

ANNUAL REPORT

2016

DEPARTMENT OF HEALTH MANAGEMENT AND POLICY

CENTER FOR HEALTH POLICY AND RESEARCH

COLLEGE OF PUBLIC HEALTH - UNIVERSITY OF IOWA



24

total research projects

\$15,881,798

total direct funding for research

18

Center Associates

About the Center for Health Policy and Research

The Center for Health Policy and Research is the research arm of the Department of Health Management and Policy and is a University-wide interdisciplinary research collaborative. Faculty members from the Colleges of Public Health, Medicine, Dentistry, Pharmacy, Nursing, Business, and Liberal Arts and Sciences, and the Public Policy Center serve as investigators in a variety of studies. Staff plus doctoral students, master's degree students, and undergraduates assist with ongoing research projects.

The Center houses numerous projects led by Center Associates. On average, 20 to 30 research projects are funded through the Center at any given time. Remarkably, the Center houses this level of activity without any source of core funding

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to offset its operation. Primary project funding comes from the National Institutes of Health (NIH), the State of Iowa, the Agency for Healthcare Research and Quality (AHRQ), the Health Resources and Services Administration (HRSA), foundations, and private organizations.

The Rural Telehealth Research Center (RTRC) was established as a sub-unit of the Center for Health Policy and Research in 2015. RTRC is funded by the Federal Office of Rural Health Policy in HRSA to help build the evidence base supporting rural telehealth.

The Center for Health Policy and Research sponsors a number of educational activities. Our Friday Seminar Series showcases research updates from members of the Department, those around the University,

as well as special visitors. Faculty are able to share their cutting-edge research with their Departmental and College colleagues, and doctoral students present in order to have the opportunity to receive helpful critique and suggestions regarding their work.

The Center also promotes collaboration among health organizations through frequent exchanges with professional and provider associations, policy and planning groups, insurance organizations, health delivery institutions, and other members of the health services research and policy community.

We are delighted to bring you this 2016 Annual Report!

The following pages list faculty, staff, and students who received funding through Center projects in 2016, Friday Seminar Series presentations, research projects, publications and presentations by Center Associates and PhD students, plus highlights on several projects.

Center Associates



Kanika Arora, PhD

Assistant Professor

Research interests: aging, long-term care, intergenerational relations, program evaluation



Christopher Atchison, MPA

Clinical Professor

Research interests: health policy, public administration, public health, public health practice, public health systems research



Padmaja Ayyagari, PhD

Assistant Professor

Research interests: health economics, economics of aging, applied microeconomics



Sue Curry, PhD

Distinguished Professor and Dean

Research interests: health policy, implementation of evidence-based practice guidelines, behavioral risk factor modification, cancer prevention and control, community-based participatory research



Charles Fluharty, MDiv
Clinical Professor

Research interests: rural policy, rural community and economic development



Dan Gentry, PhD, MHA
Clinical Professor

Research interests: health services and policy, quality and the patient experience, program evaluation, health professions education



Brian Kaskie, PhD
Associate Professor

Research interests: health policies pertaining to aging populations, policies and health services use by older persons, including persons with Alzheimer's disease and psychiatric illnesses



A. Clinton MacKinney, MD, MS
Clinical Associate Professor

Research interests: rural health policy, physician and administration relationships, patient safety and quality improvement, population-based healthcare



Ian Montgomery, MA
Clinical Associate Professor

Research interests: developing a case-oriented text on medical practice administration



Keith Mueller, PhD

Gerhard Hartman Professor and Head

Research interests: implementation of the Affordable Care Act, delivery of health-care in rural areas, rural health policy



Dan Shane, PhD

Assistant Professor

Research interests: health economics, health insurance, applied econometrics, health care reform evaluations, physician incentives and health care reform



Tanya Uden-Holman, PhD

Clinical Professor

Research interests: workforce development, quality improvement and patient safety



Thomas Vaughn, PhD

Associate Professor

Research interests: health services organization and policy, leadership and quality, organizational factors associated with effectiveness



Marcia Ward, PhD

Professor

Research interests: health services, telehealth, patient safety and quality, rural healthcare delivery, healthcare utilization and outcomes,



George Wehby, PhD
Associate Professor

Research interests: health economics, applied econometrics, health services research, healthcare effectiveness, maternal and child health



Fredric Wolinsky, PhD
Professor and John W. Colloton Chair

Research interests: health-related quality of life, health and illness behavior among older adults, assessment of meaningful change in longitudinal modeling



Brad Wright, PhD
Assistant Professor

Research interests: access to healthcare for vulnerable populations, disparities in health and health care, safety-net and primary care providers, Medicaid and Medicare, health politics and policy, health reform



Xi Zhu, PhD
Assistant Professor

Research interests: organizational behavior, organization theory, health care policy and management, social network analysis, economic sociology

Center Associates include faculty in the Department of Health Management and Policy and others who are principal investigators on research projects based in the Center for Health Policy and Research.

Center Affiliates

Charles Alfero	HMS Center for Health Innovation
T. Renee Anthony	Occupational & Environmental Health, U of Iowa
Abby Barker	Washington University, St. Louis
Amanda Burgess	University of Southern Maine
Knute Carter	Biostatistics, University of Iowa
Marsha Cheyney	Occupational & Environmental Health, U of Iowa
Elizabeth Chrischilles	Epidemiology, University of Iowa
Andy Coburn	University of Southern Maine
Elizabeth Cook	Health Management and Policy, U of Iowa
Pam Ford-Taylor	University of Southern Maine
Kimberley Fox	University of Southern Maine
Jenna Gibbs	Occupational & Environmental Health, U of Iowa
Karisa Harland	Emergency Medicine, University of Iowa
Michael Jones	Biostatistics, University of Iowa
Leah Kemper	Washington University, St. Louis
Teresa Kittridge	Health Management and Policy/RUPRI, U of Iowa
Rolv Lie	University of Bergen
Jennifer Lundblad	Stratis Health
Michelle Martin	Health Management and Policy, U of Iowa
Timothy McBride	Washington University, St. Louis
Kimberly Merchant	Health Management and Policy, U of Iowa
Nicholas Mohr	Emergency Medicine, University of Iowa
Lina Moreno Uribe	College of Dentistry, University of Iowa

Center Affiliates include faculty and staff who receive a portion of salary support from research projects based in the Center for Health Policy and Research.

