (and now president of Grinnell College), and Robert Dittus, M.D., M.P.H., Albert and Bernard Werthan. Professor of Medicine, chief of the Vanderbilt Division of General Internal Medicine and director of the Center for Health Services Research, Vanderbilt University).
- Foundation executives (including RWJF President and CEO Risa Lavizzo-Mourey, M.D., M.B.A., and Mark Smith, M.D., M.B.A., president and CEO, California HealthCare Foundation).
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Clinical Scholars whose profiles are linked to this report include:

G. Caleb Alexander, M.D., M.S.

Assistant Professor of Medicine

University of Chicago Medical Center

Alexander did his residency at the University of Pennsylvania, which was, he says, "a busy, large, tertiary hospital. People would come in very sick, and we would order an incredible number of tests to try to help figure out what was going on. I noticed that

nobody seemed to be considering costs in clinical decision-making for these hospitalized patients," Alexander recalls. "This led me to wonder whether costs would be more frequently considered in the outpatient setting, where prescriptions and other treatments are so common, and often more discretionary as well." Alexander conducted exploratory interviews with outpatient physicians about how they chose therapies and considered costs in medical decision-making. His experiences ultimately led to his *Clinical Scholars* project proposal to examine physician-patient communication about out-of-pocket costs.

As a 2001–2003 Clinical Scholar, Alexander conducted a paired study of 133 area internists and 484 of their outpatients to compare views and practices about discussions of out-of-pocket health care and prescription costs. The results? Though most patients wanted to talk with their doctor about out-of-pocket expenses, only 35 percent of physicians and 15 percent of patients reported ever having discussed them. "Physician communication with patients about out-of-pocket costs may be an important yet neglected aspect of current clinical practice," Alexander and his colleagues concluded. Alexander's findings were considered so significant to the field of clinical medicine that they were published in JAMA in August 2003.

Gretchen Kimberly Berland, M.D.

Assistant Professor, Department of Internal Medicine
Yale University School of Medicine

When Berland enrolled in her residency program at Washington University School of Medicine in St. Louis in 1996, she decided to try a method she had used earlier with teenagers which had resulted in a film shown on TV: she gave cameras to a dozen of her colleagues who filmed a "video diary" of what happened while on call. The resulting half-hour film, called *Cross-Cover*, was later distributed to 150 residency programs nationwide for use as a teaching tool.

In 1999, Berland was accepted into the *Robert Wood Johnson Clinical Scholars Program*. "It has allowed me to pursue an area of work that I would not do otherwise," she says, "presenting the patient's perspective using the visual medium. There is no other fellowship that allowed me to do that."

Berland's second project under the *Clinical Scholars Program* came to her serendipitously, and would mark her as "nontraditional." After watching a conference participant using an electronic scooter, and wondering what her life was like, Berland gave small video cameras to three people who navigate the world in wheelchairs. The footage they produced was so powerful that it became clear that it should be more than an accompaniment to a research paper. The film, *Rolling*, was named best documentary at the Independent Film Project conference for works in progress.

Brendan T. Campbell, M.D., M.P.H.

Assistant Professor of Surgery

University of Connecticut School of Medicine
Connecticut Children's Medical Center

Campbell spent 2000 to 2002 as a Clinical Scholar at the University of Michigan Health System in Ann Arbor, earning a master's degree in public health, and exploring his area of interest-quality of care in pediatric surgery. "As I progressed through my years of training in adult and pediatric surgery, I began to realize that many of the things I was doing in the day-to-day care of surgical patients were not evidence-based. A salient and current example of this would be the use of robotic surgery in pediatric patients. This technology adds significant cost above and beyond traditional minimally invasive surgery, with no proven benefit.

"Surgeons have been behind other physicians in critically evaluating their results. What I found is that there is an enormous opportunity to study certain types of issues related to quality of care in pediatric surgery," he said.

