



**CENTER FOR
APPLIED HEALTH RESEARCH**



**HEALTH SCIENCE CENTER
TEXAS A&M UNIVERSITY**

**Health Outcomes Core
FY2015
2nd Quarter Report
(October – December 2014)**

Co-Directors:

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Dr. John E. Zeber

Vision

The Health Outcomes Core (HOC) was established in September, 2010 with the following vision: by the end of FY2016, HOC will be a self-sustaining organization conducting research that contributes to the improvement of healthcare, and that drives the national mental health policy debate to focus on integrated patient care and to promote mental health care parity. Within the outcomes research field, HOC will develop a collaborative network of national and international researchers and achieve national recognition as a leading mentoring center for the development of health outcomes researchers. This report provides an update on our progress toward realizing our Vision.

Goals for 2015

1. Conduct applied health research resulting in publication of new knowledge to improve the delivery of health care.
2. Integrate applied health care research results into Baylor Scott & White Health (BSWH) and VA clinical practice.
3. Develop collaborative research opportunities with Texas entities, including our academic affiliates and community partners.
4. Expand regional and national exposure for HOC investigators and research
5. Provide methodological and research career development expertise to external investigators
6. Mentor beginning and intermediate researchers in applied health research, within our supporting institutions and elsewhere

2nd Quarter FY 2015 Highlights:

- 4 grant proposals submitted; 3 grant proposals funded
- 4 publications accepted/published and 13 others under review at quarter's end
- 1 brief published by the VA HSR&D Center for Information Dissemination and Education Resources (CIDER) CO Briefs
- Consults: 21
- Completed 10 manuscript reviews

Executive Summary

The Health Outcomes Core of CAHR (HOC) continued to improve on its strong start for the fiscal year, matching or exceeding the previous quarter's output in consults, funded grants, manuscripts under review and manuscript reviews for journals. The VA's HSR&D CIDER published a Central Office brief on a recently accepted manuscript by mentee Dr. Janke-Stedronky from Dr. Copeland's STOPP study titled "Association of Parental Status and Diagnosis of Posttraumatic Stress Disorder among Veterans of Operations Iraqi and Enduring Freedom." In the meantime, Dr. Copeland continues to represent Baylor Scott & White on the HMORN Governing Board, while Dr. Zeber remains chair of the VA's Institutional Review Board and serves on an international editorial board. Both senior investigators serve on national advisory boards and invited work groups, and as site leads for national research networks. We look forward to continuing our service and commitment to both institutions while further developing what we believe are important multifaceted missions.

New/Developing Areas of Research and Collaboration

Infectious Disease

We are continuing to work on several implementation and laboratory analysis projects to help reduce hospital-associated infections, further expanding on Dr. Zeber's current VA-funded merit study on which Dr. Copeland is a co-investigator and Dr. Stock, a consultant. Findings have been accepted for publication in *The American Journal of Infection Control*. A new project to trial a UV-based air-cleaning unit in BSW operating rooms is moving forward, as are plans to test a novel self-decontaminating surface in hospital rooms, and microbial sampling to examine possible MRSA resistance and applications for addressing Ebola.

Women's Health

Drs. Copeland, Zeber and Stock wish to further increase their efforts targeting women veterans, including an active role in the national women's practice-based research network.

Children's Health

The collaboration between the Cardiovascular and Mental Health research networks is exploring pediatric lipid disorders and how clinicians and families cope with children's health issues. Dr. Catherine McNeal, the PI for the Cardiovascular Research Network, with co-investigator Dr. Copeland (PI for the Mental Health Research Network), has created two major data resources, one on neonates (1988-2008) and one on pediatric lipids (2001-2013). Collaborators include other HMORN sites and academic partners.

