"TELESCHOOLING" MAY BE THE ANSWER

One South Dakota Region Is Using Teleconference Classes to Train Nursing Students

BY MAX A. MORSE, EdD

The nursing shortage is real. By the year 2020 the United States will need an estimated 400,000 more nurses, according to the Joint Commission on Accreditation of Healthcare Organizations.[1] By 2010, approximately 40 percent of the nursing workforce is expected to be older than 50.[2] In just six years, the existing nursing workforce will be thinking about retirement options—at a time when fewer new nurses are entering the profession. What's worse, as the number of available nurses drastically diminishes, the numbers of aging baby boomers with greater health care demands will be rapidly on the rise.

The good news is that progressive steps can be taken to address this problem and solutions can be found. In this article I will describe the results of a pilot project that has, over the past three years, significantly offset the nursing shortage in hospitals and clinics in northeastern South Dakota. The project appears to have produced a replicable model that can eliminate the problems associated with nursing shortages. If that indeed occurs, the project may one day be compared to the discovery of a vaccine that prevents epidemics.

The SD SEED Program

The project was born in 2000 when leaders associated with Avera Health, Sioux Falls, SD, then conducting strategic planning sessions, decided to do something about the nursing shortage in northeastern South Dakota. From that planning emerged a partnership formed by Avera St. Luke's Hospital and Presentation College, both in Aberdeen, SD; eight rural communities; and the South Dakota Department of Labor. The coalition sought from the federal government a $2.7 million grant with which it hoped to use computer technology to bring "distance learning" to underserved rural communities.

The grant was awarded. With it the partners created what they called the South Dakota Skills Enhancement and Education through Distance-learning, or SD SEED project. The project was to recruit people from disadvantaged, unemployed or underemployed, and minority backgrounds in medically underserved rural areas and encourage them to pursue degrees in health care. One hundred and seventy-two participants were enrolled. They would choose to work toward one of four goals:

- A bachelor's of nursing (BSN) degree, leading to work as a registered nurse (RN)
- An associate degree in nursing (ADN) for licensed practical nurses (LPNs), leading to a higher wage scale
- An ADN degree, leading to work as an RN
- An associate degree as a rural medical assistant

Two key factors were necessary to make the project a success:

- Technology that would enable potential nurses and other health care workers living in rural communities to study health care subjects in their homes (and the local facilities in which they might eventually be employed) via distance learning
- Staff members (already in place in faith-based and governmental settings) and the resources they required to collaboratively teach the subjects to the 172 participating students

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Each of the nine participating communities used telemedicine and video-conferencing equipment and meeting rooms at its local hospital or clinic. With some adjustment of schedules, those facilities became classrooms for distance learning.

The teaching was conducted by approximately 340 employees at Avera St Luke's, its affiliates, and the college, who together volunteered more than 4,500 hours (amounting to almost $1 million of in-kind services).

Improving Rural Health

The program's larger objective was improving access to high-quality health care in the nine participating communities by increasing the number of their nursing and allied heath professionals. South Dakota estimates that by 2010 it will need 5,000 more nurses than it has today.[3] Of course, South Dakota is not alone in facing a nursing shortage. The state has recently experienced a 9 percent nursing vacancy rate, which is not quite as bad as the nation's 11 percent rate.[4] (A rate of 10 percent or more is considered critical.)[5]

A nursing shortage presents a threat to patients' welfare. Insufficiently staffed nursing shifts, extended hours for an already stressed nursing staff, and other work pressures—all these combine to reduce nurses' effectiveness in their work with patients. Meanwhile, already-strapped health care facilities must pay more to retain the nurses they have and to recruit others.

Three specific objectives were established for the SD SEED project.

Train Nursing and Allied Health Professionals for Underserved Areas Fortunately, the individuals interested in becoming nurses were already in place in the rural locations. For various reasons, they had had neither the means nor the opportunity to attend college to become health care professionals. Distance and economics were sizable barriers to overcome. SD SEED overcame the distance barrier by bringing college courses to them. Classes were held at the local hospitals and clinics, all of which already had meeting rooms equipped with teleconferencing equipment. Students had access to computers and the Internet. SD SEED made a program technician available to answer students' questions concerning both the hardware and the software. A grant from the U.S. Department of Labor's Employment and Training Administration helped pay students' tuition and fees. The grant was supplemented by financial aid and scholarships.

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Another barrier that had to be overcome involved scheduling. SD SEED's creators solved this by organizing videoconference classes in eight- and 10-hour blocks on Mondays and Fridays, to fit both instructors' and students' work schedules. Participants and employers worked together to schedule work shifts around class times. Of course, students and their families had to make scheduling adjustments as well.

