# VA Health Services Research & Development Service

*Impacts Toward Optimizing VA Care*

***Research Impacts*** highlight HSR&D studies that resulted in significant contributions to VA's consistent commitment to providing optimal care to all Veterans.

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**Antibiotic Stewardship.** Antimicrobial resistance is a public health crisis created by indiscriminate antimicrobial use, which can make the population more vulnerable to drug-resistant infections. Partly funded by HSR&D, a recent study conducted by **Barbara Trautner, MD, PhD**, and colleagues evaluated the effectiveness of a quality improvement program of individualized teaching on how to apply an evidence-based algorithm to distinguish urinary tract infection and asymptomatic bacteriuria, thereby reducing unnecessary urine cultures and antibiotic use among Veterans with asymptomatic bacteriuria. Findings show that the program was associated with significantly fewer urine cultures and a shorter length of antibiotic therapy. Projected clinical savings in four VA sites across three years would be 2,881 fewer urine cultures and 8,193 fewer days of antibiotics. The success of this project implies that external/internal facilitation (coordinating center with a site champion) is a viable strategy for implementing antibiotic stewardship at a distance. Over the past decade, HSR&D has funded nearly a dozen studies on antibiotic stewardship, including an ongoing study on the implementation of a multidisciplinary video-conference antimicrobial stewardship team (VAST). If successful, VAST could be deployed nationally.

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**Caring Contacts**. Suicide rates for Veterans are higher than the general population, thus suicide prevention is a high priority for VA. Caring Contacts (CC) is an intervention that sends brief, non-demanding messages to Veterans at high risk of suicide repeatedly over time to communicate that people care about them. Led by **Sara J. Landes, PhD**, a QUERI-funded project showed that it was feasible to implement CC in VA emergency department and urgent care settings in a way that allows for reach and minimizes provider burden (Landes et al., 2021). Currently, this successful suicide prevention intervention is being implemented in 20 VA emergency departments and urgent care settings across seven VISNs. As of May 2022, more than 1,800 Veterans have received CC. In the evaluation, Veterans who received CC reported that they appreciated receiving the cards. Comments included, "*It made me feel like I wasn't a number. Like it was more personable and seems like they really took the time out to care...*" and "*I appreciate them sending the cards out though to check on me because... I have several suicidal attempts. That made me feel good, that hey, I'm being thought about*." Investigators also are looking at the intervention's effectiveness, as well as issues regarding its implementation. In addition, a QUERI partnered evaluation is examining the impact of implementing this intervention among Veterans who contact VA's Veterans Crisis Line; QUERI investigators also will provide guidance to enhance sustainability of the Caring Contacts program.

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**CART Program**. The "Clinical Assessment, Reporting, and Tracking System for Cardiac Catheterization Laboratories (CART-CL)" was a quality improvement program with a real-time, structured data tracking system using data elements from the American College of Cardiology National Cardiovascular Data Registry. It was created by HSR&D/QUERI in collaboration with VA Patient Care Services, the Office of Quality and Performance, and the Office of Information and Technology to provide quality assessment capabilities for invasive cardiac procedures from 2004–2009. Since then, CART-CL has evolved and expanded to become the CART Program housed within the VHA Office of Quality and Patient Safety and now serves as the primary quality and safety resource for many medical disciplines in partnership with the Office of Specialty Care. The CART Program model reflects VA's ability to lead the nation in innovative health information technology and quality of care, meaningfully improving patient safety and outcomes.

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**COPES Program**. Chronic pain has wide-ranging effects including interference with physical and emotional functioning, sleep, and quality of life. It can also lead to a dependence on prescription pain medication, including opioids. Over several years, HSR&D and QUERI investigators developed and evaluated the "Cooperative Pain Education and Self-management" or COPES program, which uses interactive voice response technology to allow Veterans with pain to participate in cognitive-behavioral therapy from their homes. Based on the success of both HSR&D and QUERI research, VA's Pain Management, Opioid Safety, and Prescription Drug Monitoring Program will fund a clinical version of COPES, a technology-based, accessible, sustainable version of cognitive-behavioral therapy for chronic pain.

*The success of this research has supported VA's Pain Management Program in funding a clinical version of COPES to help Veterans better manage chronic pain.*

**Oral Contraceptive Prescribing**. HSR&D investigator **Sonya Borrero, MD, MS**, led a high-profile study published in *JAMA Internal Medicine* on the financial implications for VA of dispensing 12-month supplies of oral contraceptive pills. This research demonstrated that, compared to 3-month dispensing, 12-month dispensing is expected to result in an absolute reduction of 24 unintended pregnancies per 1,000 women Veterans per year, which would save VA an estimated $2.1 million annually. Informed by this research, Dr. Borrero and HSR&D researchers Drs. Deirdre Quinn and Lisa Callegari began the "Contraception on Demand" demonstration project, which combines pharmacist provision of hormonal contraception with 12-month dispensing. This project is now being implemented across multiple VA facilities and is a finalist in the 2022 VHA Shark Tank competition.

