24
total research projects

$13,898,799
total direct funding by research in 2015

17
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 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 25 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 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 newly funded Rural Telehealth Research Center (RTRC) was established as a sub-unit of the Center for Health Policy and Research. RTRC is funded by the Federal Office of Rural Health Policy in HRSA.

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 2015 Annual Report!

In the following pages are listed faculty, staff, and students who received funding through Center projects in 2015, Friday Seminar Series presentations, research projects, publications and presentations by Center Affiliates, and Ph. D. 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

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 healthcare 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, patient safety and quality, rural healthcare delivery, healthcare utilization and outcomes, telehealth
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

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
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<tbody>
<tr>
<td>Abby Barker</td>
<td>Washington University, St. Louis</td>
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<tr>
<td>Knute Carter</td>
<td>Biostatistics, University of Iowa</td>
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<tr>
<td>Jill Cawiezell</td>
<td>College of Nursing, University of Iowa</td>
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<tr>
<td>Jon Christianson</td>
<td>University of Minnesota</td>
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<tr>
<td>Andy Coburn</td>
<td>University of Southern Maine</td>
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<tr>
<td>Donna Dorothy</td>
<td>Pediatrics, University of Iowa</td>
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<tr>
<td>Chance Finegan</td>
<td>Health Management and Policy</td>
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<tr>
<td>Jim Fitzpatrick</td>
<td>Mercy Medical Center, Sioux City</td>
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<tr>
<td>Michael Jones</td>
<td>Biostatistics, University of Iowa</td>
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<tr>
<td>Leah Kemper</td>
<td>Washington University, St. Louis</td>
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<tr>
<td>Teresa Kittridge</td>
<td>Health Management and Policy/RUPRI</td>
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<tr>
<td>Colleen Kummet</td>
<td>Biostatistics, University of Iowa</td>
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<tr>
<td>Rolv Lie</td>
<td>University of Bergen</td>
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<tr>
<td>Jennifer Lundblad</td>
<td>Stratis Health</td>
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<tr>
<td>Michelle Martin</td>
<td>Health Management and Policy</td>
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<tr>
<td>Timothy McBride</td>
<td>Washington University, St. Louis</td>
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<tr>
<td>Kimberly Merchant</td>
<td>Health Management and Policy</td>
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<tr>
<td>Vince Mor</td>
<td>Brown University</td>
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<tr>
<td>Lina Moreno Uribe</td>
<td>College of Dentistry, University of Iowa</td>
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<tr>
<td>Alan Morgan</td>
<td>National Rural Health Association</td>
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<tr>
<td>Ron Munger</td>
<td>Utah State University</td>
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<tr>
<td>Name</td>
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<tr>
<td>Sue Nardie</td>
<td>University of Nebraska Medical Center</td>
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<td>David Palm</td>
<td>University of Nebraska Medical Center</td>
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<tr>
<td>Jocelyn Richgels</td>
<td>Health Management and Policy/RUPRI</td>
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<tr>
<td>Chika Richter</td>
<td>College of Dentistry, University of Iowa</td>
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<tr>
<td>Paul Romitti</td>
<td>Epidemiology, University of Iowa</td>
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<tr>
<td>Kelli Ryckman</td>
<td>Epidemiology, University of Iowa</td>
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<td>Diane Schaeffer</td>
<td>Health Management and Policy</td>
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<tr>
<td>Shawn Sexton</td>
<td>Health Management and Policy/RUPRI</td>
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<td>Nuno Solano DeAlmeida</td>
<td>Health Management and Policy</td>
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<tr>
<td>Greg Stewart</td>
<td>Tippie College of Business, University of Iowa</td>
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<td>Fred Ullrich</td>
<td>Health Management and Policy</td>
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<td>Kelli Vellinga</td>
<td>Consultant</td>
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<td>Paula Weigel</td>
<td>Health Management and Policy</td>
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<td>Kevin Wellen</td>
<td>BKD, LLP</td>
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<td>Karla Weng</td>
<td>Stratis Health</td>
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<td>Tamara Wilde</td>
<td>Health Management and Policy/RUPRI</td>
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<tr>
<td>Kristi Yeggy</td>
<td>Health Management and Policy/RUPRI</td>
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<tr>
<td>Gideon Zamba</td>
<td>Biostatistics, University of Iowa</td>
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*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.*
## Center Graduate Research Assistants

