



# Partnerships for Training: Regional Education Systems for Nurse Practitioners, Certified Nurse-Midwives and Physician Assistants

An RWJF national program

## SUMMARY

*Partnerships for Training*, a national program of the Robert Wood Johnson Foundation (RWJF), developed eight regional education systems to increase the number of primary care providers in federally designated [Medically Underserved Areas](#) of the United States.

These regional university-community partnerships that used distance education (e.g., Web- and interactive video-based courses) to educate nurse practitioner, certified nurse-midwife and physician assistant students in underserved areas.

## Key Results

- The eight grantee organizations represented 13 states, 38 academic institutions and one other educational partner, and 74 community partners.
- They enrolled 1,140 nurse practitioner, certified nurse-midwife and physician assistant students from underserved areas and graduated 754 students (as of June 2003). It was expected that the remaining students would graduate by 2005.
- Faculty developed 109 distance-based (primarily Web-based) courses, of which at least 37 were interdisciplinary.
- Some 46 academic institutions and other program participants developed the capacity to train nurse practitioners, certified nurse-midwives and physician assistants from a distance, primarily using online education.
- The assessment conducted by the national program office found that 90 percent of *Partnerships for Training* graduates were practicing in medically underserved areas and if distance education were not available, 70 percent of the *Partnerships for Training* students would probably not have enrolled in their programs.
- National program office staff at the Association of Academic Health Centers in Washington created two Web-based resources, *Building a Practice in Your Home Community*, to help graduates start a practice in underserved communities and

REACH (Resources & Education for Academic Community-based Healthcare), for health professions educators (neither Web resource is still active).

- In addition, the national program office created a model for development and portal for the sharing of "learning objects" among health professions faculty.

The learning objects are stand-alone, student-centered, interactive learning experiences that target individual learning objectives.

- The academic institutions participating in seven of the eight sites continued to provide distance education to nurse practitioner, certified nurse-midwife, or physician assistant students, and many expanded their focus to include other health professionals and create additional programs.

See the [Project List](#) to link to reports on the projects and evaluation.

## THE PROBLEM

In 1994, millions of Americans lived in federally designated [Medically Underserved Areas](#), where access to primary health care services was limited by a shortage of primary care practitioners, an issue important to the Association of Academic Health Centers.

The association is a national, nonprofit organization in Washington that works to improve the health of the people by advancing the leadership of academic health centers in health professions education, biomedical and health services research, and health care delivery.

In addition to physicians trained in primary care, three kinds of primary care practitioners might help meet the need of rural areas:

- Nurse practitioners: registered nurses with advanced training who provide primary care services usually working in collaboration with physicians (e.g., performing physical examinations and diagnostic testing, interpreting findings, prescribing medications, and conducting patient education and counseling). Nurse practitioners practice on their own licenses and in most states are governed by state boards of nursing.
- Certified nurse-midwives: registered nurses with advanced training in obstetrics and gynecology who supervise, care for and advise women during pregnancy, labor and the postpartum period.
- Physician assistants: health professionals licensed to practice medicine with physician supervision. They conduct physical examinations, diagnose and treat illnesses, order and interpret tests, counsel patients on preventive health care, assist in surgery and, in most states, write prescriptions.

Underserved communities have struggled to attract and retain primary care providers. It has been widely acknowledged that there have been enough providers graduating from programs, but most want to stay in more urban areas.

Concerns about schools, income, working hours, cultural activities and opportunities for spouses have been significant barriers to recruitment of providers. If health professions schools have recruited students from underserved areas, they generally expected the students to come to campus.

Although it is more likely that an individual from an underserved area who attends a campus program will practice in an underserved area, few from underserved areas actually return.

The barriers for academic institutions seeking to train providers who would practice in underserved areas were related to the following problems:

- Effective teaching methods that could be employed in cost-effective ways to reach students in their home communities.
- Faculty shortages and limited clinical placements.
- Institutional commitment to supporting long-term strategies to enhance primary care in underserved areas.
- Policy barriers, such as those in Mississippi in which physician assistants were not recognized to practice in spite of Mississippi having health statistics that are worse than some undeveloped countries.

## CONTEXT

Increasing access to medical care has been one of the Robert Wood Johnson Foundation's (RWJF) priorities since its founding in 1972. One of RWJF's strategies to meet this goal is to expand and improve the primary care workforce.

In the early 1970s, RWJF began supporting projects to train nurse practitioners and physician assistants, helping to establish these fields as viable career options.

To train nurse practitioners, RWJF awarded ad hoc grants to six nursing schools to establish primary care training for nurse practitioners at the master's degree level, developed the *Primary Care Training Program for Emergency Department Nurses* to equip rural emergency nurse for their responsibilities in emergency rooms that often did not have a physician on site.

In 1977 RWJF initiated the *Nurse Faculty Fellowships Program* to develop a core of nursing educators who would be able to train nurse practitioners at the master's degree level; 99 fellows completed training.

To train physician assistants, RWJF funded Alderson-Broadus College (West Virginia) and Lake Erie College (Ohio) to create undergraduate physician assistant majors. For more information on these efforts, see Chapter 11 in RWJF's *1998–99 Anthology, To Improve Health and Health Care*.

In the 1980s, RWJF supported national programs to train minority health care professionals and to strengthen the nursing profession. To train minority health care professionals, RWJF initiated two ongoing programs:

- *Summer Medical and Dental Education Program*, a summer enhancement program designed to help minority students compete for medical school acceptance. See [Program Results](#) on the program.
- *Harold Amos Medical Faculty Development Program*, offered to historically disadvantaged physicians who are committed to developing careers in academic medicine, to improving the health of underserved populations, and to furthering the understanding and elimination of health disparities (see [Program Results](#) on the program).

To strengthen the nursing profession, RWJF initiated:

- *Clinical Nurse Scholars Program*, which prepared a cadre of nursing school faculty for careers combining clinical practice, research and management.
- *Strengthening Hospital Nursing: A Program to Improve Patient Care*, which sought to make hospital nursing a more attractive career choice by restructuring medical and support services around the nursing staff.
- *Nursing Services Development Program* and *Ladders in Nursing Careers*, both of which sought to increase the number of nurses by attracting and supporting disadvantaged students and health care workers who wanted to pursue nursing careers (see [Program Results](#) on *Ladders in Nursing Careers*).
- *Colleagues in Caring: Regional Collaboratives for Nursing Work Force Development*, which supported regional efforts to design a continuum of nursing education to prepare entrants in the profession to work in the full spectrum of patient care settings and to serve in a variety of clinical and administrative roles (see [Program Results](#) on the program).
- The *Robert Wood Johnson Executive Nurse Fellows Program* to prepare a select cadre of outstanding nurse executives for leadership roles in clinical service, education and public health (see the [Program Results](#)).

