



## **Our Mission**

**To enhance patient engagement in and  
provider use of evidence-based practices  
for Veterans with chronic disease**

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**Director:** Steven Fu, MD, MSCE    **Deputy Director:** Nina A. Sayer, PhD

**Associate Directors:** Melissa Partin, PhD and Brent Taylor, PhD

## CCDOR FY16 Highlights

- **Dr. Erin Krebs** was approved for a \$12.5 million Patient-Centered Outcomes Research Institute (PCORI) grant for her comparative effectiveness study to improve pain management and opioid safety in Veterans.
- **Dr. Aasma Shaukat** is the 2016 recipient of the American Gastroenterological Association Young Investigator Award in Clinical Science.
- **Drs. Elisheva Danan and Denise Duan-Porter** were hired under the Minneapolis VA Quality, Safety and Value (QSV) Program, which seeks full-time academic general internists with quality improvement, implementation science, comparative effectiveness, or health services research expertise.
- **Melvin Donaldson, MS**, who is pursuing an MD/PhD in Epidemiology, received the Ruth L. Kirschstein National Research Service Award Individual Predoctoral MD/PhD Fellowship by NIH's National Center for Complementary and Integrative Health.



**Congratulations on these amazing accomplishments!**

## In this Issue

- Highlights
- ESP Reports Receive National Attention
- Dr. Polusny MBSR for PTSD
- Dr. Fu Proactive Smoking Cessation
- Dr. Sayer Expressive Writing
- Dr. Lederle Diuretic Comparison Project
- Dr. Erbes VA-CRAFT
- Selected Publications

## Calendar

**NEW!** Implementation Science Journal Club—4th Tuesday monthly

CCDOR Research Seminar—Nov 10

Veterans Day—Nov 11

Thanksgiving Day—Nov 24

## ESP Reports Receive National Attention

### Benefits and Harms of the Mediterranean Diet

**Dr. Hanna Bloomfield** and the Minneapolis VA Evidence-based Synthesis Program (ESP) team was commissioned by VA's National Center for Health Promotion and Disease Prevention and Primary Care Services to update prior reviews on the association between diet and mortality and morbidity and to specifically assess the implications for the treatment and prevention of common chronic conditions in the Veteran population. The Mediterranean diet—characterized by high intake of olive oil, fruits and vegetables, whole grains and cereals, legumes, fish, and nuts;

low intake of red meat, dairy products, and sweets; and moderate intake of red wine with meals—was of particular interest.

Dr. Bloomfield and the ESP team conducted the current review to answer three key questions: 1) Is the Mediterranean diet more effective than other diets in preventing death or the development of type 2 diabetes mellitus, cardiovascular disease, cancer, hypertension, cognitive impairment, or kidney disease?; 2) Compared to other diets, is the Mediterranean diet associated with fewer adverse outcomes (including death) or less disease progression in people who already have diabetes, cardiovascular disease, cancer, hypertension, cognitive impairment, rheumatoid arthritis, or kidney disease?; and 3) What is the observed

## ESP Reports Receive National Attention, Cont'd

adherence to the Mediterranean diet in studies conducted in the United States or Canada?

Results showed that among 93 papers that reported on 55 studies, there is limited evidence that suggests that a Mediterranean diet with no restriction on fat intake may reduce the incidence of cardiovascular events, breast cancer, and type 2 diabetes mellitus and may not affect all-cause mortality. Thus, while the Mediterranean diet is promising, there is low or insufficient evidence, especially in North American and US Veterans, for its effect on these outcomes.

Findings were published in the July 2016 Annals of Internal Medicine and featured in over 10 news reports, including CNN and Time Magazine. Report available at <http://www.hsrd.research.va.gov/publications/esp/med-diet.cfm>.

### Pharmacist-Led Chronic Disease Management

Annals of Internal Medicine also published in its July 2016 issue the results of a systematic review conducted by **Dr. Nancy Greer** and the Minneapolis VA ESP team that aimed to determine the effectiveness and harms of pharmacist-led chronic disease management compared to usu-

al care. Chronic disease management is multi-component and includes interventions such as immunizations, medication monitoring and disease self-care and support. There is evidence that when pharmacists are involved in patient care, there is an increase in access to care and improvement in patient outcomes.