HMORN

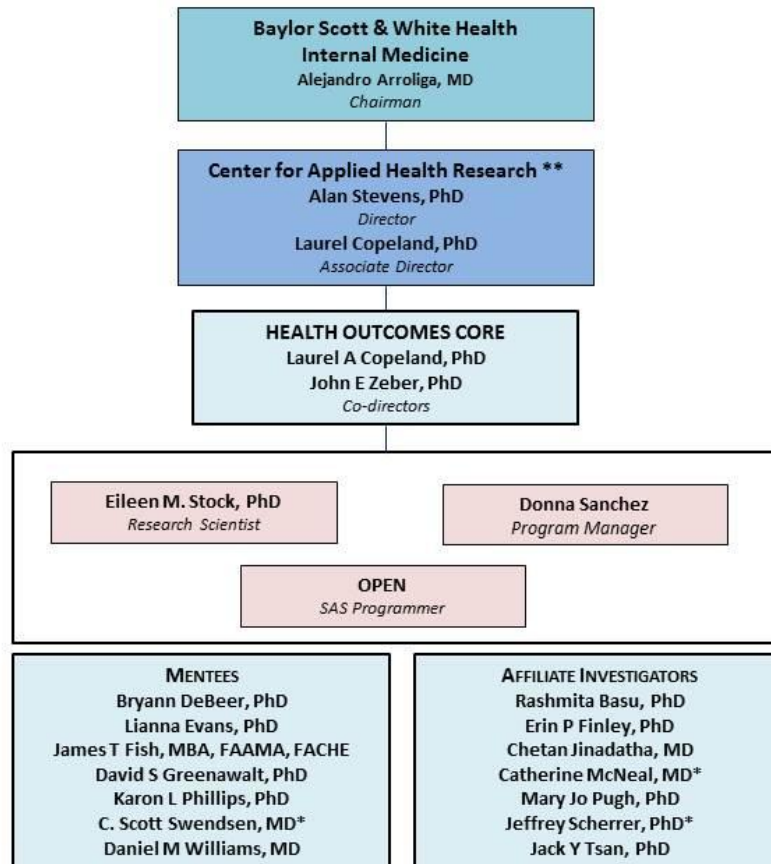
Recently, HOC investigators have leveraged their status within the HMORN to engage in newly developing projects. These include: a new NIDA center grant application for an Addiction Research Network submitted in December (Zeber, site lead); an R21-funded study of opioids and depression (Scherrer – PI, Copeland – Co-I) and a related R01 being prepared for submission in February 2015; a drug safety project on Naloxegol (Zeber, site lead); as well as new proposals in the areas of tele-psychiatry and adolescent anxiety. This participation reflects several years of collaborative efforts preparing for BSWH's role in these and other HMORN projects.

Other Projects

A final exciting collaborative project is slated to begin in May 2015 among VA, DoD, academic medicine and private enterprise. It will examine the transition out of the military into civilian life. The project will document the trajectories of military personnel re-entering civilian life over the first 2.5 years after separation from the armed forces.

HOC Organizational Chart

The HOC is one of three major work groups within CAHR and works cooperatively with colleagues such as Dr. Basu in the Center for Aging and Care (A Stevens, Director) and the Community Research Center for Senior Health (A Stevens, Director).



* New to HOC in FY2015

** Jointly sponsored by Central Texas Veterans Health Care System

Key to metrics reporting tables

- **bold** = HOC investigator
- underline = HOC affiliate investigator
- *italics* = post-doc, Baylor Scott & White or Central Texas VA colleague or mentee

Grants/Proposals

Newly Funded

Grants/Proposals	Role	Agency
"Identifying Specific Non-VHA Healthcare with the Mental Health Research Network"	Copeland LA, Zeber JE, MacCarthy AA	VHA HSR&D via QUERI RRP
"Understanding Barriers and Facilitators in Pregnancy and Maternity Care Delivery among Women Veterans"	Mattocks, Kristin (PI), Zeber JE (Site PI) .	VHA HSR&D
"Hypertriglyceridemia: Relationship with Acute Pancreatitis and Cardiovascular Disease"	Richard Erickson (PI/Mentor), Copeland LA (PI/Mentor) , <i>C. Scott Swendsen (Mentee)</i>	BSW Research Mentor Award