In the early 1990s, RWJF launched a cluster of programs to bring primary care into the mainstream of academic medicine and to attract more medical students to general medicine. These programs included:

- *Generalist Physician Initiative*, which supported medical schools that made a commitment to training generalist physicians. See [Program Results](#) on the program.
- *Generalist Physician Faculty Scholars Program*, which supported the career development of generalist faculty members at medical schools.
- *Generalist Provider Research Initiative*, which supported research on issues such as how to increase the number of generalists, reduce the number of specialists, and attract more physicians to underserved areas (see [Program Results](#) on the program).

In addition, RWJF has supported efforts to increase the number of primary care practitioners in underserved areas. These include three national programs:

- *Practice Sights: State Primary Care Development Strategies* supported state efforts to recruit and retain primary care providers, including physicians and mid-level providers (nurse practitioners, certified nurse-midwives and physician assistants), and to develop and sustain practice sites in underserved areas. See [Program Results](#) on the program.
- The *Southern Rural Access Program*, which seeks to increase access to services in eight rural and underserved southern states (for more information see [Program Results](#)).
- *Reach Out: Physicians' Initiative to Expand Care to Underserved Americans*, which expanded the role of private physicians—working with health departments, hospitals, mid-level practitioners, state agencies and others—in the provision of care to underserved people in their communities. See the [Program Results](#) on the program.

## PROGRAM DESIGN

*Partnerships for Training* was designed to increase the number of primary care providers in medically underserved areas by supporting the development of regional education systems to provide training for nurse practitioners, certified nurse-midwives and physician assistants within their communities.

The premise underlying *Partnerships for Training* was that health care professionals educated in their own communities would remain there to practice after graduation.

*Partnerships for Training* was based on partnerships between universities and communities to facilitate the program development and policy changes needed to foster more supportive education and practice environments for nurse practitioners, certified nurse-midwives and physician assistants.

Community partners included [Area Health Education Centers](#), local hospitals and physicians' practices, health maintenance organizations and other health insurers, local government health agencies and departments, professional associations, and public and private funders.

Each partnership was required to have nurse practitioner, certified nurse-midwife and physician assistant programs.

These programs had to work together to develop an interdisciplinary component in which all students could participate (e.g., shared courses). The partnerships were to use distance education (e.g., Web- or interactive video-based courses) and satellite campuses to bring educational programs to nurse practitioner, certified nurse-midwife and physician assistant students in their communities.

The design of *Partnerships for Training* was unique in several ways. "The idea of getting certified nurse-midwife, physician assistant and nurse practitioner programs to work together on a common program was pretty radical at the time," said Michael Beachler, former RWJF program officer and then the national program director of RWJF's *Southern Rural Access Program*. "There had been historic tension between the nurse practitioner and physician assistant community."

Also, at the time the program began, distance education using the Internet was newly emerging. Few health professions programs were considering use of the Internet to deliver educational programs and the Internet was not yet available in many underserved areas. The technical infrastructure and student-support services delivered online evolved along with the Internet.

The *Partnerships for Training* program built in part on the success of the Community Nurse Education Program created by the Frontier School of Midwifery and Family Nursing in Hyden, Ky., in the early 1990s and supported by RWJF with grant ID#s 001210 and 009118.

The program trains nurse-midwives in their home communities, which are usually rural and underserved, through distance education.

## **THE PROGRAM**

### **National Program Office**

The national program office was housed at the [Association of Academic Health Centers](#), Washington, and led by national program director Jean Johnson-Pawlson, Ph.D., a nurse practitioner and senior associate dean of the Health Sciences Programs at the George Washington University Medical Center in Washington.

The first deputy director was Sally Tom, C.N.M. She was succeeded by Laurie Posey, M.Ed., who was experienced in designing and developing technology-based educational programs and video production.

The national program office held an applicant's workshop, made site visits to applicants and selected projects for funding, developed grantee meetings, coordinated the evaluation process, and represented projects at meetings of national associations of physician assistants, nurse-midwives and nurse practitioners.

### **Technical Assistance and Direction**

National program office staff provided technical assistance to the sites through annual meetings of all grantees, annual (or more frequent) site visits, telephone consultation and a *Partnerships for Training* website.

During the last RWJF grant (ID# 041607, scheduled to end in October 2004), the national program office began to institutionalize its work. As of May 2004, the national program office was working on:

- Adding resources to its Building a Practice website.
- Building alumni and faculty networks.
- Collecting data related to project outcomes.
- Creating a business plan to sustain the technical resource center.

In addition, to create accessible student-centered learning objects for health professions education, RWJF awarded the national program office a program-related grant (ID# 048958) to develop a standardized Web-based repository of learning objects to support online education in the health professions.

The national program office collaborated with other organizations and projects that have been developing learning objects as the next logical step to enhance the quality and efficiency of course development for Web-based learning.

### **National Advisory Committee**

A national advisory committee assisted in site selection, went on site visits, and provided advice to the national program office and project directors on problems that arose during *Partnerships for Training* (see [Appendix 1](#) for members).

## Site Selection and Awards

*Partnerships for Training* supported planning grants and implementation grants. Priority for funding was based on an applicant's ability to include the following features in its project:

- A systematic approach to mid-level provider (nurse practitioner, certified nurse-midwife and physician assistant) education that:
  - Forged links between health professions training institutions and local communities.
  - Encouraged joint ventures between certified nurse-midwife, nurse practitioner, physician assistant and medical education programs to achieve economies of scale.
  - Used a population-based approach to assess the demand and control the supply and distribution of practitioners within the geographic area being served.
- The design of new education models that enabled students to remain in their home communities for all, or most, of their education.
- The development of long-term regional and community-based funding to sustain the projects and provide financial aid for students.
- Faculty development that included the expansion of the ranks of practicing academic faculty and training faculty in the use of long-distance learning technology.
- Student recruitment and placement models that enhance the probability that trainees will practice in underserved rural or urban communities after completing their education.

The national program office received 36 applications and funded 12 planning projects with grants up to \$300,000 for 15-months or two-years (October 1995 to December 1997).

