

# Southern Texas Consortium Identifies and Prepares for Region's Nursing Needs

Colleagues in Caring: Regional Collaboratives for Nursing Work Force Development (Phase 2)

#### **SUMMARY**

From 1996 to 1999, researchers at Texas A&M University - Corpus Christi oversaw a consortium of health care interests in a 15-county region of southern Texas that developed a predictive model to identify the area's future nursing care needs and helped initiate improvements in the region's nursing education system, including an online nursing curriculum.

The project was part of the Robert Wood Johnson Foundation's (RWJF) national program *Colleagues in Caring: Regional Collaboratives for Nursing Work Force Development.* 

Licensure-based data from the state Board of Nurse Examiners provided information on the region's active nursing workforce. Combining these various data with Geographic Information System (GIS) technology, consortium personnel developed predictive health-risk GIS models that could project future health care trends and nursing needs in the region.

# **Key Results**

- The project demonstrated that a GIS predictive model can effectively "map" health risk data in an area. However, project leaders reported that the required expertise made the model too cumbersome for widespread use and that additional funding to refine the system was necessary.
- The project helped establish an online nursing curriculum to increase the opportunity
  of the region's residents—especially those living far from a campus—to earn a
  nursing degree.
- Development of camera- and computer-equipped classrooms at Victoria College and Texas A&M University-Corpus Christie permit an instructor on one campus to reach nursing students on the other.
- The project helped create an organization of nurse administrators and nurse educators—the Corpus Christi Organization of Nurse Executives—that is working to

establish clearly differentiated levels of nursing competencies and corresponding compensation.

# **Funding**

RWJF supported the project with two grants totaling \$349,915 between July 1996 and June 2002.

#### THE PROBLEM

The Greater Coastal Bend Region in southern Texas along the Gulf of Mexico is a 15-county, largely rural area with a majority Hispanic population and high levels of illiteracy and poverty. Many residents are uninsured or underinsured, and a number of the counties are so sparsely populated that they offer no health care services at all.

Historically, the region's nursing workforce was insufficient to meet the population's needs; with the advent of managed care, the demand for registered nurses with advanced specialty training was especially acute outside the metropolitan areas of Corpus Christi and Victoria.

The region has four academic nursing schools (Del Mar College, Victoria College, Bee County College and Texas A&M University-Corpus Christi). However, their ability to produce additional nurses for the region was restricted by a shortage of faculty.

To build the capacity of the region's nursing education system and to expand the nursing workforce, the area's major health care interests formed the Greater Coastal Bend Regional Consortium and applied to RWJF's *Colleagues in Caring* program for funding. The consortium included health care providers, nursing educators, representatives of professional associations, and policymakers.

#### THE PROJECT

Under the first three-year RWJF grant of \$199,915, the consortium's major goals were to:

- Assess the region's current nursing care needs and develop a system to estimate future needs.
- Enhance nurses' educational and career opportunities to meet the identified needs.
- Create an ongoing mechanism to continue the consortium's workforce monitoring and development functions.

The initial focus was on data collection and analysis. Project personnel obtained demographic, economic and health databases, including the federal government's Behavioral Risk Factor Surveillance System, which is a large telephone survey that tracks

health risks across the country. Licensure-based data from the state Board of Nurse Examiners provided information on the region's active nursing workforce.

Combining these various data with Geographic Information System (GIS) technology, consortium personnel developed predictive health-risk GIS models that could project future health care trends and nursing needs in the region.

In the second three-year phase—supported by \$150,000 in RWJF funding—project personnel focused increased attention on easing transfer rules, duplicative course requirements and other barriers that restrict the ability of nurses to move from one nursing education level to the next—for example, from a registered nurse (RN) with a two-year associate degree to an RN with a four-year bachelor's degree.

Project personnel evaluated the curricula of the region's nursing programs to identify content similarities and differences. They also worked to develop an Internet-delivered generic nursing program to serve the area. In part because of corporate buyouts and industry realignment, the consortium lost a number of key members. As a result, in the second three-year phase the consortium reorganized into several small groups focused on individual aspects of the workforce improvement effort.