Campbell's most important work as a clinical scholar was on the surgical treatment of pyloric stenosis (a narrowing of the lower part of the stomach). Using administrative data from North Carolina, he demonstrated that pediatric surgeons have better results and fewer complications than adult general surgeons performing pyloromyotomies. "It's not a novel concept, and it is consistent with what has been well described in adults," he says.

Patrick Conway, M.D., M.Sc.

Chief Medical Officer

Office of the Assistant Secretary for Planning and Evaluation

Department of Health and Human Services

As a Clinical Scholar, Dr. Conway conducted research on the quality of care in pediatrics. In the spring of 2007, he completed the *Clinical Scholars Program* and received his master's degree in clinical epidemiology from Penn.

"It was an incredible experience for me," says Conway. "I didn't have a master's in public health. I needed the basic research toolkit-epidemiology, biostatistics, cost effectiveness analysis. You learn very little about these important topics in medical school."

After completing the *Clinical Scholars Program*, Conway accepted a faculty position as an assistant professor at the Center for Health Care Quality and the Division of General Pediatrics at Cincinnati Children's Hospital Medical Center. But in June 2008 he was selected as one of 15 White House Fellows from around the country. "The *Clinical Scholars Program* provided the training I needed to become successful. I was able to work with tremendous mentors," says Conway, whose long-term goal is to become a leader in a health care nonprofit organization or a government agency.

Glenn Flores, M.D., F.A.A.P.

Director, Center for the Advancement of Underserved Children Professor of Pediatrics and Population Health

Director, Pediatric Primary Care Research Fellowship, Department of Pediatrics, Medical College of Wisconsin and Children's Hospital of Wisconsin

Flores, and researchers at Boston University School of Medicine, set out to explore ethnic disparities in a dataset of some 100,000 children drawn from the 1989–1991 National Health Interview Surveys. Instead of looking at ethnicity broadly, they sought to examine the differences among the subgroups—Puerto Rican, Cuban and Mexican—that make up the Latino community.

The results were dramatic: Mexican-American children were the poorest, the least healthy and had the least well-educated parents. And even more surprising, the differences in health status among the Latino ethnic subgroups were at least as pronounced as those between the major racial/ethnic groups. For Flores, the lesson was clear. "Not only do we need to look at all groups," he says, "but within each group there may be interesting and important differences that we overlook because we just cluster everything into a homogeneous group."

Stacy Tessler Lindau, M.D., M.A.P.P., F.A.C.O.G.

Assistant Professor, Departments of Obstetrics and Gynecology and Medicine (Geriatrics), University of Chicago, Pritzker School of Medicine

Taking a hiatus from the delivery room allowed Dr. Lindau to conduct population studies that she hopes may one day will have an impact on clinical practice. "I have become very interested in harnessing the strengths of population samples to get more generalized information about Americans' health," says Lindau. "This is different from clinical research, where we tend to draw subjects from our clinics and there is a limit to our research because we can only study those who come to our care."

In one study, Lindau and colleagues interviewed some 500 women getting Pap test screenings at ambulatory women's clinics. They discovered that the women who read below a ninth grade level were less likely to understand the purpose of the test or to seek proper follow-up care if the results indicated precursors to cervical cancer. Complicating patient comprehension was the fact that physicians tended to overestimate patient literacy, thereby missing opportunities to communicate adequately with lower-literacy women. Such failure in physician-patient communication leaves many women in "a precarious limbo between diagnosis and treatment," Lindau told *Reuters Health* (an internet supplier of health and medical news), as they may not know how to interpret test results mailed days after their doctor's visit.

Lindau credits the *Clinical Scholars Program* with helping her think broadly and creatively about such important research issues. "*Clinical Scholars* offered an environment where I took full advantage of connections to scientists of all kinds," she

says. "I was able to interact regularly with sociologists and economists, in addition to physicians across all disciplines.

Daniel Jon Merenstein, M.D.

Director of Research Programs

Assistant Professor, Department of Family Medicine

Georgetown University Medical Center

Dr. Merenstein focused on the everyday practices and advice embraced in medicine. His research project on Benadryl, diphenhydramine, which is "commonly accepted as effective treatment for sleep problems," Merenstein wrote in a paper published in the July 2006 *Archives of Pediatrics and Adolescent Medicine*. His study demonstrated that at the most commonly used dose, diphenhydramine may play no role in treating infant sleep problems."