<table>
<thead>
<tr>
<th>Jure Baloh</th>
<th>Camden Bay</th>
<th>Bryant Conkling</th>
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<tbody>
<tr>
<td>J. Alton Croker</td>
<td>Allison Davis</td>
<td>Isaac Hooley</td>
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<tr>
<td>Aaron Horsfield</td>
<td>Nicholas Howald</td>
<td>Clint Hugie</td>
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<tr>
<td>Steven Johnson</td>
<td>Erin Mobley</td>
<td>Matthew Nattinger</td>
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<tr>
<td>David Nelson</td>
<td>Kwame Nyarko</td>
<td>Swati Panchal</td>
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<tr>
<td>Anastasios Papachristoudis</td>
<td>Andrew Potter</td>
<td>Lindsey Reed</td>
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<tr>
<td>Abiodun Salako</td>
<td>Teresa Salaway</td>
<td>Katherine Swanic</td>
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<tr>
<td>Patience Ugwi</td>
<td>Ashlee Venema</td>
<td>Nicole Westergaard</td>
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*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

<table>
<thead>
<tr>
<th>Topic</th>
<th>Presenter(s)</th>
<th>Date</th>
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<tbody>
<tr>
<td>Exploring Variation in the Use and Duration of Observation Care</td>
<td>Wright, B.</td>
<td>January</td>
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<tr>
<td>Service Delivery Indicators: Measuring Quality of Health Services in Nigeria</td>
<td>Ugwi, P.</td>
<td>February</td>
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<tr>
<td>Systematic Review of Telemedicine Applications in Emergency Rooms</td>
<td>Natafgi, N., Ward, M.</td>
<td>February</td>
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<td>Navigating the IRB Review Process for Human Subjects Research</td>
<td>O’Berry, K.</td>
<td>February</td>
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<tr>
<td>Variation in Primary Care Practice Patterns by Rural-Urban Location</td>
<td>Weigel, P.</td>
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<tr>
<td>Is It Valid to Use Spousal Proxies for Older Adults in Health Surveys</td>
<td>Wolinsky, F.</td>
<td>March</td>
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<tr>
<td>Designing and Implementing the Rural Health System of the Future</td>
<td>Mueller, K.</td>
<td>April</td>
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<tr>
<td>Do Availability and Use of Informal Care Help Explain Trends in Older Adults’ Functional Limitations</td>
<td>Potter, A.</td>
<td>April</td>
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<td>Different Perceptions of Quality-Related Structures and Processes Among Groups of Hospital Managers – Which Differences Matter</td>
<td>Baloh, J.</td>
<td>April</td>
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<td>The Impact of ACA on Medicare Advantage Plan Enrollment and Member Health: Preliminary Results</td>
<td>Natafgi, N., Nattinger, M., Ugwi, P.</td>
<td>April</td>
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<tr>
<td>Mixed Methods Evaluation of Medical Home Performance</td>
<td>Lampman, M.</td>
<td>May</td>
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<td>Beyond Metrics? Utilizing ‘Soft Intelligence’ for Healthcare Quality and Safety</td>
<td>Martin, G.</td>
<td>May</td>
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<tr>
<td>Surgical Patient Safety Outcomes in Critical Access Hospitals: How Do They Compare?</td>
<td>Natafgi, N.</td>
<td>September</td>
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<td>Rural Bypass for Elective Surgical Procedures</td>
<td>Weigel, P.</td>
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<tr>
<td>Exploring the Effects of Medicare Part D on Depression</td>
<td>Shane, D.</td>
<td>October</td>
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<td>Ethics Schmethics</td>
<td>Vaughn, T.</td>
<td>October</td>
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<td>Delivery System Reform Comes to Rural Health</td>
<td>Mueller, K.</td>
<td>October</td>
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<tr>
<td>Facilitation Activities of Critical Access Hospitals During TeamSTEPPS Implementation</td>
<td>Baloh, J.</td>
<td>October</td>
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<tr>
<td>Observation Stays in the Veterans Health Administration</td>
<td>Wright, B.</td>
<td>November</td>
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<tr>
<td>Personal Care Services and Medicaid Expenditures</td>
<td>Arora, K.</td>
<td>November</td>
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<tr>
<td>Caregiving in an Aging Society: Older Adults’ Care Configurations and Unmet Care Needs</td>
<td>Potter, A.</td>
<td>December</td>
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</table>
Medicare Value-based Payment Reform: Priorities for Transforming 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
In January, 2015, the Department of Health and Human Services (HHS) announced new goals and timelines for moving Medicare reimbursement from fee-for-service to value-based payment. These payment changes are driving delivery system reforms by making health care organizations more accountable for patients’ health as well as population and community health. Payment and delivery system reform, however, is concentrated in urban centers, and Medicare rural payment policies that were designed to strengthen rural health providers and systems are now complicating payment and delivery system reform in rural areas. Therefore, this study provided five recommendations to facilitate rural inclusion in value-based payment and delivery system reform: organize rural health systems to create integrated care, build rural system capacity to support integrated care, facilitate rural participation in value-based payments, align Medicare payment and performance assessment policies with Medicaid and commercial payers, and develop rural appropriate payment systems and quality measures.