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**Patient-Aligned Care Team (PACT)**. VA conducted a body of research supporting the appropriate implementation of the PACT care model; much of it carried out by HSR&D over more than a decade (*FORUM*, 2011). Further, HSR&D's Improving Quality and Safety through Better Communication (part of HSR&D's PACT CREATE effort) worked with the VA Primary Care Program Office to enhance PACT care. Continually improving PACT, HSR&D has also facilitated use of the ED-PACT Tool to improve coordination between VA emergency departments and PACT teams, as well as developing a Homeless PACT Program. In addition, HSR&D/QUERI investigators evaluate PACT. For example, QUERI's Social Work Effectiveness for Rural Veterans Evaluation partners with VA's National Social Work Program Office to evaluate the Social Work PACT Staffing Program.

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**Patient Safety**. HSR&D investigators' guidance on the safe use of electronic health records (EHRs) is part of a new federal policy on Medicare reimbursement to hospitals. This is the culmination of work for which **Hardeep Singh, MD, MPH**, and his team were awarded the 2016 HSR&D Health System Impact Award for conducting research to improve communication of test results, identify and reduce diagnostic errors, and improve patient safety. Dr. Singh and his team developed several innovations, including trigger tools to identify patients with missed or delayed follow-up of test results, safety assessment guides for EHRs, and decision-support software for the EHR. Further, Dr. Singh received the 2021 Eisenberg Patient Safety and Quality Award, which recognizes major individual, local, and national achievements in healthcare that improve patient safety and healthcare quality, for his work on initiatives to measure and improve the communication of diagnostic test results to patients and clinicians. Working with his team, Dr. Singh conducted extensive research on the safe use of EHRs that resulted in a compendium of safety checklists known as the SAFER Guides, which allow healthcare organizations to address safety issues related to the EHR.

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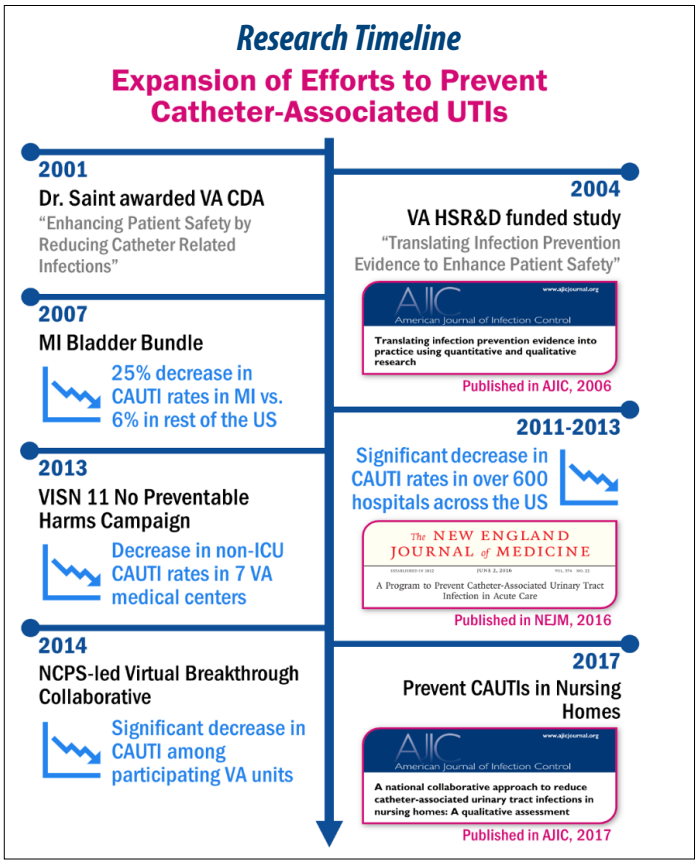
**Preventing Catheter-Associated Urinary Tract Infections (CAUTI) in Acute Care**. A portfolio of projects over more than a decade by HSR&D investigators **Sarah Krein, PhD, RN**, and **Sanjay Saint, MD, MPH**, earned the 2017 HSR&D Health System Impact Award. Their work documented the harms associated with the overuse of urinary catheters and demonstrated that an organized set of practices to reduce catheter use can lower rates of CAUTI. Further, researchers assessed sustainability over an 8-year post-intervention period (March 2011–July 2019) at one VA Medical Center that implemented many of the prevention practices in advance of a broader VISN rollout. This study found an ongoing decrease in catheter use and sustained reduction in inappropriate urethral catheters over the study period (Fowler, et al., 2021). Over the years, these investigators have worked with several partners (both VA and non-VA) to prevent CAUTI and other catheter harms. Partners have included VISN 11 (now part of VISN 10), VA's Inpatient Evaluation Center, VA's National Infectious Diseases Service, the Michigan Health and Hospital Association Keystone Center for Patient Safety, the American Hospital Association, Agency for Healthcare Research and Quality, and the Centers for Disease Control and Prevention.