The study results reinforce the need for rigorous studies of common primary care interventions and they illustrate that such studies are feasible, says Merenstein. "We have shown that it is possible to conduct quality patient-oriented primary care research in young children to provide parents and physicians with evidence to help them make their decisions," he says.

Merenstein's article received the "Article of the Year" award from the Society of Teachers of Family Medicine in May 2008. Today, Merenstein devotes 70 percent of his time to research at Georgetown University, where he is director of research programs and assistant professor of family medicine. The rest of his professional time is devoted to family practice and seeing patients at a Kaiser Permanente clinic in the District of Columbia.

Eric E. Whitaker, M.D., M.P.H.

Executive Vice President, Strategic Affiliations

Associate Dean, Community-Based Research

University of Chicago

Dr. Whitaker focused on figuring out what kept black men away from health services. He learned that many black men were reluctant to seek medical treatment for fear of being viewed as weak. "When they go into a clinic, they want to feel respected," Whitaker says. "They want to see doctors who look like them and talk like them. They said, 'if we are seen going into a clinic, it would make us feel vulnerable.'" The kind of environment the men wanted, Whitaker realized, was something like a neighborhood barbershop. So when Whitaker opened up "Project Brotherhood: A Black Men's Clinic" in Woodlawn in 1998, the first piece of equipment he bought was not an examination table but a barber chair. Open every Thursday night, the clinic is usually packed. Though Whitaker left the clinic in 2003 to become director of the Illinois Department of Public Health, Project Brotherhood is still going strong.

Clinical Scholars and alumni in the news in the fall of 2008 include:

- **Somnath Saha, M.D., M.P.H.**, a Clinical Scholar alumnus (and Generalist Physician Scholar alumnus) and an associate professor at the Oregon Health and Science University in Portland, Oregon, published a study on medical school diversity in the Sept. 10, 2008, issue of the *Journal of the American Medical Association*. The study found that diversity in medical schools can help better prepare students to care for a diverse patient population. His article received coverage in the *Chronicle of Higher Education* and a number of media outlets, including *U.S. News & World Report*, *Forbes* and *Health Day News* and the *New York Times* blog.
- **Sean Lucan, M.D., M.P.H.**, a 2007–09 Clinical Scholar at the University of Pennsylvania, was featured in a November 11, 2008, article in *Medical News Today* for his study finding that funding to departments of family medicine and family physicians is minimal at the National Institutes of Health (NIH). The study, published in the *Annals of Internal Medicine*, is the most comprehensive examination of family medicine's interaction with the NIH.
- **Peter A. Singer, M.D., M.P.H.**, the director of the McLaughlin Rotman Center for Global Health at the University Health Network and University of Toronto, and a Clinical Scholar alumnus (1988–90), was elected to the Institute of Medicine. His research focuses on the life sciences and the developing world and how technologies move from lab to village. His earlier professional contributions have included improvements in quality end-of-life care, fair priority setting in health care organizations and pandemic influenza planning.
- **Jonathan Klein, M.D.**, a Clinical Scholar alumnus (1990–92) and pediatrician at the University of Rochester, was featured on National Public Radio on November 6, 2008, for his work assessing why teenagers start smoking. He contends that many teenagers start smoking after experiencing a stressful situation-modeling their behavior after characters they watch on their favorite television shows. Other teenagers smoke because their parents smoke.
- A study on patients who fail to understand emergency doctors' and nurses' instructions, conducted by **Kirsten Engel, M.D.**, and her colleagues was featured in the September 16, 2008, *New York Times*. Engel is a Clinical Scholar alumnus (2002–04) and clinical instructor at Northwestern University. The authors found a serious mismatch between what doctors and nurses advised and what patients comprehended. Major media outlets, including the *Los Angeles Times*, *Boston Globe* and *Reuters*, also covered the study, which was published in the July issue of *Annals of Emergency Medicine*.
- **Zachary Meisel, M.D., M.P.H.**, a 2008-10 Clinical Scholar at the University of Pennsylvania and practicing emergency physician, co-authored an article posted Sept. 12, 2008 on Slate entitled, "The Allure of the One-Stop Shop: the Real Reasons Why People Go to the ER When They Shouldn't" and discussed it Sept. 18, 2008, on the