The review found that evidence on the effects and harms of pharmacist-led care is lacking. However, there was moderate evidence that compared to usual care, pharmacist-led care increased patients' goal attainment for blood pressure, cholesterol and blood glucose. In addition, pharmacist-led care increased the number or dosage of medications patients received. Dr. Greer and colleagues concluded that whether attainment of goals and increased medication use is associated with better quality of care and improved clinical outcomes requires further research. Report available at <http://www.hsrd.research.va.gov/publications/esp/pharmacistcare.cfm>.



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## Featured Research

### MBSR for PTSD: RCT

**Dr. Melissa Polusny** and colleagues conducted a comparative effectiveness trial of mindfulness-based stress reduction (MBSR) therapy for PTSD which appeared in the August 4, 2015 issue of JAMA. The study showed that not only do Veterans show clinically significant improvement in their PTSD symptom severity with this treatment, improvements are sustained two months after treatment. In addition, less than a quarter of Veterans in this study dropped out of MBSR. This is a critical finding because dropout rates for existing first-line treatments for PTSD in VA, cognitive processing therapy and prolonged exposure, are as high as 44%. Taken together, MBSR shows promise as an efficacious, tolerable treatment for Veterans with PTSD. Dr. Polusny was invited to provide leadership in VA Central

Office with a briefing on these findings, and findings were disseminated through an HSR&D Cyberseminar.

### Proactive Smoking Cessation

CCDOR Director, **Dr. Steven Fu**, and colleagues have received public attention for studies they conducted testing the effectiveness of a proactive care intervention in both Medicaid and MinnesotaCare users and VA users. Tobacco use remains the number one cause of premature death in the U.S., but just 6% of smokers quit long-term. The proactive intervention included 1) proactive outreach (smokers received mailings about available smoking cessation services followed by an outreach telephone call from a trained counselor who use motivational enhancement to encourage smoking cessation) and 2) an offer to receive telephone or in-person care. Both studies found the proactive

## Featured Research, Cont'd

intervention to be effective in getting more smokers to quit than smokers receiving usual care (13.5% vs. 10.9% respectively in VA users and 16.5% vs. 12.1% respectively in Medicaid/MNCare users). In May, Dr. Fu appeared on Minnesota Military Radio to discuss these findings and smoking cessation efforts that target Veterans. In addition, **Dr. Elisheva Danan** conducted a secondary analysis of the VA study and found that providers should proactively offer smoking cessation assistance not just to those who state a readiness to quit, but to all smokers including those who are currently not planning to quit. This work was published in *Journal of General Internal Medicine* and featured in the *Star Tribune* on May 5, 2016.

### Expressive Writing for Returning Veterans

Problems reintegrating into civilian life has been well-documented among returning Veterans. **Dr. Nina Sayer**, CCDOR Deputy Director, led a VA/DoD-funded study in which Veterans participated in a writing intervention to mitigate reintegration problems. Nearly 1,300 returning Veterans, about half of whom reported perceived reintegration problems, were randomized to an online expressive-writing intervention, factual control writing or no writing. Results showed that Veterans who wrote expressively had greater reduction in physical complaints, distress and anger. Veterans who wrote expressively also showed greater reductions in several outcomes including PTSD symptoms and reintegration difficulties. Thus, online expressive writing shows promise in improving physical and mental health outcomes in Veterans. Findings were featured in the November 2015 issues of *VA Research Currents* and *NY Magazine*. Dr. Sayer was also awarded the American Psychological Association Division 56 Outstanding Poster Award for this study.

### Diuretic Comparison Project

**Dr. Frank Lederle** and colleagues were also featured in *VA Research Currents* (January 2016) for their study to test an innovative, resource-saving method for conducting a clinical trial. The Diuretic Comparison Project (DCP) is a 6-site clinical trial that will test two forms of diuretic pills, both of which have established effectiveness. The DCP will examine whether this new study design is effective and

less costly than typical clinical trials. In the new method—called “point of care”—all study operations will occur centrally and eligible patients are recruited through medical record alerts that go to their VA primary care provider who can make the decision about whether the research team can contact the patient. Once patients are enrolled in the study, their data will be gathered through the medical record. Combined, these methods eliminate the need for study personnel at participating sites, thus potentially leading to a dramatic reduction in the cost of running a clinical trial. The study got underway in March 2016, and could be rolled out to additional VAs.

