

2008-09 Minority Health Research and Education Grant Program

The Board awarded nine grants, totaling \$2,351,865:

Education Pipeline Competition (Eight, two-year grants)

Blessing, J. Dennis, The University of Texas Health Science Center at San Antonio in partnership with South Central Area Health Education Center, *Learn, Lead, Advance to New Opportunity (LLANO)*. \$183,327.

LLANO addresses minority student college attendance, health professions shortages, and obesity issues in South Texas. The project objectives are to provide a health professions orientation, increase awareness a health problems resulting from obesity, conduct a service learning project, develop leadership skills that lead to college attendance, and increase parental value on higher education. High school students and teachers from four communities will attend a week long program on allied health opportunities, nutrition, and college orientation.

Outcome measurements: community service project completion/delivery; high school leadership role; preventing personal obesity; college attendance; health career major; and tracking through the IAHEC data base.

Fike, David and Lockman, Paul, Texas Tech University Health Sciences Center in partnership with Texas Southern University and Amarillo College, *Innovations in Competency Education: Strengthening Pipeline*. \$338,002.

To reduce disparities and improve minority student outcomes for those in the pipeline to health careers, this project will implement an innovative, competency-based instruction method at a Hispanic serving community college and two colleges of pharmacy (one a Historically Black University). Qualitative and quantitative methods will evaluate benefits attributable to the competency-based method. Expected outcomes are: students will demonstrate a significant improvement in learning outcomes; final learning outcomes are equivalent for students who start a course under-prepared compared to those who are appropriately prepared; and outcomes are positive regardless of student characteristics (e.g., race/ethnicity), courses, and institutions.

Johnson, Ronald and Johnson, Craig W., The University of Texas Health Science Center at Houston in partnership with Prairie View A&M University College of Nursing and The University of Texas M.D. Anderson Cancer Center, *Comprehensive Early Intervention and Mentoring for Student Success*. \$198,884.

This program prescribes, implements, and evaluates targeted early interventions to improve underrepresented minority student (URMS) academic performance, timely graduation, health workforce diversity and shortages. The program (1) measures early diagnoses, preparedness and attrition risks of URMS and other students in six diverse schools representing five disciplines, and (2) prescribes and implements interventions to avert student Adverse Academic Status Events (AASE) and increase retention. Personal Background and Preparation Surveys administered during first-year student orientations provide individualized diagnostic and prescriptive reports to faculty advisors to guide intervention referrals. At academic year end, disciplines generate AASE reports. Survey, intervention and AASE outcomes document program effectiveness.

Jones, Lovell A. and Heggie, James A., The University of Texas M.D. Anderson Cancer Center in partnership with the Fort Bend Independent School District, *The Science Centered Inquiry-Based Educational Activities in Collaborating Elementary Classrooms (SCIENCE) Project*. \$283,519.

The need for minority health professionals and researchers remains persistent. SCIENCE Project II will increase the quality of science teaching through professional development and enhance inquiry-base science activities among minority K-5 students by developing and implementing a grade level appropriate science education roadmap designed to bridge the gap

from elementary to middle school science. The teachers will then provide input on the usefulness of the provided professional development, teaching strategies and classroom science activities using questionnaires and focus groups. SCIENCE Project II will ultimately foster an increased interest and strengthen the skills needed to establish careers in science.

Kirk, Lynne M., The University of Texas Southwestern Medical Center at Dallas in partnership with the Joint Admission Medical Program (JAMP), *A Randomized Controlled Trial of a Summer Pre-matriculation Program for Academically At-risk Medical Students*. \$171,000.

There is a need to increase diversity among physicians. The school will assess the effectiveness of a pre-matriculation program (SEP) for academically at-risk students in increasing the racial/ethnic diversity of medical students. This will be a randomized study of 120 medical students who will participate the summer prior to matriculation in a 6.5 week on-campus SEP or similar online content. SEP students will receive scientific coursework and will be taught study skills, stress management and critical thinking. Control group students will receive similar scientific content online. Outcome measures for both groups include: (1) curriculum completion; (2) exam grades; (3) GPA; and (4) USMLE scores.

