

ISTEP 2008 REPORT

Executive summary

Since its creation in February 2007, Innovative Strategies for Transforming the Education of Physicians (ISTEP) research collaborative, led by the American Medical Association (AMA), has been committed to improving the care of patients through advances in outcome-based medical education research. The ISTEP collaborative features leading medical educators, researchers and clinicians from across the learning continuum, including medical schools, residency and fellowship programs, and continuing professional development activities. The ISTEP collaborative includes 27 medical schools and associated hospitals, which together represent about one quarter of all medical students and one-fifth of all resident physicians in the country.

In 2008 ISTEP began exploring the feasibility and utility of launching a “Framingham-inspired” longitudinal cohort study of medical learners. This proposed multi-year prospective study aims to follow cohorts of medical students, resident physicians and physicians in practice so researchers may better understand the relationship between the quality of medical learning and its impact on patient care.

ISTEP research and accomplishments in 2008 have laid the groundwork to commence this study by demonstrating our ability to work together as a collaborative through the design and implementation of multi-site research studies.

This past year also saw the creation of the ISTEP Protocol Writing Committee, tasked with developing the conceptual and methodological framework for the longitudinal cohort study. The committee has approached this task by employing a National Institutes of Health Research Project Grant Program (R01) model that integrates unique but interrelated studies around a central theme. This approach will enable ISTEP to collect data and gain valuable experience that will prove useful as we prepare to launch the longitudinal study.

ISTEP is positioned to be a pre-eminent research enterprise in medical education that will be instrumental in transforming the development of 21st-century medical education with an eye toward producing physicians who are more knowledgeable, competent and compassionate. It is our hope that the longitudinal cohort study will be officially launched in late 2010 to coincide with the 100th year anniversary of the Flexner Report.

Success as a collaborative: 2008 accomplishments

Through the course of 2008, ISTEP researchers were engaged in developing and assessing curricular materials designed to improve the knowledge and competence of doctors, thereby enabling physicians to provide better care to their patients. During the year, ISTEP completed two multi-site research projects: the sound prescribing studies investigating physician prescribing behavior and the development of educational products on substance abuse.

The sound prescribing study was the ISTEP collaborative's first research endeavor. The study, funded by the Attorney General Consumer and Prescriber Education Grant Program investigated whether educational materials could successfully change physician behaviors and attitudes regarding prescribing decisions.

Study 1, conducted on medical students at four medical schools across the country, exposed the participants to a faculty-led debate, small group discussions and an interactive Web-based learning module. The study then measured knowledge and skills through surveys and a specially designed Objective Structured Clinical Evaluation station, designed to measure the students' communication skills. The collected data are presently being analyzed.

Study 2, conducted on resident physicians specializing in family practice or internal medicine at four residency programs nationwide, used only a Web-based learning module and evaluated residents on their prescribing decisions through the use of an unannounced standardized patient (USP). This study marks one of the first uses of USP technology in a multi-site research endeavor, and thereby demonstrates the unique potential for ISTEP in creating and deploying novel research methods. The initial data analyses indicate that these educational interventions can influence physicians' prescribing patterns for the betterment of patient care.

Peer-reviewed manuscripts based on the studies' findings will be submitted for peer review in 2009.

In addition to the research being conducted through the sound prescribing studies, ISTEP collaborators spent 2008 working with National Institute on Drug Abuse (NIDA) to develop innovative educational materials. Four ISTEP schools, identified as Centers of Excellence by NIDA, have developed a portfolio of a dozen educational products aimed at enhancing the ability of medical students and residents to identify, diagnose and treat patients afflicted by substance abuse. These materials are significant, given the demonstrated link between early diagnosis for these conditions and successful treatment, as well as evidence that many of today's

doctors feel unprepared to diagnose and provide care for those suffering from substance abuse disorders.

As this project enters its third and final year, the portfolio of products developed will be widely disseminated and evaluated by other schools in the ISTEP collaborative.