### VA-CRAFT

**Dr. Christopher Erbes** completed his pilot investigation entitled “Helping Families Help Veterans with PTSD and Alcohol Abuse: An RCT of VA-CRAFT,” one of CCDOR’s EBP4PTSD HSR&D-funded CREATE studies aimed to improve Veteran access to and engagement in evidence-based PTSD treatments. This project was a partnership between Dr. Erbes’s team and the National Center for PTSD (NC-PTSD) to test an innovative web-based tool (VA-CRAFT) that delivers an online version of the Community Reinforcement and Family Training (CRAFT) treatment. VA-CRAFT was developed by the NC-PTSD to be specific for Veterans, to be delivered online in an interactive self-help format, and to address both PTSD and substance use. It teaches family members how to care for themselves and communicate with their loved ones who have PTSD or substance use problems to increase their engagement in needed mental health services. Thirty-four family members of Veterans screening positive for PTSD or substance use problems were randomized to take the VA-CRAFT course while 32 were randomized to a wait list control conditions. Findings demonstrated that VA-CRAFT reduces caregiver burden among its users, but communication around treatment engagement remained. Qualitative interviews suggested key ways to improve the intervention and its outcomes by adding telephone coaching to the web-based component. Dr. Erbes and the NC-PTSD plan to continue to enhance and evaluate VA-CRAFT in larger clinical trials in order to better support families in helping their Veterans get the care that they need.

## Selected CCDOR Publications

Bloomfield HE, Koeller E, Greer N, MacDonald R, Kane R, Wilt TJ, MEDLINE O. Effects on Health Outcomes of a Mediterranean Diet With No Restriction on Fat Intake. *Annals of Internal Medicine*. 2016;165:491-500.

Greer N, Bolduc J, Geurkink E, Rector T, Olson K, Koeller E, MacDonald R, Wilt TJ. Pharmacist-led Chronic Disease Management: A Systematic Review of Effectiveness and Harms Compared with Usual Care. *Annals of Internal Medicine*. 2016;165:30-40.

Polusny MA, Erbes CR, Thuras P, Moran A, Lamberty GJ, Collins RC, Rodman JL, Lim KO. Mindfulness-based stress reduction for posttraumatic stress disorder among veterans: a randomized clinical trial. *JAMA*. 2015;314:456-65.

Fu SS, van Ryn M, Nelson D, Burgess DJ, Thomas JL, Saul J, Clothier B, Nyman JA, Hammett P, Joseph AM. Proactive tobacco treatment offering free nicotine replacement therapy and telephone counselling for socioeconomically disadvantaged smokers: a randomised clinical trial. *Thorax*. 2016;71:446-53.

Danan ER, Joseph AM, Sherman SE, Burgess DJ, Noorbaloochi S, Clothier B, Japuntich SJ, Taylor BC, Fu SS. Does motivation matter? Analysis of a randomized trial of proactive outreach to VA smokers. *Journal of General Internal Medicine*. 2016;31;878-87.

Sayer NA, Noorbaloochi S, Frazier PA, Pennebaker JW, Orazem RJ, Schnurr PP, Murdoch M, Carlson KF, Gravely A, Litz BT. Randomized Controlled Trial of Online Expressive Writing to Address Readjustment Difficulties Among US Afghanistan and Iraq War Veterans. *Journal of Traumatic Stress*. 2015;28:381-90.

Wilt TJ, MacDonald R, Brasure M, Olson CM, Carlyle M, Fuchs E, Khawaja IS, Diem S, Koffel E, Ouellette J, Butler M. Pharmacologic treatment of insomnia disorder: an evidence report for a clinical practice guideline by the American College of Physicians. *Annals of Internal Medicine*. 2016;165;103-12.

Spoont MR, Williams JW, Kehle-Forbes S, Nieuwsma JA, Mann-Wrobel MC, Gross R. Does this patient have posttraumatic stress disorder?: rational clinical examination systematic review. *JAMA*. 2015;314:501-10.