Alan Morgan	National Rural Health Association
Sue Nardie	University of Nebraska Medical Center
Steve North	Center for Rural Health Innovations
David Palm	University of Nebraska Medical Center
Edith Parker	Community and Behavioral Health, U of Iowa
Karen Pearson	University of Southern Maine
George Pink	University of North Carolina at Chapel Hill
Randy Randolph	University of North Carolina at Chapel Hill
Kristin Reiter	University of North Carolina at Chapel Hill
Jocelyn Richgels	Health Management and Policy/RUPRI, U of Iowa
Chika Takeuchi Richter	College of Dentistry, University of Iowa
Diane Schaeffer	Health Management and Policy, U of Iowa
Christopher Shea	University of North Carolina at Chapel Hill
Nuno Solano DeAlmeida	Health Management and Policy, U of Iowa
Kristie Thompson	University of North Carolina at Chapel Hill
Fred Ullrich	Health Management and Policy, U of Iowa
Kelli Vellinga	Consultant
Paula Weigel	Health Management and Policy, U of Iowa
Kevin Wellen	BKD, LLP
Karla Weng	Stratis Health
Wesley Winkelman	University of North Carolina at Chapel Hill
Kristi Yeggy	Health Management and Policy, U of Iowa
Tracy Young	Occupational & Environmental Health, U of Iowa

Center Graduate Research Assistants

Jure Baloh	Camden Bay	J. Alton Croker
Allison Davis	Alyssa Fletcher	Isaac Hooley
Aaron Horsfield	Steven Johnson	Wei Lyu
Erin Mobley	Nabil Natafqi	Matthew Nattinger
Andrew Potter	Shabbar Ranapurwall	Abiodum Salako
Teresa Salaway	Shabana Sidhu	Katherin Swanic
George Tzanetakos	Ashlee Venema	

Graduate Research Assistants are students in master's and PhD programs who receive a portion of salary support from research projects based in the Center for Health Policy and Research.



Seminar Series Presentations

Arora, K. "Does Paid Family Leave Reduce Nursing Home Use? The California Experience."

Ayyagari, P. "Health Insurance and Early Retirement Plans: Evidence from the Affordable Care Act."

Baloh, J. "Implementing TeamSTEPPS Briefs in Small Rural Hospitals: Applying the Kotter Model of Change."

Mobley, E. "Distribution of Disproportionate Share Hospital Payments to Rural and Critical Access Hospitals."

Mohr, N. "What Hath God Wrought? The Impact of Telemedicine on North Dakota Trauma Care and Outcomes."

Mueller, K. "Frontiers in Rural Health Services Research."

Mueller, K. "Priorities in Rural Health Policy for President..."

Natafqi, N. "Quality of Care in Critical Access Hospitals: Using TeamSTEPPS to Improve Communication."

Natafqi, N. "Telemedicine to Avoid Transfer from Rural Emergency Departments: Is it Cost-Effective?"

Nattinger, M. "Quality Differences Among 1915(c) Waivers Targeting Older Individuals: the Good, the Bad, and the Ugly."

Nattinger, M. "The Determinants of State Elderly 1915(c) Waiver Adoption."

Schweizer, M. "Systematic Literature Reviews, Meta-Analyses and Their Use in Healthcare-Associated Infection Research."

Shane, D. "Is the ACA Bringing the Family Back Together (for Tax Purposes)? Investigating the Dependent Coverage Mandate Effect on Dependent Tax Exemptions."

Ullrich, F. and Weigel, P. "Data Management: Where to Start."

Vaughn, T. "Are Ethical Decisions Shaped by Ideology?"

Ward, M. "Rural Telehealth Research Center: Winning and Launching a New Center."

Wehby, G. "Effects of the Minimum Wage on Infant and Child Health."

Wehby, G. "Genetic Risks for Chronic Conditions: Implications for Long-Term Wellbeing, Medicare Expenditures, and Heterogeneity in Policy Effects."

Wolinsky, F. "Activating Patients with a Tailored Bone Density Test Results Letter and Educational Brochure - the Good, the Bad, and the Ugly."

Wolinsky, F. "Beneficiary, Plan, and Market Factors that Affect Hip Fracture Prevention in Medicare Advantage Organizations."

Wolinsky, F. "Patient-Activation and the Pathway to Guideline Concordant Care after Bone Density Testing: The PAADRN Randomized Controlled Trial."

Wright, B. "Emergency Physician Decisions to Admit, Observe, or Discharge in England and the United States."

Zhu, X. "Identifying Care Teams in Electronic Health Records Using Social Network Analysis."

Rural Policy Briefs from the RUPRI



Medicaid Payment and Delivery System Reform: Challenges and Opportunities for Rural Health Systems

Keith J. Mueller, PhD; Charles Alfero, MA; Andrew Coburn, PhD; Jennifer Lundblad, PhD, MBA; A. Clinton MacKinney, MD, MS; Timothy McBride, PhD; (guest author) Paula Weigel, PhD

State Medicaid programs have grown dramatically from 10.4 percent of U.S. population covered in 2000 to 19.5 percent (about 72.4 million people) in 2014. Medicaid is currently the nation's largest public insurance provider. In rural areas, Medicaid provides essential, and otherwise unattainable, coverage for low-income households. For providers in rural areas, including hospitals, doctors, behavioral health providers, dentists, and a variety of institutional and community-based long-term services and supports (LTSS), the Medicaid program is a key source of financing and a significant contributor to local economies. Thus, it is important to examine the implications of changes in the design of state Medicaid programs and in their adoption of new approaches to provider payments for rural Medicaid beneficiaries as well as the capacity needed to build and sustain high-performing rural health systems. This study offered six recommendations related to Medicaid programming: 1) promote integrated and comprehensive primary care delivery; 2) promote integrated and comprehensive care across the health care continuum; 3) promote accountability for the health of the Medicaid population in rural communities; 4) promote measures, reporting standards, and payment approaches relevant to rural providers; 5) promote payment designs that recognize the nature and circumstances of rural providers and systems; and 6) provide technical assistance to rural providers during the Medicaid transition to value-based payment.

Spread of Accountable Care Organizations in Rural America

Keith J. Mueller, PhD and Fred Ullrich, BA

This brief updates a RUPRI Center analysis of the presence of Medicare Accountable Care Organizations (ACOs) in rural areas of the United States in 2013. Using participation data through 2015, the current brief finds that there has been broad growth in the number of places where ACO participating providers can be found, including rural locations. Medicare ACOs operate in 41.8 percent of all non-metropolitan counties. Non-metropolitan provider participation in ACOs increased considerably since 2013, especially in the South, West, and Northeast census regions.

Medicare Advantage Enrollment Update 2016

Fred Ullrich, BA and Keith J. Mueller, PhD

This annual brief examines Medicare Advantage (MA) enrollment data from March 2015 and March 2016. It shows that enrollment in MA and other prepaid plans increased, both nationally and in non-metropolitan areas, but the rate of growth has slowed compared to previous years. Specifically:

- The number of non-metropolitan beneficiaries enrolled in MA and other prepaid plans increased to 2,189,300 as of March 2016, representing 21.8 percent of all non-metropolitan Medicare beneficiaries compared with 31.5 percent of beneficiaries enrolled in MA and other prepaid plans nationally.
- While non-metropolitan enrollment continued to increase through March 2016, the annual growth rate slowed to 5.5 percent, compared to 6.8 percent between March 2014 and March 2015.
- Enrollment in private fee-for-service MA plans continued to decline both nationally and in non-metropolitan counties, while enrollment in other types of MA plans increased.
- The states with the highest percentage of non-metropolitan beneficiaries enrolled in MA plans continued to be Minnesota, Hawaii, Pennsylvania, Wisconsin, and New York, ranging from a high of 53.4 percent in Minnesota to 32.6 percent in New York.
- Non-metropolitan beneficiary enrollment in MA plans declined in Hawaii, Idaho, Ohio, Washington, and Wyoming.