Building toward future success: The ISTEP Protocol Writing Committee

The future of ISTEP lies in the establishment of a “Framingham-inspired” longitudinal cohort of medical learners. Toward this end, in September 2008 the ISTEP Steering Group, which includes representation from all 16 sites of the collaborative, agreed to establish an ISTEP Protocol Writing Committee to develop a research protocol that will serve as the conceptual and methodological roadmap for the establishment of the study. This group, chaired by Monika Safford, MD, and Tom Houston, MD, MPH, both professors of medicine at the University of Alabama, are developing pilot studies for all learner levels linked conceptually along the lines of an R01 grant framework. The committee is scheduled to complete its work by June 2008 and present a full report for consideration at ISTEP’s next annual meeting in October. Much of the work of the protocol writing committee will also be developed into a manuscript for consideration for the 2009 annual medical education issue of the *Journal of the American Medical Association*.

Opportunities and challenges

Building our collaborative

As the work of the collaborative moves forward, a key challenge remains finding the means to leverage the broad knowledge and expertise of all 27 ISTEP sites while remaining committed to the pursuit of the goals established by the ISTEP Executive Committee.

For the ISTEP collaborative to be truly successful, however, we must engage not only all ISTEP sites, but also outside stakeholders including the Agency for Healthcare Research and Quality and Health Resources and Services Administration, for purposes of sharing resources and data, and for making the case for the importance of comparative educational effectiveness research. In addition to cooperation with federal agencies, the collaborative must seek opportunities for cooperation with other professional organizations, including the Association of American Medical Colleges and National Board of Medical Examiners. Leveraging the strengths of other organizations, in addition to the strengths of ISTEP members, is key to the continued success of the collaborative.

Making other organizations outside of the collaborative aware of the ISTEP collaborative, and bringing them on as partners for our endeavor, is essential for the transformation of medical education.

Securing research funding

Securing funding for large, multi-site research operations is never an easy task and today’s macroeconomic climate has only increased the competition for these funds. While the AMA has provided, and will continue to provide, crucial operational and administrative support, as well as funding for small, targeted research efforts, no single institution can be expected to provide the majority of research funding.

Convincing possible private and public funders of the benefits of outcomes-based medical education research remains a significant challenge. For the ISTEP mission to realize its potential, funders, in order to be brought into the fold, must embrace the importance of professional education in ensuring that the right care is delivered to the right patient at the right time.

Appendix:

ISTEP financial support received by site as of December 2008

Alabama	\$15,000
University of Alabama School of Medicine	
California	\$52,200
David Geffen School of Medicine at UCLA, Los Angeles	
Keck School of Medicine at University of Southern California, Los Angeles	
University of California Irvine College of Medicine, Irvine	
Illinois	\$32,000
University of Illinois at Chicago College of Medicine	
Maryland	\$25,000
Johns Hopkins University School of Medicine	
University of Maryland School of Medicine	
Massachusetts	\$329,200
Boston University School of Medicine	
Harvard Medical School	
Tufts University School of Medicine	
University of Massachusetts Medical School	
Michigan	\$15,000
University of Michigan Medical School	
Minnesota (two separate teams)	
Mayo Medical School	\$15,000
University of Minnesota Medical School–Twin Cities	\$23,400
Nebraska	\$147,000
Creighton University School of Medicine	
New York	\$15,000

New York University School of Medicine	
North Carolina	\$27,000
Brody School of Medicine at East Carolina University	
North Dakota	\$125,000
University of North Dakota School of Medicine and Health Sciences	
Oregon	\$20,000
Oregon Health & Sciences University School of Medicine	
Pennsylvania	\$227,500
Drexel University College of Medicine	
Jefferson Medical College of Thomas Jefferson University	
University of Pennsylvania School of Medicine	
Texas	\$82,600
Baylor College of Medicine, Houston	
University of Texas Medical Branch at Galveston	
University of Texas Medical School at Houston	
University of Texas Southwestern Medical Center at Dallas Southwestern Medical School	
Washington	\$15,000
University of Washington School of Medicine	
Total amount:	\$1,165,900