Eight of those sites received funding for implementation projects of up to \$1.5 million for four to six years (January 1997 to December 2003). The eight partnerships represented 13 states, 39 academic institutions and 74 community partners.

Each partnership included two to 10 accredited institutions of higher learning and four to 16 community partners. See [Appendix 2](#) for specific information on each site.

The partnerships were:

- **California Partnerships for Training** (ID#s 028001 and 032606), which was administered by the San Joaquin Valley Health Consortium and included three universities in California and 16 community partners.

- **Delta Health Education Partnership** (ID#s 027992 and 032601), which included six academic institutions in Arkansas, Kentucky, Louisiana, Mississippi and Tennessee and four community partners.
- **Duke University-East Carolina University Partnerships for Training** (ID#s 027955 and 032603), which included two universities in North Carolina and 10 community partners.
- **Greater Detroit Area Partnership for Training** (ID#s 027994 and 032602), which included four universities in Michigan and six community partners.
- **Minnesota Partnerships for Training** (ID#s 027998 and 030883), which included six academic institutions in Minnesota and four community partners.
- **Mountain and Plains Partnership** (ID#s 027993 and 030882), which included seven educational partners in Colorado and Wyoming and 12 community partners.
- **New Mexico Partnerships for Training** (ID#s 027999 and 032605), which included four academic institutions in New Mexico and seven community partners.
- **WisTREC Partnerships for Training** (ID#s 028003 and 030884), which included seven universities in Wisconsin and 15 community partners.

Grantees awarded planning grants that either did not apply for or receive implementation funding were Idaho (ID# 027996), Illinois (ID# 028002), New York (ID# 027997) and Pennsylvania (ID# 028000). See [Appendix 3](#) for a complete list of the sites.

See the [Project List](#) for links to reports on:

- Delta Health Education Partnership
- Duke University-East Carolina University *Partnerships for Training*
- Mountain and Plains Partnership

## The Planning Phase

During the planning phase, project staff and participants spent much of their time establishing partnerships among educational institutions, [Area Health Education Centers](#) and potential local employers (e.g., hospitals and physician offices).

Establishing partnerships among schools included coordinating different academic calendars, sharing tuition and training faculty in developing interdisciplinary courses and distance-based courses, especially Web-based courses.

Project staff also went out to rural and inner-city urban communities, making connections with local Area Health Education Centers and health practices and institutions to discuss

the program and encourage people to refer promising students—most of whom already worked in health care.

Positive relationships with local communities were critical since the universities focused on recruiting students who might otherwise not have thought of returning to school, and local physicians and hospital staff knew people who might be a good fit for the program.

"We were most successful when leadership in the rural hospitals or physician or nursing community targeted men or women and said to them, 'you ought to think about this program. You're bright, you're capable, this program is for you,'" said Mary Champagne, dean of the School of Nursing at Duke University and project director of the Duke University-East Carolina University *Partnerships for Training* program.

Local physicians and hospitals supported student enrollment in the program by serving as preceptors for clinical experiences or as mentors, providing flexible work schedules, financial support and more.

For example, in the Delta Health Education Partnership, several local hospitals and physicians' offices helped pay students' tuition and expenses in return for their promise to work in those communities when they graduated.

Students who needed access to computers when their home computers were not working often received support from their employer, Area Health Education Center or public library.

## **The Implementation Phase**

During the implementation phase, sites began enrolling students, who had to meet at least one of the following criteria to become part of *Partnerships for Training*:

- Live in a state or federally designated [Health Professional Shortage Area](#), [Medically Underserved Area](#), rural county or frontier county.
- Work in a health care position for an organization in or primarily serving clients in the above areas.
- Belong to a federally defined minority or live or work in a historically disadvantaged area.

Partnerships developed educational programs that combined distance education and preceptored clinical experiences.

At the beginning of the project, nearly every partnership envisioned providing distance education through interactive video, in which students would go to a site near their home at a specified time to watch a class through a video monitor.

They could ask questions and interact with the professor. As the Internet evolved and became more widely available, the partnerships began offering online classes, which students could log onto at their convenience.

Web-based classes included online discussion groups and used Web technology to do things that were not always possible in a regular classroom, such as listening to different types of heart beats.

By the end of the implementation phase, all of the partnerships except for New Mexico had switched to Web-based classes; New Mexico *Partnerships for Training* offered classes to students in Portales and Espanola.

All *Partnerships for Training* students periodically traveled to universities for learning experiences that faculty determine would be best done in person, such as physical assessments or learning to suture.

The class time also helped students further develop relationship with each other and their professors and reduced feelings of isolation, according to Nancy Short, an assistant dean at Duke University who helped run the Duke University-East Carolina University *Partnerships for Training*.

Project staff and partners, especially [Area Health Education Centers](#), helped arrange clinical experiences for students near their homes.

During *Partnerships for Training*, many other schools nationwide introduced Web-based courses, which helped to legitimize the program, according to national program office staff.

Accrediting bodies and educational associations also began to focus more on online learning. These factors helped *Partnerships for Training* projects become more quickly recognized as rigorous programs that were as good as traditional on-campus programs, according to National Program Director Jean Johnson-Pawlson.

The national program office received \$35,000 from the Alfred P. Sloan Foundation to conduct two meetings for *Partnerships for Training* participants and nursing programs funded by Sloan with a focus on asynchronous learning (September 2000 and November 2001).

Asynchronous learning allows students to log onto a class from their computer when it is convenient for them and not have to be part of an online experience at a particular time.

## Challenges

The program faced many challenges, in part because it was bringing together two groups that did not normally work together: advanced practice nurses (nurse practitioners and

certified nurse-midwives) and physician assistants, and it was developing a new, fairly untested type of training for health care professionals.

The key challenges included:

- **Concerns about accreditation:** Several universities expressed concerns about jeopardizing their accreditation status by changing their curriculum to meet *Partnerships for Training's* goals. "People were very nervous about accreditation from a couple of perspectives—interdisciplinary and online classes," said Johnson-Pawlson.

They worried "that they wouldn't be accredited and site visitors would not be supportive of these kinds of educational changes. Early in the project we had all three heads of the accrediting bodies come to one of our annual meetings and talk about their organization's perspective on Web-based education and interdisciplinary education.

The basic message from each accrediting body was as long as the curriculum and the evaluation processes are the same it does not matter whether the educational process is through a distance method or on-campus."

