

AHRQ Grantee Profiles



Grant Title: Improving Diagnostic Safety

Principal Investigator: Hardeep Singh, M.D., M.P.H., Associate Professor of Health Services Research

Institution: Baylor College of Medicine, Houston, Texas

Grantee Since: 2008

Type of Grant: Various

Hardeep Singh, M.D., M.P.H., has dedicated his research career to understanding diagnostic errors and improving safety in health care. He is currently Chief of the Health Policy, Quality & Informatics Program at the Center for Innovations in Quality, Effectiveness and Safety based at the Michael E. DeBakey VA Medical Center and Baylor College of Medicine in Houston, Texas.

Dr. Singh's passion for improving the safety of diagnosis is what led him to transition from a full-time primary care physician into a research investigator. More than a decade ago, many of his colleagues suggested it might be too challenging a field of study. "Many senior researchers used to caution me saying, 'Are you sure you want to study this? It seems too hard, and we're not really sure if this is an important area,'" he recalls. "And my answer was always the same, 'Well, one day it will be.'"

That day has come. Dr. Singh is among a distinguished group of researchers who are speaking at the September 28, 2016, [AHRQ Research Summit: Improving Diagnosis in Health Care](#). He recently published a [paper](#) calling for the World Health Organization to consider eight priority areas for future research and development to improve diagnostic error prevention worldwide. His AHRQ- and VA-funded research was cited frequently in the recent *Improving Diagnosis in Health Care* report from the Institute of Medicine, and helped the committee make estimates on the frequency and significance of diagnostic error.

Through several AHRQ-funded research projects, Dr. Singh has focused on understanding the behavioral, technological, and organizational factors surrounding the use of electronic health records (EHRs). Some of his earliest research used health information technology to identify patients who might be at risk of having delayed diagnoses for prostate, lung, or colon cancer. Using EHR data, Dr. Singh and his multidisciplinary research team created computerized algorithms to enable

identification of such patients. They also developed new EHR-based decision-support software to enable more timely followup of patients with abnormal test results related to cancer diagnosis.

Dr. Singh's work has had a broad impact on the policy and practice in the U.S. Department of Veterans Affairs (VA), specifically initiatives to improve the communication of test results. "Working in close partnership with clinical operations leaders, we helped develop and disseminate several guidance documents for the field," says Dr. Singh. "Our research has thus far informed three toolkits to help people on the front lines manage test results-related safety issues." In addition, he recently co-developed the national VA policy on communication of test results to patients and providers. This policy is in place at all of the more than 150 VA facilities and collectively impacts care for millions of patients.

In addition to conducting research on this topic, Dr. Singh has worked for many years to bring diagnostic error into the limelight through conferences that bring together experts in the field. He helped organize the AHRQ-supported Diagnostic Error in Medicine conference series, where researchers, practitioners, and experts discuss ways to advance the field of diagnostic error prevention.

"Ultimately," says Dr. Singh, "it's all about making a difference in patient outcomes and changing the system where we clinicians practice so we can give the best possible care." His research on diagnostic error has received much national recognition. In 2012, he received the AcademyHealth Alice S. Hersh New Investigator Award for high impact research, and in 2014, he received the prestigious Presidential Early Career Award for Scientists and Engineers (PECASE) from President Obama for his pioneering work in the field.

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