Washington Post website. The article explains that, contrary to popular myth, insured patients are more likely to use emergency rooms than uninsured patients. Many patients resort to the emergency room because they cannot differentiate between a serious and minor health problem, they cannot get in touch with their primary care physician and the emergency room offers more streamlined care compared with visiting a primary care doctor's office and receiving lab work or specialist care.

- **Manya Newton, M.D., M.P.H.**, a 2006–08 Clinical Scholar at the University of Michigan, received major media attention in the *Washington Post*, *USA Today*, *Newsweek*, and the *Newark Star-Ledger*, among other outlets, for her study on emergency room use. Her study, published in the October 2, 2008, issue of the *Journal of the American Medical Association*, found that contrary to popular myth, uninsured patients are less likely to visit the emergency department for non-urgent care than insured patients because of concerns about cost. The article's findings concur with her colleague's Zachary Meisel, M.D., M.P.H.

The *New York Times* ran an editorial on October 30, 2008, contending that Americans should not blame the uninsured for clogging emergency rooms. The Times relied on Newton's study, calling it "provocative." The paper called for an "infusion of money and resources" to remedy the situation. Newton's study also received major media attention last month in the *Washington Post*, *USA Today*, *Newsweek*, the *Trenton Star-Ledger* and other outlets.

- **Craig Pollack, M.D.**, a Clinical Scholar at the University of Pennsylvania, was featured in the October 7, 2008, issue of *U.S. News and World Report* for his survey finding that 43 percent of doctors say they have heard little about consumer-directed health plans and 48 percent said they do not feel prepared to discuss medical budgeting with their patients. The article quotes Pollack as saying: "I think as these plans roll out, it's really important to educate doctors about [them] and about some of the differences between these plans and more traditional models of insurance."
- **Terrence Steyer, M.D.**, a Clinical Scholar (1998–2000) and an assistant professor of family medicine at the Medical University of South Carolina, was recently elected president-elect of the Society of Teachers of Family Medicine at the organization's annual meeting in Baltimore.
- Three former Yale Clinical Scholars have been awarded prestigious Beeson Career Development Awards in Aging Research. They are:
 - **Sarwat Chaudry, M.D.** (2001–03), an assistant professor of medicine at Yale School of Medicine, for her project, "Co-morbidity and Functional Outcomes in Older Patients with Heart Failure".
 - **Susan Hardy, M.D., Ph.D.** (1999–2001), an assistant professor of medicine at the University of Pittsburgh, for her project, "Functional Recovery in Post-acute Care".

- **Joseph Ross, M.D., M.H.S.** (2004–06), an instructor at Mount Sinai School of Medicine, for his project, "Impact of Publicly Reporting Hospital Outcome Measures for Older Adults".

FUTURE CHALLENGES

The *Robert Wood Johnson Clinical Scholars Program*, by virtue of its longevity and the productivity of its graduates, has become an institution. As with any institution, program staff must find the proper balance between continuity and reformation.

The program also must be mindful of the changes that have occurred in academic medicine and in health and health care. Departments in academic medicine, for example, have fewer unallocated resources to support graduating Clinical Scholars in their early years as faculty.

The scholarly disciplines of Clinical Scholars have matured over the years, and asking and answering novel, policy-relevant questions is both more important and more challenging than in the past. Current Clinical Scholars must also navigate more complex career and institutional challenges than in past eras and need new and different skills to advance in their careers.

More fundamentally, the health care system continues to undergo major changes, and the nature of the forces that influence population health evolve as well. These changes, while creating challenges to the program, also create new opportunities for creativity, scholarship and action. The challenge to the *Clinical Scholars Program* is to adapt and evolve appropriately to meet these challenges.