Center for Rural Health Policy Analysis

Medicare Accountable Care Organizations: Quality Performance by Geographic Categories

Xi Zhu, PhD; Keith J. Mueller, PhD; Thomas Vaughn, PhD; Fred Ullrich, BA; A. Clinton MacKinney, MD, MS

This policy brief provides an analysis of the differences in Accountable Care Organizations (ACOs) performance on the quality measures among the Medicare Shared Savings Program ACOs with varying levels of rural presence. Findings indicate ACOs located in rural counties performed better than those in urban counties on Care Coordination/Patient Safety, Preventive Health, and At-Risk Population domain scores and the overall quality score in 2014. Urban ACOs performed better than ACOs in other geographic categories on the Patient/Caregiver Experience score in 2014. ACOs in all geographic categories improved their quality performance between 2014 and 2015.



Medicare Accountable Care Organizations: Beneficiary Assignment Update

Thomas Vaughn, PhD; A. Clinton MacKinney, MD, MS; Keith J. Mueller, PhD; Fred Ullrich, BA; Xi Zhu, PhD

This brief updates Brief No. 2014-3 and explains changes in the Centers for Medicare & Medicaid Services Accountable Care Organization (ACO) regulations issued in June 2015 pertaining to beneficiary assignment for Medicare Shared Savings Program ACOs. Changes to the shared savings methodology include prospective assignment of beneficiaries to ACOs, a change intended to improve ACOs' ability to assess and manage financial risk. Changes made to beneficiary assignment methodology recognize that due to specific health challenges, some beneficiaries receive primary care services from specialty physicians. In addition, services provided by FQHC and RHC professionals are included in the assignment determination. The changes are intended to increase the likelihood that beneficiaries are assigned to the physician and ACO. Understanding the assignment process enables providers to focus improved care management on patient experiences (including expenditures) used in the shared savings calculations.



About the RUPRI Center for Rural Health Policy Analysis

The RUPRI Center for Rural Health Policy Analysis conducts original research in the topical areas of access to health care services, Medicare policies, development of rural delivery systems (including effects of national policy), and public health. The mission of the Center is to provide timely analysis to federal and state health policy makers, based on the best available research.

The research of the RUPRI Center has included studies of Medicare managed care (currently Medicare Advantage plan enrollment), the Medicare prescription drug program, characteristics of the uninsured population in rural areas, classification of rural areas as unlikely to generate financial support for health care providers, and patterns of admission to hospitals for conditions treatable in an outpatient environment. Specific objectives for the Center's work include: conducting original research and independent policy analysis that provides policy makers and others with a more complete understanding of the implications of health policy initiatives, and disseminating policy analysis that assures policy makers will consider the needs of rural health care delivery systems in the design and implementation of health policy.



Research Projects

STUDIES FOCUSED ON RURAL HEALTH POLICY

Rural Health Research Center - Cooperative Agreement Program

US Department of Health & Human Services, Health Resources & Services Administration

Principal Investigator: Keith Mueller

Co-Investigators: A. Clinton MacKinney, Thomas Vaughn, Xi Zhu

Direct Funds: \$3,759,383 | Funding Period: 2010 - 2020

The RUPRI Center for Rural Health Policy Analysis at the University of Iowa will complete projects within this topic of concentration: the effects of payment and other policies on health care organizations and health plans in rural places. The Center will continue to use the framework of the continuum of care when assessing how essential services are sustained locally and linked to services across the entire continuum, whether those services are local, regional, or national. Additionally, the framework developed by the RUPRI Rural Health Panel ("Pursuing High Performance in Rural Health Care") will guide analysis of the impact of public policies on achieving a more desirable future for rural health services.

Rapid Response to Requests for Rural Data Analysis and Issue Specific Rural Research Studies

University of North Carolina at Chapel Hill/US Department of Health & Human Services, Health Resources & Services Administration

Principal Investigator: Keith Mueller

Co-Investigator: A. Clinton MacKinney

Direct Funds: \$832,419 | Funding Period: 2010 - 2017

The RUPRI Center will continue to update its database of Medicare Accountable Care Organizations (ACOs) as they are approved and as some withdraw from the program. First, we will update a Policy Brief published by the RUPRI Center in July 2013 reporting on the number of ACOs that included rural sites and a national map of their locations. That product is accompanied by state specific maps on the RUPRI Center web site. Second, we will produce a Policy Brief summarizing the characteristics of ACOs with rural presence, as gleaned from the Centers for Medicare and Medicaid Services data on metrics and characteristics.

Rural Health Value Program

US Department of Health & Human Services, Health Resources & Services Administration

Principal Investigator: Keith Mueller

Co-Investigators: A. Clinton MacKinney, Thomas Vaughn, Marcia Ward, Xi Zhu

Direct Funds: \$2,512,548 | Funding Period: 2012 - 2018

The purpose of the Rural Health Value Program (RHVP) continuation is to inform key stakeholders (including federal and state agencies and policy staff, healthcare organizations, public and private payers, and rural healthcare providers) regarding the impacts and implications of changes currently underway in healthcare finance and delivery. Equally important, the RHVP will guide and accelerate appropriate rural-centric adaptation to, and leadership in, healthcare finance and delivery changes by providing resources and technical assistance to rural providers and community stakeholders.

Supporting the Policy Advisory Activities of the Health Panel, Rural Policy Research

The Leona M. and Harry B. Helmsley Charitable Trust

Principal Investigator: Keith Mueller

Co-Investigator: A. Clinton MacKinney

Direct Funds: \$472,885 | Funding Period: 2012 - 2016

This funding supports the work of the RUPRI Health Panel whose aim is to spur public dialogue and help policymakers understand the rural impacts of public policies and programs.

Kaskie Awarded Health and Aging Policy Fellowship



Brian Kaskie was appointed as an American Political Science Association Congressional Fellow, focusing on health and aging policy, in October 2016.

The year-long fellowship offers Kaskie unparalleled opportunity to learn about federal health policy-making and build on his scholarship concerning the intersection between public policies and older Americans.

He serves Senator Susan Collins (Maine) on the Majority Staff of the US Senate Special Committee on Aging. The Special Committee on Aging has studied issues relevant to older Americans, such as Medicare, Social Security, and the Older Americans Act, since 1961. Thus, it has become the Congressional focal point for discussion and debate on matters important to the welfare of seniors.