- **Delays in putting courses online:** At several sites, faculty members were slow in putting their courses online. Possible reasons for this, according to national program office staff, were:
  - Lack of faculty understanding of how online education could adequately replace classroom education.
  - Lack of pressure to reach out to distance-education students due to ample applications from traditional students.
  - Faculty concern that *Partnerships for Training* students were more academically vulnerable than other students and might not have sufficient academic skills to work more independently.
  - Administrator concern that funds to develop online courses were insufficient.
  - Faculty fear that online education would eliminate some faculty positions.
  - Faculty and administrator concern about the amount of faculty and staff time required to offer distance-based students a high-quality educational experience.
- **Difficulty obtaining program buy-in from physician assistant programs:** Physician assistant programs resisted online learning and seemed to doubt that students could acquire the necessary knowledge and professional socialization without the traditional year-long classroom immersion, according to national program office staff.

Another problem may have been that the national program office did not have a physician-assistant representative; the director was a nurse practitioner and the original deputy director was a certified nurse-midwife. Thus, physician assistant programs perceived *Partnerships for Training* as offering nursing grants, according to national program office staff.

To counteract these problems, the national program director and deputy director worked with the Association of Physician Assistant Programs to encourage physician assistant faculty to accept online learning.

The national program office provided funding from its technical assistance and direction grants for the association to conduct educational seminars at several professional meetings and a three-day workshop on Web-based teaching for physician assistant faculty, which most *Partnerships for Training* physician assistant programs attended.

The association also developed and conducted a Web-based course in online teaching for physician assistant faculty and devoted an issue of *Perspectives on Physician Assistant Education*, its peer-reviewed journal, to online education. Despite these efforts, physician assistant programs remained reluctant to participate in distance learning and only a few developed the capacity to deliver online courses.

- **Nurse practitioner, certified nurse-midwife and physician assistant reluctance to work together:** Even though interdisciplinary coursework was a requirement of program, the impact of the project in this area was not as great as program developers had hoped.

While several projects created lasting interdisciplinary learning experiences, the majority of projects stopped using the interdisciplinary courses, due to lack of support from leadership of the academic institutions involved.

"Sustainability of interdisciplinary education requires the support of leadership. If the leadership is not committed to interdisciplinary education, faculty will follow suit," said Johnson-Pawlson, the national program director.

- **A decrease in national concern about the primary care provider shortage:** During the program, other critical issues in the health system began to surface (e.g., hospitals struggling for solvency) and *Partnerships for Training* students and others began to worry about the job market for primary care providers.

In Colorado, for example, a shortage of registered nurses made the demand for advanced care practitioners seem less immediate.

"There was a huge sea change during the program," said Johnson-Pawlson. "In 1994 there was a shortage of primary care providers and everybody thought primary care would be riding high. That bubble burst by 1998."

People began to question whether there was still a need to train more primary care providers, according to Johnson-Pawlson, who responded that "while interest in primary care ebbed, the number of health professional shortage areas has not decreased."

## Communications

*Partnerships for Training* staff developed a website, which included a Web-based resource center with information about distance education, community-based learning, interdisciplinary education and other topics (the website is no longer active).

Staff published four articles in the *Journal of Asynchronous Learning Networks* and worked with the Association of Physician Assistants to publish "Dedicated Issue: Innovations in Physician Assistant Distance Education," in *Perspectives on Physician Assistant Education*.

Staff published a monograph that described the program and its results and distributed it to *Partnerships for Training* students, graduates, faculty, Association of Academic Health Center members, government agencies and professional associations. See the [Bibliography](#) for details.

## ASSESSMENT

In 1998, RWJF funded the national program office to assess *Partnerships for Training* via a computer-based management information system that tracked the program's progress toward reaching its goals (ID# 024110).

The national program office developed a management information system to track critical, quantifiable information on recruitment of students from underserved areas, use of new methods of training and practice placement of graduates.

To gather information, the national program office conducted three mail surveys of *Partnerships for Training* students, comparable students and *Partnerships for Training* graduates and faculty.

In 2001 and 2002, the national program office surveyed *Partnerships for Training* students and other nurse practitioner, certified nurse-midwife and physician assistant students from the same schools, and *Partnerships for Training* graduates and faculty.

In 2003, the national program office surveyed *Partnerships for Training* graduates.

The 2001 survey generated 687 responses from 404 students (162 *Partnerships for Training* and 242 non-*Partnerships for Training*), 185 graduates (52 *Partnerships for Training* and 133 non-*Partnerships for Training*), and 73 faculty members from 25 educational programs.

The 2002 survey generated 569 responses (from 336 students, 147 graduates and 86 faculty members).

For these two surveys, this was about a 70 percent response rate for faculty and a 30 percent response rate for students and graduates. The 30 percent response for students and graduates limited the ability of the national program office to generalize these results to all *Partnerships for Training* and non-*Partnerships for Training* students enrolled in these programs and it is possible that the respondents represent a biased sample.

However, the national program office staff felt that the surveys represented a substantial subset of *Partnerships for Training* and non-*Partnerships for Training* students from a diverse set of institutions and educational programs.

In 2003, the national program office sent a postcard survey to students and graduates to find out where they were working. Eighty-eight of the 141 respondents indicated a practice setting, with 91 percent practicing in an underserved community.

Those who did not indicate a practice setting were likely students who had not yet completed their programs. In addition, there were 119 comments reinforcing the findings of previous surveys that many students would not have pursued and advanced degree without a distance-education option.

## OVERALL PROGRAM RESULTS

*Partnerships for Training* achieved the following results, according to the national program office:

- **Eight *Partnerships for Training* projects established distance-based programs for nurse practitioner, certified nurse-midwife and physician assistant students.** The partnerships were:
  - California *Partnerships for Training* (ID#s 028001 and 032606).
  - Delta Health Education Partnership (ID#s 027992 and 032601).
  - Duke University-East Carolina University *Partnerships for Training* (ID#s 027955 and 032603).
  - Greater Detroit Area Partnership for Training (ID#s 027994 and 032602).
  - Minnesota *Partnerships for Training* (ID#s 027998 and 030883).
  - Mountain and Plains Partnership (ID#s 027993 and 030882).
  - New Mexico *Partnerships for Training* (ID#s 027999 and 032605).
  - WisTREC *Partnerships for Training* (ID#s 028003 and 030884).