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APPENDIX 1

1972–75: Establishing the Program

(Current as of the time of the grant; provided by the grantee organization; not verified by RWJF.)

RWJF's *Clinical Scholars Program* evolved from a three-year pilot program started in 1969 with funding from the Carnegie Corporation and the Commonwealth Fund and operated at five university medical centers:

- Case Western Reserve University
- Duke University School of Medicine
- Johns Hopkins University School of Medicine
- McGill University McIntyre Medical Sciences Center
- Stanford University School of Medicine.

The pilot program sought to enable young physicians trained in internal medicine to acquire nonbiomedical skills not offered in traditional post-residency training programs, to prepare them to assume research and leadership roles in the health care system.

An additional goal was to use the program as a vehicle to establish the field of health services research as a serious discipline within clinical medicine.

Enter RWJF

As the three-year pilot program was coming to a close in 1972, an endowment from Robert Wood Johnson established RWJF as the largest philanthropy in the nation devoted to improving health and health care.

RWJF encouraged the institutions participating in the pilot program to present to its Board of Trustees a joint proposal to create a national *Clinical Scholars Program*. Approved in October 1972, the *Clinical Scholars Program* became RWJF's first national program.

Like the pilot program, the *Clinical Scholars Program* was designed to train young physicians in the knowledge and skills needed to respond to the emerging problems and opportunities in health care. However, rather than requiring applicants to have been trained in internal medicine, RWJF expanded the program to include physicians from all clinical specialties.

RWJF provided an initial authorization of \$5.9 million to launch the *Clinical Scholars Program* in 1972, including interim funding for the existing projects in the five medical schools.

Program staff at RWJF appointed a National Board of Directors (later renamed the national advisory committee) to oversee the program and select the initial sites, and announced the first national competition for program sites in April 1973.

The program was managed internally at RWJF until May 1996, when RWJF started a national program office, which was run by Annie Lea Schuster, who had managed the program at RWJF as a program officer, at the University of Arkansas for Medical Science. The early grants for program administration were ID#s 001004, 000568, 002017, 005421, 005512, 005946, 006341, and 007906 and totaled \$1,309,634.

Site Selection

More than 70 institutions submitted letters of intent to compete for grants; of those, 20 were invited to present formal proposals for consideration by the *Clinical Scholars Program* board of directors.

After an extensive review process that included site visits, the board selected seven university medical schools for three-year funding to begin in July 1974. The seven sites were:

- Case Western Reserve University School of Medicine
- Johns Hopkins University School of Medicine
- McGill University, McIntyre Medical Sciences Center
- A joint program between the Stanford University School of Medicine and the University of California, San Francisco, School of Medicine
- University of North Carolina at Chapel Hill School of Medicine
- University of Pennsylvania School of Medicine
- Yale University School of Medicine

These sites included all of the institutions that had participated in the pilot program, with the exception of Duke. McGill was allowed to compete for funding even though it was located outside the United States (RWJF's geographic funding region) because it had received funding under the Commonwealth-Carnegie program; no other Canadian medical schools were allowed to compete.

Each selected site proposed to develop a combination of research curriculum and practicum that would aim to produce Scholars capable of functioning both as high-quality

contributors to health services research and as leaders of policy change within and surrounding the nation's health care system.

The initial competition to become part of the program made it clear that there were more institutions capable of developing the *Clinical Scholars Program* projects if funds were available.

Program Expansion

The RWJF Board of Trustees authorized a \$4 to \$5 million expansion of the program in November 1973 and announced a second round of competition the following month. After considering 14 additional sites, in June 1974 the *Clinical Scholars Program* board selected four additional sites, with funding to begin in July 1975:

- Columbia University College of Physicians and Surgeons
- George Washington University School of Medicine
- University of California at Los Angeles School of Medicine
- University of Washington at Seattle School of Medicine

APPENDIX 2

1976–78: Refocusing the Program

(Current as of the time of the grant; provided by the grantee organization; not verified by RWJF.)