Submitted and Reviewed

Grants/Proposals	Role	Agency
"Adapting a maximum entropy machine-learning algorithm for use as an analytic tool for epidemiologists and physicians"	EJ Westhus– PI (St Louis Univ School of Med); <u>JF Scherrer</u> (co-I), Stock EM (consultant)	Patient-Centered Outcomes Research Institute (PCORI)
"Immunizations in Infancy: An Opportunity to Prevent Cardiovascular Disease & Promote Early Heart-Healthy Nutrition in High-Risk Families"	Copeland LA (Co-I)	Gerber Foundation
"A study of the effectiveness of no-touch disinfection technologies and barriers to effectiveness during implementation in acute care areas: A Veterans hospital study"	<u>Jinadatha C</u> (PI), Ganachari-Mallappa N (Co-I), Copeland LA (Co-I), Zeber JE (Co-I), Stock EM (Co-I)	APIC (Association for Professionals in Infection Control) Heroes Implementation research scholar award
"Addictions Research Network"	Weisner, C (PI), Zeber JE (site lead)	NIDA

Ongoing Funded Projects

Grants/Proposals	Role	Agency
“Pulsed Xenon Technology Targeting Hospital Acquired Infections, Cost and Outcomes”	Zeber JE (PI), Copeland LA (Co-I)	VHA HSR&D Merit Awards (04/2013 -- 03/2016; \$732,714)
“The Spread of High-Performance Integrated Care Delivery Systems: Assessing Two Hybrid Approaches” [Robert Reid - PI; Group Health]	Copeland LA (Site PI), Zeber JE (Co-I)	Commonwealth Fund (08/01/2012-12/31/2014; \$347,742)
“Mental Health Research Network II” [Greg Simon – PI; Group Health]	Copeland LA (Site PI), Zeber JE (Co-I)	NIMH (08/2014 – 07/2019; \$9.6 million)
“Homefront: Implementation and Evaluation of a Post-deployment Family Health Program”	Copeland LA (PI), Williams DM (Mentee)	Scott & White Research Mentored Awards Program (RMA) (12/2012-11/2014; \$10,000)
“Temporal Trends in Pediatric Lipid Screening and Treatment”	McNeal CJ (PI), Copeland LA (Co-I)	Wilhelm Foundation research support (01/2013 – 12/2014; \$22,000)
“A Study of Dog Adoption in Veterans with Posttraumatic Stress Disorder” [Stephen Stern – PI; STVHCS]	Copeland LA (Co-I)	VHA RR&D Merit Awards (07/2013-06/2015; \$220,000)
“Evaluation of an Ideal Cleaning Protocol in Acute Care and OR’s, and Evaluating Concept of Possible UV Resistance of Continuous Disinfection using Surface Coating Technology”	Jinadatha C (PI), Zeber JE (Co-I), Copeland LA (Co-I)	Xenex Healthcare (2013-2014; \$115,000)
“Advanced Center for Interventions and Service Research (ACISR) for Optimizing Long Term Outcomes in Bipolar Illness Interventions in Hispanic Communities” [Charles Bowden – PI; UT Health Science Center San Antonio]	Zeber JE (Co-I)	National Institute of Mental Health #1P30MH086045 (2011-2015; \$715,664)

Publications

Accepted/Published

- Alvarez CA, Mortensen EM, Makris UE, Berlowitz DR, **Copeland LA**, Good CB, Amuan ME, Pugh MJ. "Association of skeletal muscle relaxers and antihistamines on mortality hospitalizations and emergency department visits in elderly patients: A nationwide retrospective cohort study" *BMC Geriatrics*, in press (October 2014)
- Evans LD, **Zeber JE**, **Stock EM**, Morissette SB, MacCarthy AA, Sako EY, Lappin J, Lawrence VA, MacCarthy DJ, **Copeland LA**. "Post-transplantation Outcomes in Veterans with Serious Mental Illness" *Transplantation*, in press (2014)
- Jinadatha C, Villamaria F, Ganachari-Mallappa N, Brown D, Liao I, **Stock EM**, **Copeland LA**, **Zeber JE**. "Can Pulsed Xenon Ultraviolet Disinfect Aerobic Bacteria in the Absence of Manual Disinfection?" *American Journal of Infection Control*, in press (2014)
- Case DJ, **Copeland LA**, **Stock EM**, *Herrera HR*, Pfanner TP. "Pneumococcal Vaccination Rates in VHA Patients with Inflammatory Bowel Disease" *Medicine*. 2014 in press December (2014)

