

## Research on Health and Health Policy



Institute for Science  
Technology and Public Policy  
The Bush School of Government and Public Service  
TEXAS A&M UNIVERSITY

Health care is one of the most challenging policy areas we face today. An interdisciplinary group of scholars is currently engaged in research on the ways that public health organizations respond to potential threats to health posed by the temperature and precipitation changes associated with global warming. These scholars are seeking to advance both basic and applied knowledge of the mechanisms that influence decision making among health professionals with particular attention to risk perception and the flow of information.

## Completed Projects

### A Study of Adoption and Implementation of Team Effectiveness Programs at the Work Unit Level

*Funder: National Science Foundation*

Ways of coordinating work can be viewed as forms of organizational technology and innovations in the organization of work are being used to improve the delivery of health care. Three interrelated explanations of the successful adoption and implementation of quality programs will be tested. Dependent variables will be decision to adopt, degree of implementation of quality program, and degree of effectiveness of quality program. Independent variables include 1) structural features such as complexity of task, level of resources, and degree of uncertainty; 2) process variables such as participation in decision making, and levels of vigilance; and 3) institutional variables such as the symbolic and normative environment of the organization.

Research team members included: Drs. M. Scott Poole (speech communication), Arnold Vedlitz (ISTPP/political science), Letitia T. Alston (ISTPP/sociologist), Tina Dacin (management), J. Pignatiello (industrial engineering), and Dr. Frank Villa Maria (Scott & White Memorial Hospital and Clinic, Temple, Texas).

### Adoption and Use of Telecommunication for Rural Health Care

*Funder: Agency for Health Care Research and Quality (AHRQ)*

This grant was awarded to support the investigation of the adoption and use processes that underlie the success or failure of telecommunication technology as a means for supporting rural health care. It was conducted at six locations in Texas. The role of leadership at community and organizational levels is crucial in understanding the adoption of this technological innovation, and the project focuses on unexplored aspects of this process in one of the most rapidly developing areas of medical technology. The substance of this research has clear and direct links to the Institute's interest in the roles that leaders play in the introduction of technology and in the implications for health policy.

Research team members include: Drs. Wm. Alex McIntosh (sociology), Letitia Alston (ISTPP/sociologist), and Arnold Vedlitz (ISTPP/political science). Additionally, there were a small number of personnel at Texas Tech University Health Sciences Center in Lubbock and Telemedical Interactive Consultative Services, Inc. in Austin who were involved in the grant on a subcontract basis. These individuals have backgrounds in medicine, telecommunications technology and history.

### Scalable Telecommunications Technology for Disease Management: Development of DiabetesNet to the Home and Clinic

*Funder: Scott & White Memorial Hospital Research Grants*

This project represents an interdisciplinary venture with two objectives. The first is the development of a computer-based network that provides health services from a multi-specialty facility to satellite clinics and to patients homes. In one regional clinic, video conferencing was also available. The second goal was an evaluation of the network's effectiveness as a tool to increase services utilization, improve health outcomes, and lower costs. The principal investigator was Dr. Richard L. Street (communication).

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## **The Effect of a Two-Way Interactive Link on Obesity Clinic Results**

*Funder: Scott & White Memorial Hospital Research Grants*

This project examined the relative effects of a series of patient-professional links on obesity counseling outcomes. The conditions compared in outcome included face-to-face contact between health professional and patient, interactive video contact between health professional and patient, and asynchronous time video contact between health professional and patient. The face-to-face condition required that patients travel to Temple, Texas for sessions.

Research team members included: Dr. Richard L Street (communication), as well as obesity specialists at Scott & White Memorial Hospital and Clinic in Temple, Texas. Patients were patients with the Scott & White Clinic in College Station, Texas.

## **A Multiphase Trial of an Inexpensive Desktop Teleconferencing System in Remote Pediatric Neurologic Patient Evaluation and Integration of Clinical and Basic Science Curricula, and Rural Physician Continuing Medical Education**

*Funder: Scott & White Memorial Hospital Research Grants*

This project tested a model for application of a desktop version of teleconsultation which allows remote assessment of pediatric neurology patients located in four regional clinics. Real time (synchronous) teleconsultation was tested as was triage of new patients using a store and forward (asynchronous) technology.

The research team included: Dr. Richard L. Street (communication), Dr. Wm. Alex McIntosh (sociology), Dr. Arnold Vedlitz (ISTPP/ political science), Dr. Darrell Crisp (Scott & White Hospital and Clinic, Temple, Texas), three additional physicians at Scott & White Hospital and Clinic, research assistants, and ancillary personnel at the remote clinics.

## **Institute for Science, Technology and Public Policy**

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