By the 1976–77 academic year, 128 Scholars at 11 sites were participating in the program. RWJF staff became concerned that they had expanded the program too rapidly, and that it was becoming too large and diffuse.

Many of the Scholars were also completing portions of residencies during their two-year tenure as Scholars, and RWJF staff thought their attention to the aims of the program might become diluted.

RWJF decided to reduce the number of Scholars receiving awards to 20 per year across all sites so that only 40 Scholars were participating annually. RWJF staff also decided to require Scholars to pursue full-time and concentrated education and research in nonbiological disciplines, with their clinical activities supported only when integral to Scholars' research and training programs.

The national advisory committee and RWJF staff also implemented a national process for recruiting, screening and selecting Scholars, to assure that applicants from institutions without a *Clinical Scholars Program* would have equal opportunity for appointment.

Site Selection

While implementing these decisions, RWJF also determined that only the strongest sites in the program should be continued. During the renewal reviews in 1976 and 1977, four programs were phased out (Case Western, Columbia, George Washington and McGill), leaving seven sites.

In 1979, a fifth was discontinued (Johns Hopkins—which was added as a site again in 1993). From 1979 until 1993, the *Clinical Scholars Program* consisted of the six remaining sites:

- University of California, San Francisco, School of Medicine/Stanford University School of Medicine
- University of California, Los Angeles, School of Medicine
- University of North Carolina at Chapel Hill School of Medicine
- University of Pennsylvania School of Medicine
- University of Washington School of Medicine (Seattle)
- Yale University School of Medicine

See [Appendix 4](#) for a table of participating universities since the program's inception.

Veterans Administration

In 1978, the Veterans Administration began to provide funds for support of additional Scholars and each year supports eight of the Scholars. The national advisory committee selects the Veterans Administration Scholars through the same process as the other Scholars; they also receive the same training and participate fully in all *Clinical Scholars Program* functions.

APPENDIX 3

1991–93: Assessing the Future of the Program

(Current as of the time of the grant; provided by the grantee organization; not verified by RWJF.)

The program continued in this form until the early 1990s when RWJF staff decided its progress should be assessed. In 1991, RWJF awarded a grant (ID# 018143) for this purpose to Mount Sinai School of Medicine in New York City.

The year-long assessment—conducted by John W. Rowe, M.D., then president and CEO of Mt. Sinai Medical Center and now president and CEO of Aetna, and Rashi Fein,

Ph.D., professor of medical economics at Harvard Medical School (now professor emeritus)—proposed to answer the following questions:

- What are the contributions of the *Clinical Scholars Program* to the careers of the Scholars and to the fields in which they work?
- What is the current and likely future demand for individuals with Clinical Scholar training?
- What is the demand by young physicians for Clinical Scholar training?
- How can the *Clinical Scholars Program* be improved? This included considerations of the following:
 - The policy requiring each site to adopt priority areas.
 - The feasibility of linking priority areas to RWJF goals.
 - The expansion or contraction of the number of program sites.
 - The expansion of the *Clinical Scholars Program* fellowship to a (perhaps optional) third year.
 - Policies for encouraging the diffusion of Clinical Scholars more widely within the medical research community.

After reviewing documents and program records, interviewing key informants and conducting information-gathering visits at each *Clinical Scholars Program* site, the assessors concluded that, overall, the *Clinical Scholars Program* was a "tremendous success."

They described it as exceptional in its design, well timed and influential both through the careers of its graduates and through its influence on the training practices of nonparticipating medical centers.

Among other indicators, the reviewers cited an analysis demonstrating that former Clinical Scholars authored nearly one-fourth of all articles written by authors young enough to have been eligible for the program that were published in the journal *Medical Care* from January to September 1991.

Rowe and Fein concluded that the program was serving both academic rigor and the development of physician leaders in a healthy balanced fashion. They cautioned, however, that the balance needed to shift slightly toward the conscious integration of social and behavioral science training, ethics, business training and other intellectual tools likely to assist in the production of Clinical Scholars both willing and able to "make a difference."