**Primary Care-Mental Health Integration (PC-MHI)**. HSR&D research conducted over 20 years contributed to the successful integration of primary and mental healthcare. VAMCs and community-based outreach clinics are now mandated to provide PC-MHI services. Findings indicated that increasing primary care clinical engagement in PC-MHI services was accompanied by a reduction in general mental health visits, suggesting that PC-MHI programs reduce reliance on general mental health services clinics. Further,Veterans who received same-day PC-MHI services had more than twice the odds of receiving subsequent mental healthcare within 90 days. Receipt of PC-MHI was also associated with post-9/11 Veterans receiving mental or medical care sooner. Finally, investigators determined that the co-location of primary care services with VA mental health clinics was associated with better quality of care for Veterans with serious mental illness.

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**SCOUTT Initiative.** Among Veterans receiving VA healthcare, there has been a sharp rise in the number of patients diagnosed with opioid use disorder: from 25,031 in 2003 to 61,420 in 2019. In response, VA's Office of Mental Health & Suicide Prevention initiated the Stepped Care for Opioid Use Disorder, Train the Trainer (SCOUTT) Initiative to facilitate access to medication treatment for opioid use disorder (MOUD) in VA non-substance use disorder care settings. Developed by HSR&D/QUERI investigators over several years, the initial phase of SCOUTT across 18 facilities has resulted in an increase of 271% in Veterans receiving buprenorphine and 243% in clinicians prescribing buprenorphine—an effective MOUD—over the initial four years of the initiative. Since SCOUTT launched, more than 2,600 patients with an opioid use disorder have initiated buprenorphine. Thus far, VA has implemented the SCOUTT program in 37 of its facilities, and QUERI investigators are currently evaluating the implementation of SCOUTT.

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**STRIDE Program**. Immobility during hospitalization is a key contributor to hospital-associated disability. Developed by HSR&D/QUERI investigators with support from the Office of Geriatrics and Extended Care, the STRIDE supervised walking program helps hospitalized older Veterans improve their mobility and functional independence. High participation and satisfaction in STRIDE during the first year of implementation at the Durham VA Health Care System highlighted the gap in care filled by the program. STRIDE participants had shorter hospitalizations (4.7 days compared to 5.7 days) and were more likely to be discharged to home (92% compared to 74% discharged to a nursing home). Since then, Function QUERI has partnered with five national VA program offices and assisted more than 40 medical centers in training over 800 providers in the STRIDE intervention, which has impacted the lives of more than 7,000 Veterans.

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**Surgery for Frail Veterans.** HSR&D investigators showed there are no "low-risk" surgeries in high-risk frail patients, which led to the Surgical Pause Practice that is saving Veteran lives. **Daniel Hall, MD, MDiv, MHSc**, and team developed a highly effective Risk Analysis Index (RAI) clinical tool to screen frail elderly Veterans before they have surgery. The Surgical Pause Practice, utilizing the RAI, screens for frailty in approximately 30 seconds, reliably identifying the highest risk patients at the point-of-care. Patients at highest risk are referred for further evaluation, often using an interdisciplinary approach that can include both preoperative goal clarification and pre-habilitation. Working with a VHA Innovation Ecosystem, Diffusion of Excellence, Diffusion Specialist, Dr. Hall and colleagues also developed and executed a national diffusion agreement, as well as a national CPRS (computerized patient record system) template that facilitates frailty assessment with the RAI. After pilot testing at 11 VAMCs, the RAI Frailty Tool was released nationally on September 13, 2021. In FY2021, the Surgical Pause reached more than 13,600 Veterans, identifying over 3,000 as frail. A nationwide Surgical Pause meeting is being planned to bring together national service officers, content experts, early adopters with experience, and those seeking advice on how best to implement this intervention.

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**Telemedicine Outreach for PTSD.** To improve mental health for Veterans living in rural areas, VA launched telehealth programs that will give those with PTSD remote access to psychotherapy and related services. One program called Telemedicine Outreach for PTSD—virtual team-based care for rural Veterans with PTSD—has been shown to significantly decrease PTSD symptoms among Veterans compared to patients in usual care. HSR&D investigators began work on this intervention in 2010. Some of those same researchers, led by **John Fortney, PhD,** continue to address barriers to psychotherapy for Veterans with PTSD, striving to improve the implementation of telemedicine collaborative care. Recently, they conducted a comparative-effectiveness study that compared tele-integrated care with tele-referral care and found that both tele-methods significantly improved outcomes in patients with PTSD and bipolar disorder. This project is now being implemented across multiple VA facilities.

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