Submitted/Under Review

- Ahmedani BK, Stewart C, Simon GE, Lynch F, Lu CY, Waitzfelder BE, Solberg LI, Owen-Smith AA, Beck A, **Copeland LA**, Hunkeler EM, Rossom RC, Williams LK. "Racial/ethnic differences in healthcare visits made prior to suicide attempt across the United States"
- Basu R, **Zeber JE**, **Copeland LA**, Stevens AB. "Role of co-existence of multiple chronic conditions on the longitudinal decline in cognitive performance in the US"
- Copeland LA**, **Zeber JE**, Sako EY, Mortensen EM, Pugh MJ, Wang CP, Restrepo MI, Flynn J, MacCarthy AA, Lawrence VA. "Serious mental illnesses associated with receipt of surgery and postoperative outcomes in retrospective analysis of patients in the Veterans Health"
- Copeland LA**, **Zeber JE**, Thibodeaux LV, *McIntyre RT*, **Stock EM**, Hochhalter AK. "Correlates of Health Literacy among Discharged Inpatients Receiving Medical Aid"
- Hutchins DS, **Zeber JE**, Roberts CS, Williams AF, Manias E, Peterson AM. "Initial Medication Adherence - Review and Recommendations for Good Practices in Outcomes Research: An ISPOR Medication Adherence and Persistence Special Interest Group Report"
- Owen-Smith AA, Stewart C, Green CA, Druss B, Ahmedani BK, Waitzfelder BE, Rossom RC, **Copeland LA**, Simon G. "Adherence to Statin Medications in Patients with Schizophrenia vs. Patients without Psychiatric Illness"
- Rivera KM*, **Copeland LA**, McNeal CJ, Mortensen EM, Pugh MJ, MacCarthy DJ. "Use of healthcare system-supplied aspirin by veterans with postoperative heart attack or unstable angina"
- Stock EM**, **Copeland LA**, *Tsan JY*, **Zeber JE**, Veronin MA, Thompson AW. "Method of Analysis as an Influential Factor in Modeling Admission among Veterans of Iraq/Afghanistan Deployments"
- Stock EM**, **Zeber JE**, McNeal CJ, Banchs JE, **Copeland LA**. "Psychotropic Pharmacotherapy associated with QT Prolongation among Veterans with Posttraumatic Stress Disorder"
- White HD, *Henry C*, **Stock EM**, Arroliga AC, Ghamande S. "Risk Stratification of Pleural Infections"
- Williams D*, *Tsan JY*, Trent ME, **Copeland LA**. "Implementation of a Community Psychological Treatment Program for Military Families: Project Homefront"

Other Service Activities & Accomplishments

In addition, HOC investigators contributed in numerous ways to the research and academic missions of their institutions, as well as serving as representatives to local, national and international research entities. They have contributed their expertise to many research endeavors and were also honored for their roles on various working groups, advisory boards, and special committees. These activities include:

- Drs. Stock, Zeber and Copeland provided 21 sessions of methodological consulting for VA and BSWH clinical colleagues to support research projects
- Drs. Zeber, Copeland and Stock provided professional service to their field via peer review of 10 manuscripts for journals
- Dr. Zeber has served as Chair of the VA Institutional Review Board since 2011; Drs. Copeland and Stock are IRB committee members and participating in the data security work group
- Dr. Zeber is a member of the International Medication Adherence work group (ISPOR) and led a recent study and systematic review
- Drs. Copeland and Zeber serve on the national Academy Health Advisory Board for the Comorbidities and Behavioral special interest groups, respectively
- Dr. Zeber is on the editorial board of the *World Journal of Psychiatry*
- Dr. Copeland continues to represent BSWH on the HMORN Governing Board
- Dr. Copeland joined the VHA's Rehabilitation Research & Development (RR&D) Scientific Merit Review Board in 2014
- Dr. Zeber is the Central Texas VA site lead for the national Women's Practice-Based Research Network (PBRN)

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