- **The eight partnerships enrolled 1,140 nurse practitioner, certified nurse-midwife and physician assistant students from [Medically Underserved Areas](#) and, as of the fall of 2002, had graduated 754 students with the remaining students projected to graduate by 2005.** These students and graduates were divided as follows:

- 232 nurse practitioner students and 339 graduates.
- 23 certified nurse-midwife students and 98 graduates.
- 81 physician assistant students and 143 graduates.
- 50 combined nurse practitioner/physician assistant students and 143 graduates.

- **Faculty developed 109 distance-based (primarily Web-based) courses, of which at least 37 were interdisciplinary:** Three projects developed interdisciplinary and distance-based courses that nurse practitioner, certified-nurse midwife and physician assistant students could all take and two projects had completely integrated programs

Three projects developed interdisciplinary courses for nurse practitioner and certified-nurse midwife students. The most commonly offered interdisciplinary Web-based courses included:

- Advanced Health Assessment/Physical Diagnosis.
- Advanced Pathophysiology.
- Pharmacology.
- Policy and Leadership.

Examples of other Web-based courses are Emergency Medicine and Nurse-Midwifery Care During Labor and Delivery.

"We showed that these students could not only come together in the same courses because they were generic enough, but the program really brought the disciplines together," said Sue Hassmiller, Ph.D., RWJF program officer.

"In some cases, people in these professions don't know what the other does. It's a big problem in the health professions. We talk about team work. You can't be a team if you don't know what your teammates are doing. Bringing people together in similar education settings help them know each other. And there is more in common in a subject area than we realized."

- **Thirty-eight academic institutions and one other educational partner developed the capacity to train certified nurse-midwives, nurse practitioners and physician assistants from a distance, primarily using Web-based education.** Before *Partnerships for Training*, a few schools delivered some courses through distance education, but only one (Frontier School of Midwifery and Family Nursing) provided an entire program through distance education.

Academic institutions and faculty learned how to develop and implement distance education. Institutions invested in technical staff and instructional design to assist faculty in making the transition to distance teaching. Faculty learned how to become computer and Internet-savvy and how to develop interesting Web-based courses.

"The switch to distance education was a major culture shift," said Johnson-Pawlson. "Faculty members were really based in classrooms where they are experts. That's what they are comfortable with—slides and power point. The thought of teaching future clinicians and not having them within your physical grasp was a very difficult thing to get folks comfortable with."

- **National program office staff created a Web-based resource, *Building a Practice in Your Home Community*, to help graduates start their own practices in *Medically Underserved Areas*.** A major problem for some students who wanted to work in their home communities was that there were no clinical practices for a graduate to move into.

*Building a Practice in Your Home Community* was designed to help nurse practitioners, certified nurse-midwives, physician assistants and others set up and run their own health care practice in *Medically Underserved Areas*.

It contained information about how to start a clinical practice (e.g., personnel, facilities, organizing care, writing a business plan, billing and raising capital), as well as stories and lessons learned from nurse practitioners, certified nurse-midwives and physician assistants who own or manage practices.

In addition, for every aspect of starting a practice there were concrete resources such as a template for creating physical space, doing a community assessment and calculating potential income with Medicare, Medicaid and insurance rates factored into a program (the Web-based resource is no longer active).

- **National program office staff developed a Web-based resource, *REACH (Resources & Education for Academic Community-based Healthcare)* for health professions educators.** REACH included:
  - An online database of information and resources to support interdisciplinary curricula, academic health-center transition to online education and new ways of working more closely with underserved communities. The database included resources from *Partnerships for Training* at the Association of Academic Health Center and Center for Interdisciplinary, Community-based Learning projects, as well as other sources.
  - Quality Standards for Learner-Centered Online Instruction, an evaluation instrument for online educational materials that provided criteria for evaluating the overall quality of online courses especially regarding their ability to engage students in learning through interactive strategies.

- Raising the Bar: Standards and Strategies for Learner-Centered Online Instruction, a toolkit with practical guidelines and strategies to assist faculty in creating online courses (The Web-based resource is no longer active).
- **National program office staff developed the LO Down, a portal of learning objects to support health professions educators.** As of August 2004, the learning object portal included 50 learning objects that faculty nationwide could use in developing online courses.

Examples included:

- A case-based learning activity in which students are challenged to assess and motivate a patient to quit smoking.
- A video demonstration of providing step-by-step instructions for mixing insulin.
- An online tutorial on the nursing process.
- **Universities and communities forged new relationships, which fostered recruitment of students who would work in Medically Underserved Areas after graduation.** *Partnerships for Training* sought to reach students who might not otherwise return to school because of family and career obligations and distance from a university.

To identify these students and set up a support system for them, university staff had to convince people in underserved communities (e.g., hospital administrators and physicians) that the community would benefit by supporting student recruitment in the program. [Area Health Education Centers](#) were a key intermediary between universities and communities.

This approach was a departure from the typical approach of many universities in working with communities, in which they would send out a brochure and hope for referrals, according to Johnson-Pawlson.

## Assessment Findings

As reported in the *Partnerships for Training* assessment conducted by the national program office:

- **Ninety percent of *Partnerships for Training* graduates were practicing in Medically Underserved Areas.** Seventy-three percent of graduates were practicing in rural underserved areas, 12 percent were practicing in the inner city, five percent were working in other underserved areas, 8 percent worked in non-underserved areas and 2 percent were not practicing. (2003 survey)
- **About two-thirds of *Partnerships for Training* students and graduates said that it was very likely that they would be practicing in their community in five years compared with about 37 percent of other nurse practitioner, certified nurse-**

**midwife and physician assistant students at the same schools.** (2002 survey) This finding demonstrates that educating people in their home community, particularly those in underserved areas, can create a primary care workforce that is likely to stay where they are.

- **The grade point average (GPA) and pass rate on national certification exams was virtually identical for *Partnerships for Training* and other nurse practitioner, certified nurse-midwife and physician assistant graduates from the same schools.** The GPAs for *Partnerships for Training* and other graduates were 3.70 and 3.74, respectively. All *Partnerships for Training* graduates and 97 percent of other graduates passed their certification exam. (2002 survey)
- **Some 74 percent of *Partnerships for Training* graduates said that the overall quality of Web-based education was better than or equal to on-campus learning.** For example, 78 percent of *Partnerships for Training* students said that their involvement with the course was equal to or better than on-campus learning, and 42 percent of *Partnerships for Training* students said that their interaction with other students was equal to or better than on-campus learning. (2002 survey)
- **If distance education were not available, 70 percent of the *Partnerships for Training* students would probably not have enrolled in their programs.** (2002 survey)
- **Most faculty thought that Web-based courses were as good as or better than on-campus teaching in some areas:**
  - Student participation (85 percent).
  - Time flexibility (82 percent).
  - Ability to assess students' analytic thinking (81 percent).
  - Opportunity to be creative (79 percent). (2002 survey)

## LESSONS LEARNED

1. **When trying to implement a major change, make sure that all parties involved first agree that they want to make the change.** *Partnerships for Training* required different academic disciplines (certified nurse-midwife, nurse practitioner and physician assistant programs) to collaborate on courses. The program experienced problems gaining faculty commitment to interdisciplinary education.