As a fellow, Kaskie recently provided support to the Congressional hearing on Alzheimer's disease and related dementias.

"The fellowship cohort is quite impressive," said Kaskie. "The group includes tenured professors, executives from large healthcare clinics, pharmaceutical scientists, and corporate counsels. I am honored to serve with them and contribute to the policy-making process."

This fellowship is funded by The Atlantic Philanthropies.

Frontier Community Health Integration Project Technical Assistance, Tracking, and Analysis

Montana Health Research and Education Foundation/ US Department of Health & Human Services, Health Resources & Services Administration

Principal Investigator: Keith Mueller

Co-Investigators: A. Clinton MacKinney, Marcia Ward

Direct Funds: \$144,861 | Funding Period: 2014 - 2017

The Montana Health Education and Research Foundation, in partnership with the Rural Policy Research Institute (RUPRI), proposed to work with the Federal Office of Rural Health Policy (FORHP) to develop appropriate and attainable evaluative structures to complement analysis conducted by the Centers for Medicare and Medicaid Services and to support inclusion of a rural, patient-centered perspective in the national policy discussion.

Rural Policy Analysis Program

US Department of Health & Human Services, Health Resources & Services Administration

Principal Investigator: Charles Fluharty

Direct Funds: \$636,167 | Funding Period: 2014 - 2017

This Cooperative Agreement supports the work of the RUPRI Rural Health Panel and human services support to FORHP.

Health and Aging Policy Fellowship

The Atlantic Philanthropies

Principal Investigator: Brian Kaskie

Direct Funds: \$100,000 | Funding Period: 2016 - 2017

This fellowship allows participants to serve the US Senate Special Committee on Aging in the study of relevant issues.

STUDIES OF HEALTH CARE DELIVERY AND USE

Evaluation of TeamSTEPPS Implementation for Community Hospital Patient Safety

US Department of Health & Human Services, Agency for Healthcare Research & Quality

Principal Investigator: Marcia Ward

Co-Investigators: Jill Scott-Cawiezell, Greg Stewart, Thomas Vaughn, Gideon Zamba, Xi Zhu

Direct Funds: \$1,688,098 | Funding Period: 2010 - 2016

This study is designed to retrospectively and prospectively evaluate the elements of the TeamSTEPPS approach including organizational readiness, culture, training effectiveness, implementation strategies and fidelity, staff behaviors, burden/cost, and outcomes in community hospitals to identify the elements that are most important for success.

Understanding Racial and Geographic Disparities in Hospital Observation Care

US Department of Health & Human Services, National Institutes of Health

Principal Investigator: Brad Wright

Co-Investigator: Padmaja Ayyagari

Direct Funds: \$155,206 | Funding Period: 2014 - 2016

The overall objective of this longitudinal, claims-based study is to understand the causes of racial and geographic disparities in the use of observation care among Medicare fee-for-service beneficiaries and the implications of these disparities for patient-centered outcomes.

Mercy DSM

Mercy Accountable Care Organization LLC/ US, Department of Health & Human Services, Centers for Medicare & Medicaid Services

Principal Investigator: Keith Mueller

Co-Investigator: Xi Zhu

Direct Funds: \$109,836 | Funding Period: 2015 - 2016

This project will obtain, process, and analyze claims data for Mercy DSM.

Planning and Evaluation Core of Great Plains Center for Agricultural Health

US Department of Health & Human Services, Centers for Disease Control & Prevention

Principal Investigator: Kanika Arora

Direct Funds: \$99,365 | Funding Period: 2016 - 2021

The GPCAH evaluation plan has three key goals: 1) demonstrate the link between GPCAH activities and the expected short-, medium-, and long-term outcomes; 2) describe a structured method for assessing the quality, effectiveness, and impact of GPCAH activities; 3) describe the process for providing feedback to GPCAH management, investigators, and advisory committees to assist with continuous improvement efforts and planning.

Program Evaluation of AHA's STEMI Program in Minnesota

American Heart Association, The Leona M. and Harry B. Helmsley Charitable Trust

Principal Investigator: Marcia Ward

Co-Investigator: A. Clinton MacKinney, Kimberly Merchant

Direct Funds: \$154,544 | Funding Period: 2013 - 2016

This project conducts qualitative program evaluation of the implementation of American Heart Association's Mission: Lifeline, which is a national, community-based initiative, in rural Minnesota. Its goals are to improve quality of care and outcomes in heart attack patients and improve healthcare system readiness and response. In particular, this initiative aims to increase the number of patients with timely access to reperfusion by addressing the continuum of care for ST-segment-elevation myocardial infarction (STEMI).

Project ARCH Evaluation for the VA Rural Health Resource Center – Central Region

US Department of Veterans Affairs

Principal Investigator: Keith Mueller

Co-Investigators: A. Clint MacKinney, Jocelyn Richgels, Dan Shane, Fred Ullrich, Thomas Vaughn, Marcia Ward, Paula Weigel, Xi Zhu

Direct Funds: \$699,994 | Funding Period: 2015 - 2017

This study will provide research for the Iowa City VA Health Care System: VA Rural Health Resource Center.

Study: Medicaid Health Home Reduces Costs and Reliance on Emergency Care



Participants in an Iowa Medicaid program designed to provide better coordinated care to patients with multiple chronic illnesses have reduced health care costs and fewer emergency department visits, according to a new University of Iowa study. The research, conducted by Dan Shane, assistant professor of health management and policy in the UI College of Public Health, in collaboration with researchers at the UI Public Policy Center, examined more than 5,800 Iowa Medicaid members enrolled in the state's Medicaid Health Home (MHH).

The program, launched in July 2012, provides enhanced care coordination and services for Medicaid members with multiple chronic conditions. The MHH provides extra payments to health care providers for the enhanced care, in part due to federal funding from the Patient Protection and Affordable Care Act.

According to the study, which reviewed three years of health claims data between January 2011 and December 2013, participation in the Iowa MHH reduced spending by approximately \$132 per member per month, or nearly \$1,600 annually. This represents a 15% cost savings for MHH members compared with traditional Iowa Medicaid members. The researchers also found increased cost savings the longer a member was in the MHH program: each additional month of enrollment resulted in \$10.70 less in total monthly costs. In addition, members were less likely to visit the emergency department compared with traditional Medicaid recipients and emergency department spending was lower for MHH members.

"All of the evidence we evaluated, including surveys of members and input from providers, pointed to the benefits of improved care coordination in terms of reduced emergency department usage and lower overall costs," said Shane.

Beyond cost savings, surveys of MHH members and providers indicated improved satisfaction with the health care services. Compared with the period before enrollment in the MHH, members reported increased access to care and enhanced communication with providers. Members also indicated that unmet need declined in service areas such as after-hours help, urgent care, and prescriptions.

"We could be seeing the best case in terms of positive impact among the early members and providers," cautioned Shane. "Whether additional members and providers show similar results is something we'll be watching for."