Further Changes

As a result of the assessment and in consultation with the national advisory committee, in October 1992, RWJF program staff made five recommendations to the RWJF Board of Trustees:

- Authorize the program for an additional 10 years from the end of the then-current authorization—through 2005.
- Present a review of the *Clinical Scholars Program* to the RWJF Board of Trustees with each new three-year budget request. (While the program was authorized for 10 years, budget requests were made on a three-year cycle.)
- Increase the number of Clinical Scholars selected annually from 20 to 36.
- Increase the number of sites from six to seven.
- Invite the six program sites active at that time to compete to be four of the seven *Clinical Scholars Program* sites, and invite all other medical schools to compete for the remaining three slots.

Site Selection

After the Board of Trustees approved the recommendations, RWJF and program staff initiated an application process that led to selection of the following seven schools:

- Johns Hopkins University School of Medicine (new)
- University of California, Los Angeles, School of Medicine (continuing)
- University of Chicago Division of Biological Sciences, Pritzker School of Medicine (new)
- University of Michigan Medical School (new)
- University of North Carolina at Chapel Hill School of Medicine (continuing)
- University of Washington School of Medicine (continuing)
- Yale University School of Medicine (continuing)

(See [Appendix 4](#) for a table of the schools that participated in the *Clinical Scholars Program* since its inception.)

APPENDIX 4

Clinical Scholars Program History

(Current as of the time of the grant; provided by the grantee organization; not verified by RWJF.)

Years	# of Sites	Sites
Before 1972 (prior to RWJF)	5	Case Western Reserve University Duke University Johns Hopkins University McGill University Stanford University
1972–1975	5	Case Western Reserve University Duke University Johns Hopkins University McGill University Stanford University
1974–1976	7	Case Western Reserve University Johns Hopkins University McGill University University of California, San Francisco/Stanford University University of North Carolina University of Pennsylvania Yale University
1975–1978	11	Case Western Reserve University Columbia University George Washington University Johns Hopkins University McGill University University of California, Los Angeles University of California, San Francisco/Stanford University University of North Carolina University of Pennsylvania University of Washington Yale University
1979–1993	6	Stanford University University of California, Los Angeles University of North Carolina University of Pennsylvania University of Washington Yale University
1993–2005	7	Johns Hopkins University University of California, Los Angeles University of Chicago University of Michigan University of North Carolina University of Washington Yale University
2005–	4	University of California, Los Angeles University of Michigan University of Pennsylvania Yale University

APPENDIX 5

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(Current as of the time of the grant; provided by the grantee organization; not verified by RWJF.)

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World Wide Websites

<http://rwjcsp.unc.edu> provides background information about the program; program, current and former scholar news; information about applying to become a Clinical Scholar, including on-line application; a list of national advisory committee members with photos and bios; a list of Clinical Scholars currently enrolled in the program with photos and bios; program e-newsletter; alumni ambassador resources; downloadable program brochure and call for applications; links to websites of the four participating universities, along with descriptions of their programs; alumni profiles; and program press releases.

PROFILE LIST

The primary goal of the CSP is the development of human capital relating to health services research and policy in the health care community. The Program's real products, therefore, are not its sites, but its alumni. It seems appropriate, therefore, to profile some of those alumni, as a way to make more tangible the kinds of people whom the Program attempts to recruit, and to illustrate the kinds of careers former Scholars tend to seek.

The Scholars whose profiles are linked to the report were not chosen for their celebrity, though most are well known in their respective fields, and some are nationally known. Rather, they were chosen because they reflect (1) the diversity of backgrounds and interests that Scholars bring to the Program, (2) careers at several levels of development, from recent alumni to Scholars at the peak of their career trajectories, and (3) the directions and levels of accomplishment that are representative of both the goals of the CSP and the actual careers of many of its alumni. Some of the profiles are Grantee Profiles and also appear in the Building Human Capital Newsroom/Grantee Profiles.

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