Murdoch, James C. and Ledbetter, Cynthia, The University of Texas at Dallas in partnership with the Dallas-Fort Worth Health Education Center and Education Is Freedom, *The Effects of Off-Campus Health Occupations Enrichment and Information Programs on the Selection of College Major in a Sample of College Bound Students from Three High Schools in the Dallas Independent School District*. \$251,686.

There is a mismatch between the expected supply of individuals prepared for health-related careers and the expected demand for such workers. One way to increase the supply may be to systematically expose students to such careers but, very little is known about the effectiveness of exposure programs. We will measure the effectiveness of a set of exposure programs by looking at the choice of college major in three different treatment groups. The study is based on minority (African American and Hispanic) high school students from the Dallas Independent School District who are in the Education Is Freedom program.

Oscos-Sanchez, Manuel Angel and Burge, Sandra K., The University of Texas Health Science Center at San Antonio Department of Family and Community Medicine in partnership with San Antonio Independent School District (Health Professions High School at Edison), Harlandale Independent School District, and Familias en Accion Community Collaborative Council, *A Prospective Randomized Controlled Evaluation of Two Health Career Education Pipeline Programs: The Teen Medical Academy and the Health Science Center Preparatory Academy*. \$290,243.

Minorities in Texas are underrepresented in health career education programs. This project will determine if the Teen Medical Academy (TMA) and the Health Science Center Preparatory Academy (HSC-Prep) improve minority students' ability to successfully apply to such programs. Four hundred (400) economically disadvantaged high school students will be followed in a prospective randomized-controlled evaluation design. Group differences in knowledge, attitudes, and behaviors will be measured. "Intention-to-treat" analysis will compare students accepted to TMA, HSC-Prep, both programs, and neither program. "Dose-response" analysis will examine effects of level of exposure as determined by the number of TMA and/or HSC-Prep sessions attended.

Shaw, Mary and Ridley, Charles, Texas A&M University in partnership with Arlington Independent School District (Bowie High School, Sam Houston High School), University of North Texas Health Science Center Graduate School of Public Health, Texas Christian University, and Texas Wesleyan University, *The Health Disparities Academy: Developing Scientist-Practitioners for Careers in Public Health, Mental Health, and Allied Health*. \$293,247.

Low career literacy and inadequate support systems are impediments to minority high school students entering public health professions. The major goals are to create a pipeline of these students for health professions and increase their awareness of disparities in the field. The project supports the AVID curriculum in two Arlington ISD schools by developing modules for mentors and family support systems, using minority professionals to teach students, and providing career literacy lessons. Process and impact evaluation methods, consisting of quantitative and qualitative measures, will be used. A pre-post design will be used to evaluate students' awareness, knowledge, and interest in selected health professions; and students' knowledge of health disparities.

Statewide Website Development Competition (One, two-year grant)

Cox, Craig, Texas Tech University Health Sciences Center School of Pharmacy in partnership with West Texas Area Health Education Center (AHEC), Lubbock Independent School District, Texas Tech University College of Mass Communication, The University of Texas Medical Branch, East Texas AHEC, AHEC of the Plains, *Expanding Texas HOT Jobs Resources for Minority Students and Their Families to Address Gaps in Understanding about Health Career Opportunities*. \$341,957.

The project will enable expansion of the Texas HOT Jobs website to meet specific information needs of career seekers, families, and educators. It will assess perceptions of Hispanic and other minority students and their families regarding health care. A Spanish language version of core content will be developed, along with an online resource of health professional role models, and 20 interactive curricular modules that utilize skills in critical thinking, math and science to create a link to health careers. The effectiveness of new content will be evaluated by surveys of website users issued pre- and post-implementation of expansion.