Other researchers on the UI study team include Phuong Nguyen-Hoang from the UI School of Urban and Regional Planning and the UI Public Policy Center; Suzanne Bentler and Elizabeth Momany of the UI Public Policy Center; and Peter Damiano, Director, UI Public Policy Center and the UI Department of Preventive and Community Dentistry.

This study appeared in the August 2016 issue of *Medical Care*.

Pre-Training Intervention for Expedited TeamSTEPPS Implementation in Critical Access Hospitals

US Department of Health & Human Services, Agency for Healthcare Research & Quality

Principal Investigator: Xi Zhu

Co-Investigator: Thomas Vaughn, Marcia Ward

Direct Funds: \$64,899 | Funding Period: 2015 - 2018

The objective of this study is to develop a pre-training intervention specifically designed to assist Critical Access Hospitals (CAHs) to prepare for TeamSTEPPS. We will pilot test the intervention in four CAHs and prospectively examine how the intervention influences the process of implementing TeamSTEPPS in CAHs.

STUDIES ACROSS THE LIFESPAN

Genetic Instrumental Variable Studies of Maternal Risk Behaviors for Oral Clefts

US Department of Health & Human Services, National Institutes of Health

Principal Investigator: George Wehby

Co-Investigators: Lina Moreno Uribe, Paul Romitti

Direct Funds: \$1,916,503 | Funding Period: 2010 - 2017

The objective of this study is to estimate the effects of maternal risk behaviors during pregnancy including smoking, obesity, alcohol, and caffeine use on cleft lip/palate risks using a genetic instrumental variable (IV) model that accounts for unobserved confounders.

Gestational Age, Metabolic Markers, and Academic Achievement

Bill and Melinda Gates Foundation

Principal Investigator: George Wehby

Direct Funds: \$100,000 | Funding Period: 2014 - 2017

This study evaluates differences in academic achievement by gestational age and metabolic markers and develops a model to predict gestational age based on metabolic markers using population-level data from Iowa.

Insurance Coverage Policies and Outcomes of Children with Oral Clefts

US Department of Health & Human Services, National Institutes of Health

Principal Investigator: George Wehby

Direct Funds: \$251,465 | Funding Period: 2016 - 2018

This study will assess how the generosity of state laws mandating coverage of services needed to treat oral clefts and their complications in private insurance plans and Medicaid programs matters in utilization of care. The study will examine the effects of specific policies that are highly relevant to the healthcare needs of children with oral clefts on use of specific services that are likely to be impacted by these policies capturing both timeliness and frequency of use.

National Expansion of Dental Insurance Among Young Adults: A Natural Experiment

US Department of Health & Human Services, National Institutes of Health

Principal Investigator: Dan Shane

Direct Funds: \$150,000 | Funding Period: 2016 - 2018

This study will identify the impacts of private dental coverage utilization of preventive and curative dental services as well as dental spending.

Identifying and Understanding How to Address the Gaps in Care Experienced by Adolescent and Young Adult Cancer Patients at the University of Iowa Hospitals and Clinics

Iowa Cancer Consortium

Principal Investigator: Erin Mobley

Direct Funds: \$4,184 | Funding Period: 2016 - 2017

To counteract stagnant survival rates for adolescent and young adult (AYA) cancer patients, this project will analyze data from surveys and a series of four focus groups with patients treated at UIHC to identify gaps in care and provide patient-centered suggestions for program development.

Cognitive Training and Practice Effects in MCI

University of Utah/US Department of Health & Human Services, National Institutes of Health

Principal Investigator: Fredric Wolinsky

Direct Funds: \$56,765 | Funding Period: 2014 - 2017

Dr. Wolinsky will have a primary role in all aspects of planning, design, management, execution, and oversight of this randomized controlled trial. He will also be involved as a co-author for production of all manuscripts.

Researchers Look at Effects of Higher Minimum Wage on Infant Birthweight



A new study suggests that increasing the minimum wage would lead to an increase in birthweight among babies born to women with low education.

Results showed that increasing the minimum wage by \$1 led to a birth weight increase of 11 grams among babies born to women with low education. The increase corresponded to a reduction of 2 percent in low birth weight. Their estimates suggest that raising the federal minimum wage to \$15 would increase birth weight by 85 grams. These estimates indicate meaningful changes in average birth weight. They also found evidence of an increase in prenatal care use and decline in prenatal smoking as some potential channels.

The research team, which included George Wehby; Dhaval Dave, professor of economics at Bentley University; and Robert Kaestner, professor of economics at the University of Illinois at Chicago, analyzed data on virtually every US birth between 1989 and 2013.

This study was published July 2016 by The National Bureau of Economic Research in the working paper series.

Project to Identify Gaps in Care that Affect Quality of Life for Young Cancer Patients



Doctoral student Erin Mobley, MPH, is working to identify and help address gaps in care experienced by adolescent and young adult (AYA) cancer patients at the University of Iowa Stead Family Children's Hospital and the Holden Comprehensive Cancer Center at the University of Iowa Hospitals and Clinics.

Patients between the ages of 13 and 31 experience unique needs and challenges during their cancer treatment as well as after treatment has been completed. Planning for the AYA Program began about a year ago to address those needs. It is in the process of gathering information from patients who have been treated at the Stead Family Children's Hospital and the Holden Comprehensive Cancer Center.

This seven-month project analyzes information collected directly from AYA patients to inform program leadership about gaps in current care and ways to help determine subsequent programming and interventions to improve care for AYA patients. The analyses include qualitative data from focus groups and quantitative data from surveys administered to patients. By using a mixed-methods approach to study the needs of this population, the project team hopes to provide significant insight toward understanding what can be done to enhance quality of life for this group of cancer patients locally, as well as AYA patients elsewhere in Iowa and nationally.

Funding for this project was provided by the Iowa Cancer Consortium.

STUDIES FOCUSED ON TELEHEALTH

Avera EB TNGP Evaluation

Avera Health Central Office

Principal Investigator: Marcia Ward

Co-Investigators: Nicholas Mohr, Dan Shane

Director Funds: \$192,486 | Funding Period 2016 – 2017

This project includes the Rural Telehealth Research Center as a research partner with Avera eCare to facilitate several research projects related to Avera's tele-emergency services.

Telehealth Focused Rural Health Research Center Cooperative Agreement

The US Department of Health & Human Services, Health Resources & Services Administration

Principal Investigator: Marcia Ward

Co-Investigators: Elizabeth Chrischilles, A. Clinton MacKinney, Nicholas Mohr, Keith Mueller, Dan Shane

Direct Funds: \$1,155,253 | Funding Period: 2015 - 2019

The goal of this project is to conduct and disseminate research on rural telehealth that contributes to building a high performance health system in rural America.