Lederle FA, Cushman WC, Ferguson RE, Brophy MT, Fiore LD. Chlorthalidone Versus Hydrochlorothiazide: A New Kind of Veterans Affairs Cooperative Study. *Annals of Internal Medicine*. 2016. doi: 10.7326/M16-1208. [Epub ahead of print]

Partin MR, Gravely A, Gellad ZF, Nugent S, Burgess JF, Shaukat A, Nelson DB. Factors associated with missed and cancelled colonoscopy appointments at Veterans Health Administration facilities. *Clinical Gastroenterology and Hepatology*. 2016;14:259-67.

Kehle-Forbes SM, Campbell EH, Taylor BC, Scholten J, Sayer N. Does Co-Occurring Traumatic Brain Injury Affect VHA Outpatient Health Service Utilization and Associated Costs Among Veterans With Posttraumatic Stress Disorder? An Examination Based on VHA Administrative Data. *The Journal of Head Trauma Rehabilitation*. 2016. [Epub ahead of print]

Krebs EE, Kroenke K, Wu J, Bair MJ, Kozak MA, Yu Z. Opioid Use as a Predictor of Health Care Use and Pain Outcomes: Analysis of Clinical Trial Data. *Pain Medicine*. 2016. [Epub ahead of print]

Osei-Bonsu PE, Bolton RE, Stirman SW, Eisen SV, Herz L, Pellowe ME. Mental Health Providers' Decision-Making Around the Implementation of Evidence-Based Treatment for PTSD. *The Journal of Behavioral Health Services & Research*. 2016. [Epub ahead of print]

Koffel E, Khawaja IS, Germain A. Sleep Disturbances in Posttraumatic Stress Disorder: Updated Review and Implications for Treatment. *Psychiatric Annals*. 2016;46:173-6.

Meis LA, Erbes CR, Kramer MD, Arbis PA, Kehle-Forbes SM, DeGarmo DS, Shallcross SL, Polusny MA. Using Reinforcement Sensitivity to Understand Longitudinal Links Between PTSD and Relationship Adjustment. *Journal of Family Psychology*. 2016. [Epub ahead of print]

Melzer AC, Feemster LC, Crothers K, Carson SS, Gillespie SE, Henderson AG, Krishnan JA, Lindenauer PK, McBurnie MA, Mularski RA, Naureckas ET. Respiratory and Bronchitic Symptoms Predict Intention to Quit Smoking among Current Smokers with and at Risk for COPD. *Annals of the American Thoracic Society*. 2016;13:1490-6.

Lederle FA, Stroupe KT, Kyriakides TC, Ge L, Freischlag JA. Long-term Cost-effectiveness in the Veterans Affairs Open vs Endovascular Repair Study of Aortic Abdominal Aneurysm: A Randomized Clinical Trial. *JAMA Surgery*. 2016. [Epub ahead of print]

Onoye JM, Spoont M, Whealin JM, Pole N, Mackintosh MA, Spira JL, Morland LA. Improving Assessment of Race, Ethnicity, and Culture to Further Veteran PTSD Research. *Psychological Trauma: Theory, Research, Practice, and Policy*. 2016. [Epub ahead of print]

## Center for Chronic Disease Outcomes Research (CCDOR)

**Director:** Steven Fu, M.D., M.S.C.E.

**CCDOR** was founded in 1998 and currently employs 24 core MD and PhD Investigators and over 30 Research and Administrative Support Staff. It supports over 70 funded studies and several research training programs for post-doctoral level Investigators.

### **Center of Innovation**

In 2013, CCDOR became a VA Center of Innovation (COIN). The COIN program rewards research innovations and partnerships to ensure that research has the greatest possible impact on VHA policies, healthcare practices, and health outcomes for Veterans. COINs emphasize detailed strategic planning and collaboration in one or more focused areas of research, partnerships with VA clinical and/or operations leaders, and accelerated movement toward implementation and impact.

### **CCDOR's Focused Areas of Research**

- Evidence-based therapies for PTSD
- Cancer prevention and screening (tobacco use, colorectal, prostate)
- Chronic pain

### **Partner Offices**

- The Office of Mental Health Operations/The Office of Mental Health Services
- The National Center for PTSD
- VA Primary Care Program Office
- VA Midwest Health Care Network, VISN 23
- National Center for Health Promotion and Disease Prevention (NCP)
- VHA Pain Management (Program Office)

### **For More Information**

If you would like more information about CCDOR, please contact us.

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