Without making sure that everyone agreed on the overarching goal, people tended to get bogged down in the details, such as class and clinical rotation schedules. "If you can figure out your commitments and you want to do it, you can do it," said Johnson-Pawlson. "If you don't know why you want to do it, you are going to find reasons not to do it." (National Program Director)

2. **Leadership is crucial to the success of innovative national programs.** Universities that did not have strong support from leaders involved in *Partnerships for Training* had difficulty implementing distance-based learning, which required a change in culture. Not every institution should take on cutting-edge innovations. (National Program Director)
3. **Giving people a challenging task to accomplish diminishes their differences.** *Partnerships for Training* bridged many divides, including those between educational programs at the same institution, between disciplines and between institutions. Having to collaborate extensively in order to accomplish tasks, rather than for the sake of collaboration itself, seemed to make it easier to bridge those divides. (National Program Director)
4. **Community partners can break through academic logjams in a project.** Community partners were less enamored of academic regulation and more focused on outcomes, and thus engendered a "can-do" attitude and more flexibility than academic partners. For example, the North Carolina project had strong participation from local [Area Health Education Centers](#) and community hospitals. Project staff repeatedly stated that the communities expected the universities to deliver on their promises according to the planned schedule. (National Program Director)
5. **Developing high-quality Web-based courses requires a team composed of faculty, instructional designers and technical programmers.** Faculty involved with *Partnerships for Training* needed to work closely with instructional designers and technical programmers to create classes that met the educational needs of students and took advantage of Internet capabilities (e.g., animation and chat rooms). Each team member was critical in designing online classes. (National Program Director)
6. **Long-term programs must be flexible enough to adjust to changes in the climate and environment.** At the beginning of *Partnerships for Training*, most project directors envisioned using video conferencing to reach students. When the Internet's potential quickly became apparent, they had to shift their focus. Directors also had to respond to an environment in which demand for primary care practitioners lessened considerably. (National Program Director)

## AFTERWARD

Seven of the eight sites continued to provide distance education to nurse practitioner, certified nurse-midwife, and/or physician assistant students (the New Mexico *Partnerships for Training* was not financially sustainable). Many sites expanded their focus to include registered nurses and other health professionals.

While people from [Medically Underserved Areas](#) could still earn a nurse practitioner, certified nurse-midwife or physician assistant degree through distance education, it was uncertain whether the universities that participated in *Partnerships for Training* will

actively recruit students from these areas after RWJF funding ended, according to national program office Director Johnson-Pawlson.

However, the relationships that were established between academic institutions and communities continued.

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Reviewed by: Lori De Milto and Molly McKaughan

Program officers: Michael P. Beachler and Susan Hassmiller

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## APPENDIX 1

### *Partnerships for Training National Advisory Committee*

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

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University of New England  
College of Osteopathic Medicine  
Biddeford, Maine

**Roger J. Bulger, M.D.**

Association of Academic Health Centers  
Washington, D.C.

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Physician Assistant  
Winston-Salem, N.C.

**Maria Elena A. Flood**

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**Charlene M. Hanson, Ed.D., F.N.P.-C,  
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Statesboro, Ga.

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Princeton, N.J.

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**Bill R. Schmidt, M.P.H., P.A.-C**

Jackson County Health Department  
Independence, Mo.

**Susan Sparks, Ph.D., R.N.**

National Library of Medicine  
Bethesda, Md.

**Susan Wysocki, R.N.C.-N.P.**

National Association of Nurse Practitioners in  
Reproductive Health  
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**Michael Beachler**

Milton S. Hershey Medical Center  
Penn State College of Medicine  
Hershey, Pa.

**Nancy Kaufman, R.N.**

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**Spencer Lester**

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**Marian Osterweis, Ph.D.**

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Washington, D.C.

**Charlotte Hallacher**

The Robert Wood Johnson Foundation  
Princeton, N.J.

## APPENDIX 2

### Implementation Sites and their Academic and Community Partners

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

- **California Partnerships for Training** (ID#s 028001 and 032606), which was administered by the San Joaquin Valley Health Consortium and included three universities in California:
  - University of California at Davis
  - University of California at San Francisco
  - University of California San Francisco-Fresno Medical Education ProgramIts 16 community partners were:
  - Blue Cross of California
  - California Association of Physician Assistants
  - California Coalition of Nurse Practitioners
  - California Endowment
  - California Nurse-Midwifery Association
  - Foundation Health
  - Fresno City College
  - Fresno County Human Services System
  - Greater Fresno Health Organization
  - Kings County Health Department
  - Selma Community Health Center
  - Sequoia Community Health
  - University Medical Center
  - Veterans Administration Hospital
- **Delta Health Education Partnership** (ID#s 027992 and 032601), which included six academic institutions in Arkansas, Kentucky, Louisiana, Mississippi and Tennessee:
  - Alcorn State University
  - Arkansas State University

- Delta State University
- Frontier School of Midwifery and Family Nursing
- Louisiana State University School of Allied Health Professions
- University of Tennessee.

It had four community partners, which were:

- Arkansas Office of Rural Health
  - Louisiana Department of Health and Hospitals
  - Louisiana Office of Rural Health
  - Tennessee Department of Health.
- **Duke University-East Carolina University Partnerships for Training** (ID#s 027955 and 032603), which included two universities in North Carolina:
    - Duke University School of Nursing
    - East Carolina University Department of Physician Assistant Studies and School of Nursing.