STUDIES FOCUSED ON COMMUNITIES AND WORKFORCE

Building a Local Culture of Health: The Roles of Rural Communities and Hospitals

Robert Wood Johnson Foundation

Principal Investigator: Xi Zhu

Co-Investigators: Keith Mueller, Thomas Vaughn, Marcia Ward

Direct Funds: \$358,969 | Funding Period: 2015 - 2017

The Rural Policy Research Institute (RUPRI) Center for Rural Health Policy Analysis will lead a special effort to research community and health-system characteristics that contribute to building and sustaining a local Culture of Health in rural communities. We will explore the roles of rural communities and hospitals and the strategies they may use to lead the collaboration to create and sustain a local Culture of Health.

IDPH Health Workforce Program Analysis

Iowa Department of Public Health/ US Department of Health & Human Services, Centers for Disease Control & Prevention

Principal Investigator: Keith Mueller

Director Funds: \$80,130 | Funding Period 2015 – 2016

The Iowa Department of Public Health wants to employ strategies that attract and develop a quality workforce while focusing on the right number of health professionals in the right locations, with the right skills and attitudes, ensuring a strong, effective workforce that keeps Iowans healthy within the limited state resources available. This contract seeks to evaluate the health workforce development programs under the purview of the Bureau of Oral and Health Delivery Systems to determine the extent to which the current programs are impacting and making progress toward addressing the health workforce needs. The evaluation also identifies barriers to program success, gaps in the scope and availability of the programs and associated health workforce data, and makes recommendations to improve outcomes and address barriers and gaps.

Study Measures Agricultural Center Projects and Overall Impact



In its most-recent successful request for renewal, the Great Plains Center for Agricultural Health (GPCAH) in the UI College of Public Health expanded its evaluation component and tapped Kanika Arora to lead it.

GPCAH addresses health and safety needs of agricultural workers in nine Midwestern states. Three major projects are underway. Arora will evaluate the quality, effectiveness, and impact of the projects as well as the overall center.

Arora describes the process as measuring inputs, activities, and outputs, and then evaluating the short-, intermediate- and long-term outcomes. Inputs come from everyone involved, including faculty, staff, and advisory committees. Activities are the research projects, outreach work, and identifying innovations. Outputs include training, publications, improved technology, and expanded awareness.

“We are looking forward to systemizing this effort,” said Arora. “The indicators are both qualitative and quantitative. We will take advocacy, social media, even the website and put them into a measurable process.”

This project is funded by US Department of Health & Human Services, Centers for Disease Control & Prevention.





RTRC

Rural Telehealth RESEARCH CENTER

NATIONAL RESEARCH CENTER ADVANCING TELEHEALTH

The Rural Telehealth Research Center (RTRC) is focused on building the evidence base for telehealth, especially in rural settings. More specifically, RTRC is charged with advancing publicly available, high-quality, impartial, clinically informed, and policy-relevant research. Rigorous research is needed to identify telehealth models that are affordable and sustainable, enhance rural access, and maintain and improve quality. The goal of RTRC is to conduct and disseminate research on rural telehealth that contributes to building a high-performance system in rural America. RTRC is funded by the Federal Office of Rural Health Policy (FORHP) in the Health Resources & Services Administration (HRSA). RTRC is one of eight Rural Health Research Centers participating in cooperative agreements with FORHP.



Marcia Ward,
RTRC Director

Teams from University of Iowa, University of Southern Maine, and University of North Carolina completed three projects in 2016 with one being carried over to the second year of funding. Completed were: 1) design a study for collection of uniform measures by the Evidence-Based Telehealth Network Grant Program grantees; 2) launch the study; and 3) the impact of emergency medicine on timeliness, process of care, and clinical outcomes in North Dakota trauma care.



Telemedicine Penetration and Consultation among Rural Trauma Patients in Critical Access Hospital Emergency Departments in North Dakota

Nicholas M. Mohr, MD, MS; Karisa K. Harland, PhD, MPH; Elizabeth Chrischilles, PhD; Julie Donner, MSSL; Amanda Bell, MHA; Dan M. Shane, PhD; Marcia M. Ward, PhD

This research and policy brief describes the penetration of Emergency Department (ED)-based telemedicine in North Dakota Critical Access Hospitals (CAHs), and describes hospital and geographical factors that contribute to increased telemedicine utilization in ED trauma. Trauma is the leading cause of death for Americans aged 1 to 44 years and is associated with significant morbidity and mortality. Rural trauma patients in particular have disproportionately high injury mortality rates, but only about half of Americans living in rural states live within 30 minutes of an emergency

department (ED). To help address the needs of rural trauma patients, ED-based telemedicine services are increasingly being used. For rural residents, use of ED telemedicine offers one strategy to improve access to experienced specialists, timely care, and appropriate treatment.

Key findings from this research were:

- From 2008 to 2014, more than 35 percent (n = 3,309) of trauma patients treated in a North Dakota critical access hospital presented to a facility with telemedicine capabilities.
- Among patients presenting to a telemedicine-enabled emergency department, 361 (10.9 percent) were treated with telemedicine consultation.
- After telemedicine was implemented in a critical access hospital, utilization remained constant over time.
- Hospital-level and geographic factors do not explain differences in telemedicine penetration or use for trauma patients.

The following four projects are underway for 2016-2017.

Collecting and analyzing uniform measures from the Evidence-Based Tele-emergency Network Grant Program grantees

Lead researcher: Marcia M. Ward, PhD

FORHP is currently funding six grantees through the Evidence-Based Tele-emergency Network Grant Program (EB TNGP) to implement and evaluate tele-emergency services in rural areas. The purpose of this project is to routinely collect and analyze data on a uniform set of measures reported by EB TNGP grantees to help establish the evidence base for tele-emergency.

Provide guidance on measures for the School-Based Telehealth Network Grant Program evaluation

Lead researcher: Marcia M. Ward, PhD

RTRC will work cooperatively with FORHP to provide guidance on a set of measures that could be used for a cross-grantee evaluation of the SB TNGP. A secondary goal is to identify lessons learned from this effort that could be useful in designing future TNGP cooperative agreements.

Telestroke adoption, cost, and quality in hospitals in North Carolina

Lead researcher: Christopher M. Shea, PhD, MA, MFA

This project will examine hospitals in North Carolina to: 1) identify all hospitals serving as a telestroke originating site and summarize their structure, market, and community characteristics; 2) compare these structural, market, and community characteristics to hospitals that do not provide telestroke; and 3) within a sample of telestroke originating sites, examine the influence of telestroke program characteristics and process measures on quality measures and costs, using a combination of secondary and primary data.

Use of telehealth services among rural Medicaid enrollees: A baseline inventory

Lead researcher: Andrew F. Coburn, PhD

This project uses data from the Medicaid Analytic Extract (MAX) for 2011 to create a 50-state, baseline inventory of telehealth services provided to Medicaid enrollees in rural and urban settings. The project will provide important information on the feasibility of using MAX data to study the effects of Medicaid telehealth policies on rural telehealth use and on the accessibility and quality of care delivered to rural Medicaid populations.