## **RESULTS**

Key results reported to RWJF included the following:

- The project demonstrated that a GIS predictive model can effectively "map" health risk data in an area. However, project leaders reported that the required expertise made the model too cumbersome for widespread use and that additional funding to refine the system was necessary. Also, input of the Behavioral Risk Factor Surveillance System data was challenged on grounds that application of this national database to a small area violated the privacy of the surveyed individuals in that area. Project leaders agreed the objection was valid.
- The project helped establish an online nursing curriculum to increase the opportunity of the region's residents—especially those living far from a campus—to earn a nursing degree. The Internet courses, which were scheduled to be offered beginning in fall 2003, can lead to either an associate nursing degree from Del Mar College or a baccalaureate from Texas A&M University-Corpus Christi. Consortium-generated data identifying the region's nursing needs helped secure a three-year, \$1.5-million U.S. Department of Education grant to develop the electronic program, named the eLine Partnership. The two participating nursing programs and other Texas sources contributed another \$2.5 million. Although not directly a part of the RWJF-funded project, the federal grant award and the eLine Partnership's development grew out of the work of the *Colleagues in Caring* consortium, project leaders said.

- Development of camera- and computer-equipped classrooms at Victoria College and Texas A&M University-Corpus Christie permit an instructor on one campus to reach nursing students on the other. This improvement, which stemmed from the *Colleagues in Caring* project, enables registered nurse students to move more readily from the associate degree level into bachelor's and master's nursing programs.
- The project helped create an organization of nurse administrators and nurse educators—the Corpus Christi Organization of Nurse Executives—that is working to establish clearly differentiated levels of nursing competencies and corresponding compensation.

### **Communications**

Project staff posted information about the project and its activities on a section of the website maintained by the Texas A&M University-Corpus Christi, College of Science and Technology. That section is no longer accessible, but the website itself carries related, current information. Project personnel made numerous presentations to groups—both in and out of Texas—about the consortium's work, including the data and modeling aspects. The *Corpus Christi Caller Times* and other regional media reported on consortium meetings. (See the Bibliography for details.)

#### **AFTERWARD**

The Corpus Christi Organization of Nurse Executives, which includes some members of the original project consortium, is pursuing career improvements for the region's nurses. In addition, the Coastal Bend Health Education Center—a state-funded organization created in 1999 and housed on the Texas A&M campus—includes a Nursing Consortium, which provides an ongoing forum for nursing workforce issues, including recruitment and retention.

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## **APPENDIX**

# Other Contributors to the Nursing Workforce: Beyond 2000 Project

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

## Phase One

Spohn Health System, \$75,000 cash

Driscoll Children's Hospital, \$25,000 cash

Coastal Bend Community Foundation, \$25,000 cash

Texas A&M University-Corpus Christi, \$266,755 in kind

#### Phase Two

Area Health Education Center, \$12,278 cash

Driscoll Hospital Foundation, \$25,000 cash

Coastal Bend Community Foundation, \$25,000 cash

Texas A&M University-Corpus Christi, School of Nursing, \$60,000 cash

Texas A&M University-Corpus Christi, \$264,210 in kind

### **BIBLIOGRAPHY**

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

#### **Articles**

Johnston C, Bischoff W, Jeffress G and Michaud P. "The Nursing Work Force Beyond 2000 Project. The Greater Coastal Bend Region of Texas." *Journal of Nursing Administration*, 27(6): 4–6, 1997.

## **Survey Instruments**

"Nursing Workforce—Employer Perspective," Workforce Patterns & Trends Workgroup, Greater Coastal Bend Regional Consortium, fielded spring 1999.

"What is the Future for Nursing in South Texas?" Nursing Workforce: Beyond 2000 Project staff, fielded November 1997.

#### **Grantee Websites**

www.sci.tamucc.edu. The website of Texas A&M University-Corpus Christi, College of Science and Technology, which included a section no longer accessible on activities of the region's *Colleagues in Caring* project. Corpus Christi, TX: Texas A&M University-Corpus Christi.

## **Presentations and Testimony**

Nikolay Todorov, "GIS Modeling of Nursing Workforce and Health-Risk Profiles," at the University Consortium for Geographic Information Science Annual Assembly and Summer Retreat, June 16, 1997, Bar Harbor, ME.

Claudia L. Johnston, "Nursing Workforce: Beyond 2000 Project," to the Texas Education Summit, February 1998, Austin, TX.

Claudia L. Johnston, "GIS & Public Health—Lessons from the Nursing Workforce: Beyond 2000 Project," to the Turning Point: Collaborating for a New Century in Public Health National Forum, June 1999, Atlanta.

Claudia L. Johnston, "Nursing Workforce: Beyond 2000 Project," to the 24th Biennial Convention, The Nursing Renaissance, National League for Nursing, June 1999, Miami.

Claudia L. Johnston, "Nursing Workforce: Beyond 2000 Project Update," to the 6th Biennial Conference: "A Celebration of Learning," Texas League for Nursing, 1999, Dallas.