Its 10 community partners were:

- Carteret General Hospital
  - Eastern Area Health Education Center
  - Martin General Hospital
  - North Carolina Academy of Physician Assistants
  - North Carolina Area Health Education Center
  - North Carolina Chapter of the American College of Nurse-Midwives
  - North Carolina Nurses Association
  - Sampson Regional Medical Center
  - Southeastern Regional Medical Center
  - Southern Regional Area Health Education Center.
- **Greater Detroit Area Partnership for Training** (ID#s 027994 and 032602), which included four universities in Michigan:
    - Oakland University
    - University of Detroit Mercy

- University of Michigan
- Wayne State University

There were six community partners:

- City of Detroit Health Department
- Detroit Medical Center
- Henry Ford Health System
- Metropolitan Church of God
- Thea Bowman Clinic
- Trinity Health

- **Minnesota Partnerships for Training** (ID#s 027998 and 030883), which included six academic institutions in Minnesota:

- College of St. Catherine
- College of St. Scholastica
- Metropolitan State University
- Minnesota State University, Mankato
- University of Minnesota
- Winona State University.

Its four community partners were:

- Health Partners
- Minnesota Center for Rural Health
- Minnesota Rural Health School
- Tribal Council

- **Mountain and Plains Partnership** (ID#s 027993 and 030882), which included seven educational partners in Colorado and Wyoming. There were six academic institutions:

- Red Rocks Community College
- Regis University
- University of Colorado at Colorado Springs
- University of Colorado Health Sciences Center

- University of Northern Colorado
- University of Wyoming
- Planned Parenthood of the Rocky Mountains, was another partner, which offered a nurse practitioner certificate program.

There were 12 community partners, which were:

- Centennial Area Health Education Center
  - Colorado Department of Public Health and Environment - Women's Health Section
  - Colorado Health Professions Panel
  - Colorado Rural Health Center
  - Denver Health
  - High Plains Rural Health Network
  - Kaiser Permanente: Rocky Mountain Division
  - San Luis Valley Area Health Education Center
  - Southeastern Colorado Area Health Education Center
  - U.S. Department of Health and Human Services Public Health Service-Region VIII
  - Western Colorado Area Health Education Center
  - Western Cooperative for Educational Telecommunications
  - Western Brokering Project.
- **New Mexico Partnerships for Training** (ID#s 027999 and 032605), which included four academic institutions in New Mexico:
    - Eastern New Mexico University at Portales
    - Northern New Mexico University Community College
    - University of New Mexico
    - University of New Mexico at Gallup.

There were seven community partners, which were:

- Committee for Local Healthcare Provider Education
- Community Services Center

- Health Centers of Northern New Mexico
- Johnson Controls Business Development
- Navajo Nation
- Portales Community Center
- Pueblo of Zuni
- **WisTREC Partnerships for Training** (ID#s 028003 and 030884), which included seven universities in Wisconsin:
  - Concordia University
  - Marquette University
  - University of Wisconsin at Eau Claire
  - University of Wisconsin at LaCrosse
  - University of Wisconsin at Madison
  - University of Wisconsin at Milwaukee and University of Wisconsin at Oshkosh

Its 15 community partners were:

- American Family Insurance
- Aurora Health Care
- Columbus Community Hospital
- Consortium for Primary Care in Wisconsin
- Department of Health and Family Services-Division of Health
- Great Lakes Inter Tribal Council
- Gundersen Medical Foundation
- Marshfield Clinic
- Office of the President of the Wisconsin State Senate
- Rural Wisconsin Health Cooperative
- United Health, Wisconsin Area Health Education Center System
- Wisconsin Network for Health Policy Research
- Wisconsin Office of Rural Health
- Wisconsin Primary Health Care Association

## APPENDIX 3

### Partnerships for Training Sites

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

#### **Planning and Implementation Grants**

**Arkansas State University College of Nursing and Health Professions (State University, Ark.)**

\$300,000 (October 1995 to February 1998) ID# 027992

\$1,496,358 (October 1997 to September 2003) ID# 032601

Phyllis Skorga, Ph.D., R.N.

(870) 910-8033

**Duke University School of Nursing (Durham, N.C.)**

\$299,658 (October 1995 to September 1997) ID# 027995

\$1,298,641 (October 1997 to June 2002) ID# 032603

Mary T. Champagne, Ph.D., R.N.

(919) 684-3786

**San Joaquin Valley Health Consortium (Fresno, Calif.)**

\$300,000 (October 1995 to December 1997) ID# 028001

\$1,300,000 (October 1997 to September 2003) ID# 032606

Mary C. Wallace, M.H.A.

(559) 446-2323

**University of Colorado Health Sciences Center (Denver, Colo.)**

\$200,000 (October 1995 to December 1996) ID# 027993

\$1,300,000 (January 1997 to December 2002) ID# 030882

Marie Miller, R.N., Ph.D

(303) 724-0330

**University of Detroit Mercy College of Health Professions (Detroit, Mich.)**

\$300,000 (October 1995 to March 1998) ID# 027994

\$1,289,594 (October 1997 to December 2001) ID# 032602

Mary O'Shaughnessey

(313) 993-6201

**University of Minnesota School of Nursing (Minneapolis, Minn.)**

\$186,398 (October 1995 to March 1997) ID# 027998

\$1,294,857 (January 1997 to September 2002) ID# 030883

Carol Hargate  
(612) 626-0690

**University of New Mexico Health Sciences Center (Albuquerque, N.M.)**

\$299, 805 (October 1995 to October 1998) ID# 027999

\$1,099,878 (October 1997 to September 2003) ID# 032605

Barbara Overman, Ph.D.  
(505) 272-1186

**University of Wisconsin-Madison (Madison, Wis.)**

\$191,526 (October 1995 to December 1996) ID# 028003

\$1,300,000 (January 1997 to December 2003) ID# 030884

Jeannette McDonald, D.V.M, Ph.D.  
(608) 263-5170

***Planning Grants Only***

**Institute for Urban Family Health (New York, N.Y.)**

\$197,444 (October 1995 to June 1997) ID# 027997

Diane Hauser, M.P.A.  
(212) 929-2432

**Planned Parenthood Federation of America (New York, N.Y.)**

\$242,339 (October 1995 to September 1997) ID# 028000

Sandra Worthington, M.S.N., R.N.C., C.N.M.  
(215) 985-2628

**Southern Illinois University School of Nursing (Edwardsville, Ill.)**

\$294,221 (October 1995 to September 1997) ID# 028002

Fred R. Isberner, Ph.D.  
(618) 453-7285

**Idaho State University (Pocatello, Idaho)**

\$299,273 (October 1995 to December 1997) ID# 027996

\$79,372 (October 1997 to March 1999) ID#032604

Barbara J. Cunningham  
(208) 236-3056

### **Program Related Grants**

**Association of Academic Health Centers** (Washington, D.C.)  
\$250,000 (November 2003 to April 2004) ID# 048958  
Jean E. Johnson, Ph.D.  
(202) 994-2576

## **APPENDIX 4**

### **Glossary**

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

**Area Health Education Center (AHEC)**—These centers are created through grant funds from the federal government as a way for medical schools and community centers to cooperate in recruiting and training health care professionals to serve in rural areas.