Develop a Supportive Network through the Collaboration of Nursing Schools, Providers, and Associates Collaboration was one of the keys to project success. Avera St Luke's, the eight other rural facilities, and Presentation College stayed linked through e-mails, planning meetings, and phone calls. More than 300 employees of these institutions supported the program by serving as mentors, proctoring tests, providing clinical overviews, and sharing their expertise with students.

Program participants were nontraditional students, many of whom did not have prior college experience. They often met in study groups to help each other, receiving encouragement and assistance, when needed, from the facilities' directors of nursing and the program faculty.

Although the participating facilities already had teleconferencing systems in place, the grant paid for line charges and connecting costs and also reimbursed sites for class-related bridging and broadcasting charges. Teleconferencing enabled students and faculty to interact in class sessions. Instructors looked for different ways to stimulate student interest during long class days (which included periodic breaks). A conference call system was usually available for calling in questions and for assistance. A variety of media—e-mail, phone calls, regular mail, and a courier service—reinforced student-faculty communication.

Improve the Quality of Health Care in Underserved Areas By training nursing and allied health personnel for medically underserved areas, SD SEED's creators hoped to improve the quality of health care in those areas. The rationale was that an increased number of nurses and an ongoing system of continuing education through distance learning would, for years to come, enhance overall health care access. Now that these rural communities have experienced the merits of distance learning and the limitless potential of the Internet, they are likely to become more interested in developing healthier life styles.

SD SEED's Success

Most SD SEED participants are area people who have established families. After receiving training at local hospitals and clinics, they are likely to seek employment in those facilities and to remain in the local nursing workforce for years to come.

The majority are from economically disadvantaged backgrounds and were considered an "at risk group." Some participants are from Native American backgrounds. Some have been the first members of their families to attain a college education.

It is testimony that the motivational levels of these students and their commitment to the caring profession—as well as to the support provided by faculty, volunteers, and participants' families—that so many have been successful in their courses.

One student, a 42-year-old woman, summed it up by saying, "I am studying for my finals, and it hit me that I am actually going to graduate in May. This is really going to happen! I have learned so much from this experience that words cannot express. Yes, I have learned from school, but I have also become a person who believes in herself and has true self-esteem. I can honestly say that I have never felt this way about myself. . . . I am going to walk tall in the gown and hat on graduation day!"

In July 2003, the SD SEED project completed its second year of operation, introducing 88 new nurses and 10 new allied health graduates to the workforce of northeastern South Dakota. Ninety-three percent of the students enrolled in the BSN-to-RN completion program graduated on schedule. Ninety percent of the nursing students passed the state licensing examination within six months of graduation. Sixty-eight percent of the students who enrolled for ADN degrees completed their coursework within the allotted timeframe.

However, the most striking result of the program was the strengthening of nursing staffs. In 2001, before SD SEED was launched, eight of the nine participating facilities had RN vacancies, for a total of 21. By the summer of 2003, only two facilities had RN vacancies, for a total of three. Seven facilities had no RN vacancies at all. (See **Box**) No wonder that in 2002 the National Rural Health Association recognized the SD SEED project as the Outstanding Rural Health Program in the nation. □

For more information about the SD SEED project, direct inquiries to Byron Peterson, 605-622-5126 or byron.peterson@averastlukes.org.

NOTES

1. Joint Commission on Accreditation of Healthcare Organizations, *Health Care at the Crossroads: Strategies for Addressing the Evolving Nursing Crisis*, August 7, 2002, available at www.jcaho.org/about+us/public+policy+initiatives/health+care+at+the+crossroads.pdf.
2. U.S. General Accounting Office, *Nursing Workforce: Emerging Nurse Shortage Due to Multiple Factors*, July 2001, p. 2, available at www.gao.gov/new.items/do1944.pdf.
3. Amanda Alexander, "Grant Sprouts Home-Grown Nurses," *Abderdeen American News*, Aberdeen, SD, August 12, 2001. Data for the article was provided by Marge Hegge, PhD, director, Colleagues in Caring, South Dakota State University, Brookings, SD.
4. Alexander.
5. Alexander.

Filling Nursing Vacancies

Participating Sites	*2001*	*2003*
Avera St. Luke's Aberdeen, SD	5	1
Avera United Clinic of Bowdle Bowdle, SD	2	0
Marshall County Healthcare Center/ Avera Health Britton, SD	2	0
Eureka Community Health Services/ Avera Health Eureka, SD	2	0
Gettysburg Memorial Hospital Gettysburg, SD	3	0
Holy Infant Hospital Hoven, SD	2	0
Hand County Memorial Hospital/Avera Health Miller, SD	2	0
Mobridge Regional Hospital Mobridge, SD	3	0
Community Memorial Hospital Redfield, SD	0	2
TOTAL	21	3