Partners

RTRC brings together the expertise of researchers from three major universities, all with experience in rural health care services and environments.



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Publications by CHPR Associates

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Wakefield Award

The Bonnie J. and Douglas S. Wakefield Award is presented to recognize HMP Doctoral students who best exemplify the mission of the HMP PhD Program in terms of excellence or promise of excellence in health services and policy research. The winners for 2016 are Nabil Natafqi and Matthew Nattinger. These two students were especially commended for their progress on research and publications.

Congratulations, Nabil and Matt!



Nabil's dissertation examines quality of care and effectiveness of telehealth interventions in Critical Access Hospitals. His research interests include quality of care and patient safety, performance measurement and reporting, telehealth effectiveness and evaluation, health services outcomes and evaluation. He had 17 peer-reviewed publications through 2016.

Matt's research areas are Medicaid policy, long-term services and supports, state health policy environments, health policy diffusion, Medicaid managed care, accountable care organizations, delivery system reform, and health insurance marketplaces/exchanges. Matt has been working at the US Government Accountability Office in Chicago since his August 2016 graduation. He had eight peer-reviewed articles published through 2016.



Presentations by CHPR Associates

Arora K. "Examining the Duration between IRB Approval and First Accrual." American Evaluation Association, Atlanta GA. (October 2016)

Arora K. "Recruiting Special Populations in Clinical Research: STAR Registry at University of Iowa." Association for Clinical and Translational Science, Washington DC. (May 2016)

Arora K. "The Effect of Paid Family Leave on Nursing Home Use - The California Experience." Association for Public Policy Analysis and Management, Washington DC. (November 2016)

Atchison C. "The L-SIP Update: Stories from Recent L-SIP Participants." Association of Public Health Laboratories Annual Meeting, Albuquerque, NM. (June 2016)

Ayyagari P. "Medicaid Coverage and Health Outcomes: Evidence from Tennessee." 6th Biennial Conference of the American Society of Health Economists, Philadelphia, PA. (June 2016)

Ayyagari P. "The Role of Medical Expenditure Risk in Portfolio Allocation Decisions." American Economic Association Annual Meeting, San Francisco, CA. (January 2016)

Ayyagari P. "The Role of Medical Expenditure Risk in Portfolio Allocation Decisions." Midwest Economics Association Conference, Evanston, IL. (March 2016)

Kaskie B. "Activation of Employed Informal Elder Caregivers." Gerontological Society of America, New Orleans, LA. (November 2016)

Kaskie B. "Qualitative Aspects of Elderly Waivers and Their Outcomes." AcademyHealth, Boston, MA. (June 2016)

MacKinney AC. "Fee-for-Service and Cost-based Reimbursement Pro Forma." TASC 90 Webinar Series, National Rural Health Resource Center. (June 2016)

MacKinney AC. "MACRA - The Rural Impact." Rural Health Value, Saint Joseph, MN. (July 2016)

MacKinney AC. "MACRA Discussion." IRHA Rural Conference, Iowa Rural Health Association, Des Moines, IA. (December 2016)

MacKinney AC. "New Payment, New Care, Almost There." Colorado Rural Health Conference, Colorado Hospital Association, Beavercreek, CO. (May 2016)

MacKinney AC. "New Payment, New Care, Almost There." Dakota Rural and Public Health Conference, University of North Dakota, Grand Forks, ND. (May 2016)

MacKinney AC. “New Payment, New Care... It’s Time to Get Ready!” Central Peninsula Hospital Director’s Retreat, Central Peninsula Hospital, Homer, AK. (October 2016)

MacKinney AC. “New Payment, New Care... We’re Getting There.” Heartland Health Alliance Conference, Heartland Health Alliance, Lincoln, NE. (August 2016)

MacKinney AC. “New Payment, New Care... We’re Getting There.” Nebraska Rural Health Conference, Nebraska Rural Health Association, Kearney, NE. (September 2016)

MacKinney AC. “New Payment, New Care... We’re Getting There.” NW Rural Health Conference, University of Washington, Spokane, WA. (March 2016)

MacKinney AC. “Strategic Action Planning and the FFS/CBR Pro Forma.” Small Rural Hospital Transformation Project, National Rural Health Resource Center. (February 2016)

MacKinney AC. “Value-Based Care Strategic Planning Tool.” Small Rural Hospital Transformation Project, National Rural Health Resource Center. (February 2016)

MacKinney AC. “Value-Based Payment - Coming to Rural America.” Fall Providers and Partners Conference, PrimeWest Health, Alexandria, MN. (November 2016)

MacKinney AC. “Value-Based Payment - Coming to Rural America.” Altru Health Provider’s Conference, Altru Health, Grand Forks, ND. (October 2016)

MacKinney AC. “Value-Based Payment - Coming to Rural America.” eHealth and ND HIMSS, University of North Dakota, Bismarck, ND. (November 2016)

MacKinney C. “Value-Based Payment - Coming to Rural America.” Heartland Health Alliance, Lincoln, NE. (August 2016)

Mueller K. “Advancing Policy Through Research: Program Evaluation and Outcomes in Rural Telehealth.” 2016 South Central Telehealth Forum, Nashville, TN. (August 2016)

Mueller K. “Continuing the Journey to Oz: Finance and Organization Change as Means to an End.” 14th Annual Western Region Flex Conference, Tucson, AZ. (June 2016)

Mueller K. “Delivery System Reform Facilitates Quality Improvement.” Nebraska Critical Access Hospitals Conference on Quality, Kearney, NE. (October 2016)

Mueller K. “Forces Shaping the Future of Critical Access Hospitals: A Journey to Oz.” Medicare Rural Hospital Flexibility Program, Columbia, MO. (July 2016)

Mueller K. “Health Workforce Development Programs in Iowa.” Iowa Rural Health Symposium, Harlan, IA. (May 2016)

Mueller K. “Health Workforce Development Programs in Iowa.” Iowa Rural Health Symposium, Ottumwa, IA. (April 2016)

Mueller K. “How the Changing Marketplace Creates Challenges and Opportunities in Rural Health.” SORH Regional Partnership Meeting - Region A, Portsmouth, NH. (June 2016)

Mueller K. “How the Changing Marketplace Creates Challenges and Opportunities in Rural Health.” SORH Regional Partnership Meeting - Region E, Dickinson, ND. (August 2016)

Mueller K. “Pathways to Success in a New World of Healthcare Finance.” 31st Annual Rural Health Care Symposium, California Hospital Association, San Diego, CA. (April 2016)

Mueller K. “Rural Health Policy.” Center for Rural Health and Primary Care Advisory Meeting, Iowa City, IA. (March 2016)

Mueller K. “Rural Healthcare Delivery Focused on Social Determinants of Health.” National Advisory Committee on Rural Health and Human Services, Albuquerque, NM. (September 2016)