**Health Professional Shortage Area (HPSA)**—An urban or rural area that is determined by the U.S. Department of Health and Human Services to have a shortage of health professionals. Areas with fewer than one primary care physician per 3,500 people and areas with more physicians but a high level of poverty can receive this designation.

**Medically Underserved Area (MUA)**—Similar to a Health Professional Shortage Area, this somewhat more liberal federal designation is for an urban or rural area that does not have enough health care resources to meet the needs of its population.

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### Books

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### Articles

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Posey L and Egerton E. "Raising the Bar in Online Education: Research-Based Guidance for Distance Educators." Unpublished.

### Reports

Whitis GR. *Distance Education for the Health Professions*. Washington: Association of Academic Health Centers, June 2001.

Posey L, Egerton E and Korjus J. *Raising the Bar: Standards and Strategies for Learner-Centered Online Instruction—A Toolkit for Faculty*. Washington: Association of Academic Health Centers, 2002.

*Educating Primary Care Practitioners in Their Home Communities: Partnerships for Training*. Washington: Association of Academic Health Centers, 2003.

*Maximizing Your ROI: Collaboration and Quality in Distance Learning: Proceedings of the 10th Congress of Health Professions Educators.* Washington: Association of Academic Health Centers, 2003.

Johnson-Pawlson J, Champagne MT, O'Shahnessey M and Short N. *Making a Difference.* Washington: Association of Academic Health Centers, 2003.

Posey L and Page J. *Health Professions Educator's Learning Object Library—Design Specifications.* Washington: Association of Academic Health Centers; August 2003.

*Partnerships for Training: Report of the 2000–2001 Survey.* *Partnerships for Training*, fielded May–August 2000. Washington: Association of Academic Health Centers, 2002.

*Partnerships for Training: Report of the 2001–2002 Survey.* Washington: Association of Academic Health Centers, 2003.

*Partnerships for Training: Summary of the 2003 Survey.* Washington: Association of Academic Health Centers, 2004.

## **Survey Instruments**

"Partnerships for Training—First Survey." *Partnerships for Training*, fielded May–August 2000.

"Partnerships for Training—Second Survey." *Partnerships for Training*, fielded May–August 2001.

"Partnerships for Training—Third Survey." *Partnerships for Training*, fielded August–November 2003.

## **Sponsored Conferences**

*Partnerships for Training* Annual Grantee Meeting, July 1–3, 1996, Santa Fe, NM. 65 attendees, four presentations, two roundtable discussions.

*Partnerships for Training* Annual Grantee Meeting, January 29–31, 1997, Stuart, FL. Two presentations, five roundtable discussions, project poster sessions.

*Partnerships for Training* Annual Grantee Meeting, November 5–7, 1997, Spring Green, WI. 55 attendees, seven presentations.

*Partnerships for Training* Annual Grantee Meeting, September 22–24, 1998, Baltimore. 55 attendees.

*Partnerships for Training* Annual Grantee Meeting, June 16–18, 1999, Memphis, TN. 70 attendees, one presentation/workshop.

*Partnerships for Training* Annual Grantee Meeting, November 2000, Washington. 55 attendees.

*Partnerships for Training* Annual Grantee Meeting, August 7–9, 2001, Asheville, NC. 43 attendees, 10 presentations.

*Partnerships for Training*/Sloan Foundation Meeting, November 16, 2001, Orlando, FL. 27 attendees, six presentations.

*Partnerships for Training* Annual Grantee Meeting, September 25–27, 2002, Jackson, WY. 62 attendees, 19 presentations.

Association of Academic Health Centers 10th Congress of Health Profession Educators (Joint *Partnerships for Training* Annual Meeting), June 2–3, 2003, Washington. 96 attendees, 12 presentations.

## **Presentations and Testimony**

Maximizing Your ROI: Collaboration and Quality in Distance Learning. Proceedings of the 10th Congress of Health Professions Educators, June 2–3, 2003. Washington: Association of Academic Health Centers.

Presentations published:

- "Five Pillars and More: A Primer on Quality in Distance Learning," Burks Oakley II, Ph.D.
- "The Rise of E-Degrees: What's the ROI?" Gerald A. Heeger, Ph.D.
- "Launching an Online Program: From Paper Clips to Tenure," William H. Riffie, Ph.D.
- "Quality Standards for Learner-Centered Online Instruction," Laurie J. Posey, M.Ed., Emily Egerton, M.Ed., Jen Page, M.Ed.
- "Online Case-Based Learning," Gregory Thompson, M.D.
- "Collaborative Development of Online Content in Physiology: The Harvey Project," Robert S. Stephenson, Ph.D.
- "Using Intelligent Agents as Tutors," C. Stephen Knode, Ph.D., J.D. Knode, M.B.A., Ph.D.
- "Whither Advanced Distributed Learning? The Evolution of Sharable Content," Judy Brown.
- "Using Telehealth to Educate Practitioners," Dena Puskin, Sc.D.
- "Shared Learning Across Medical Specialty Societies: The Medbiqitous Model," Peter S. Greene, M.D.
- "Whose Intellectual Property Is It, Anyway?" Kenneth J. Hautman, Esq.
- "The Next Generation of Education," Jean Johnson-Pawlson, Ph.D., R.N.

## PROJECT LIST

Reports on the projects managed under this National Program are listed below. Click on a project's title to see the complete report, which typically includes a summary, description of the project's objectives, its results or findings, post grant activities and a list of key products.

- [Mountain and Plains \*Partnerships for Training\* Project Offers Advanced Distance Education for Nurses in Underserved Rural West \(October 2004\)](#)
- [Partnerships for Training Distance Learning Project Trains Clinicians to Serve the Health Needs of Mississippi Delta Residents \(October 2004\)](#)
- [Partnerships for Training Online Nursing Degree Program Boosts Level of Care in Rural North Carolina \(October 2004\)](#)

## PROFILE LIST

- [Gloria Graham, Marion, Ark.](#)
- [Dan Keuning, Pagosa Springs, Colo.](#)
- [Veronica Stevens, Clinton, N.C.](#)