Mueller K. “The Continuing Spread of ACO Presence in Rural Places.” 39th Annual National Rural Health Association Meeting, Minneapolis, MN. (May 2016)

Mueller K. “The Future of Critical Access Hospitals and Rural Health Care.” 71st Annual Meeting of the Midwestern Legislative Conference (The Council of State Governments), Milwaukee, WI. (July 2016)

Mueller K. “Venturing Into a Brave New World of Healthcare Finance.” Heartland Physician Alliance, Kirksville, MO. (March 2016)

Mueller K. “How the Changing Marketplace Creates Challenges and Opportunities in Rural Health.” Office of Management and Budget Conversation, Washington DC. (November 2016)

Mueller K. “Rural Health System Change Embedded in State Innovation Models.” TASC 90 Webinar. (November 2016)

Natafgi N, Baloh J, Weigel P, Ullrich F, **Ward MM.** “Surgical Patient Safety Outcomes in Critical Access Hospitals (CAH).” Research Week, University of Iowa College of Public Health, Iowa City, IA. (April 2016)

Shane DM, Zimmer DM. “Is the ACA Bringing the Family Back Together (for Tax Purposes)? Investigating the Dependent Coverage Mandate Effect on Dependent Tax Exemptions.” 6th Biennial Conference of the American Society of Health Economists, Philadelphia, PA. (June 2016)

Tu S, **Zhu X,** Yao N. “Social Network Analysis: Applications for Patient Care.” Department of Internal Medicine, Virginia Commonwealth University, Richmond, VA. (February 2016)

Ward M. “Building a Broad-based Evidence Base for Tele-emergency Care: Efforts to Identify a Standardized Set of Outcome Measures.” NRHA Rural Quality and Clinical Conference, National Rural Health Association, Oakland, CA. (July 2016)

Ward M. “Innovating for Quality in Critical Access Hospitals.” 4th Annual Quality Improvement and Patient Safety Symposium, University of Iowa Health Care, Iowa City, IA. (April 2016)

Ward M. “Program, Qualitative, and Mixed-Methods Evaluation.” Executive Leadership Academy, University of Iowa Hospitals and Clinics, Coralville, IA. (December 2016)

Wehby G. “Genetic Instrumental Variables (Mendelian Randomization): Using Genes to Identify Causal Effects.” EUROcleftNet Research Conference, University of Dundee, Dundee, Scotland. (June 2016)

Wehby G. “Genetic Risks for Chronic Conditions: Implications for Long-Term Wellbeing, Medicare Expenditures, and Heterogeneity in Policy Effects.” Department of Health Behavior and Policy Seminar Series, Virginia Commonwealth University, Richmond, VA. (April 2016)

Wright B. “Best Practices in the New Age of Mentorship.” AcademyHealth Webinar. (December 2016)

Yao N, **Zhu X**, Mishra V, Phillips A, Dow A, Tu S. “Social Networks in Electronic Health Records.” Society of Hospital Medicine Annual Meeting, San Diego, CA. (March 2016)

Zhu X, Yao N, Phillips A, Mishra V, Dow A, Tu S. “Identifying Health Care Teams Using Electronic Health Records Access Data and Social Network Analysis.” Society of Hospital Medicine Annual Meeting, San Diego, CA. (March 2016)

Zhu X, Yao N, Phillips A, Mishra V, Dow A, Tu S. “Identifying Patient-Centered Care Teams Using Electronic Health Records Access Data and Social Network Analysis.” AcademyHealth Annual Research Meeting, Boston MA. (June 2016)



Forthcoming Publications by CHPR Associates

Ayyagari P, Frisvold D. The impact of social security income on cognitive function at older ages. *American Journal of Health Economics*.

Ayyagari P, He D. The role of medical expenditure risk in portfolio allocation decisions. *Health Economics*.

Baloh J, Zhu X, **Ward MM**. Types of internal facilitation activities in hospitals implementing evidence-based interventions. *Health Care Management Review*.

Gallagher E, Collett B, Barron S, Romitti P, Ansley T, **Wehby GL**. Laterality of oral clefts and academic achievement. *Pediatrics*.

Harris Y, Gilman B, **Ward MM**, Ladinsky J, Crowley J, Warren C, Caplan C. Building the evidence base for tele-emergency care: Efforts to identify a standardized set of outcome measures. *Telemedicine and e-Health*.

Kaskie B. Is the academy aging in place? How holistic modifications to institutions of higher education can support successful aging. *The Gerontologist*.

Kaskie B, **Ayyagari P**, Milavetz G, **Shane D**, **Arora K**. The increasing use of cannabis among older Americans: A public health crisis or viable policy alternative? *The Gerontologist*.

Kaskie B, Walker M, Andersson M. Efforts to address the aging academic workforce: Assessing progress through the Three Stage Model of Institutional Change. *Innovations in Higher Education*.

Mohr N, Harland K, Chrischilles E, **Shane D**, Bell A, **Ward MM**. Emergency department telemedicine is used for more severely injured rural trauma patients, but does not decrease transfer: A cohort study. *Academy of Emergency Medicine*.

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Mohr N, Stoltze A, Ahmed A, Kiscaden E, **Shane DM**. Using continuous quantitative capnography for emergency department procedural sedation: A systematic review and cost-effectiveness analysis. *Internal and Emergency Medicine*.

Nattinger M, **Kaskie B**. Determinants of the rigor of state protection policies for persons with dementia in assisted living. *Journal of Aging and Social Policy*.

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Weaver CA, Miller SF, da Fontoura CSG, **Wehby GL**, Amendt BA, Holton NE, Allareddy V, Southard TE, Moreno Uribe LM. Candidate gene analyses of 3D dento-alveolar phenotypes in individuals with malocclusion. *American Journal of Orthodontics & Dentofacial Orthopedics*.

Wehby G, Shane D, Joshi A, Momany E, Chi D, Kuthy R, Damiano P. The effects of distance to dentists and dentist supply on children's use of dental care. *Health Services Research*.

Wright B, O'Shea A, Glasgow J, **Ayyagari P**, Vaughan-Sarrazin M. Chest pain patients at Veterans Hospitals are increasingly more likely to be observed than admitted for short stays. *Inquiry*.

Publications by PhD Students

Baloh J, Zhu X, Ward MM. Types of internal facilitation activities in hospitals implementing evidence-based interventions. *Health Care Management Review* (forthcoming).

Natafqi N, Baloh J, Weigel P, Ullrich F, Ward M. (2016) Surgical patient safety outcomes in Critical Access Hospitals: how do they compare? *Journal of Rural Health*, doi: 10.1111/jrh.12176. (Epub ahead of print).

Natafqi N, Nattinger M, Ugwi P, Ullrich F, Wolinsky F. (2016) The impact of the Affordable Care Act (ACA) on favorable risk selection and beneficiaries' health status in Medicare Advantage: A preliminary assessment. *BMC Health Services Research*, 16(1):404. doi: 10.1186/s12913-016-1663-4.

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