Hospital Views of Factors Affecting Telemedicine Use
Kimberly A. S. Merchant, MA; Marcia M. Ward, PhD; Keith J. Mueller, PhD
This brief determines type of telemedicine use by hospitals – providing services as a hub or receiving services as a spoke -- and then identifies factors from the hospitals’ perspective that affect use. Key informants at 36 hospitals were interviewed. Respondents reported a variety of start-up funding from federal, state, and foundation sources as initiating telemedicine use at their hospitals. They reported benefits, such as meeting hospital missions and improving patient access, as well as challenges, such as reimbursement procedures and clinician buy-in. They said licensing and credentialing policies were barriers to expansion. Yet both hub and spoke hospital respondents state considerable benefits for continued telemedicine use.

Characteristics of Rural Communities with a Sole Independently Owned Pharmacy
Matthew Nattinger, MS; Fred Ullrich, BA; Keith J. Mueller, PhD
In this policy brief, we characterize the population of rural communities with a single independently owned pharmacy. We find that more than 2.7 million people, more than 25 percent of whom live below the federal poverty level, reside in 663 rural communities with a sole independently owned pharmacy in 2014. For about 70 percent of these rural communities, the next closest pharmacy is more than 10 miles away.

Characteristics of Rural Accountable Care Organizations (ACOs) - A Survey of Medicare ACOs with Rural Presence
Abiodun Salako, MPH; Xi Zhu, PhD; A. Clinton MacKinney, MD, MS; Fred Ullrich, BA; Keith Mueller, PhD
In this policy brief, we present the findings of a survey of 27 rural ACOs focusing on characteristics important to their formation and operation. We find that a majority of responding ACOs were formed from pre-existing integrated delivery systems and had physician and hospital participants with prior risk-sharing and quality-based payment experience. In addition, physician groups played a leading role in the formation and management of the ACOs.
A Rural Taxonomy of Population and Health-Resource Characteristics
Xi Zhu, PhD; Keith J. Mueller, PhD; Thomas Vaughn, PhD; Fred Ullrich, BA
This policy brief reports the newly developed taxonomy of rural places based on relevant population and health-resource characteristics and discusses how this classification tool can be utilized by policy makers and rural communities. Using the most current data from multiple sources, we applied the cluster analysis to classify 10 distinct types of rural places based on characteristics related to both demand (population) and supply (health resources) sides of the health services market. In descending order, the most significant dimension in our classification was facility resources, followed by provider resources, economic resources, and age distribution. Each type of rural place was distinct from other types of places based on one or two defining dimensions.

Surgical Services in Critical Access Hospitals, 2011
Paula Weigel, PhD; Fred Ullrich, BA; Marcia M. Ward, PhD; Keith J. Mueller, PhD
This brief describes the types and volume of major surgical services provided in Critical Access Hospitals (CAHs) across four regionally representative states in 2011. Of the surgery volume performed in CAHs, on average 77 percent was performed on an outpatient basis and 23 percent inpatient. Operations on the musculoskeletal system, the eye, and the digestive system accounted for 67 percent of all surgical procedures performed in CAHs. Most reports of surgery volume in CAHs focus on inpatient procedures, thus missing a significant portion of the surgery volume that CAHs perform. CAHs offering outpatient procedures that complement inpatient surgical capacity are providing the communities they serve significant and valuable services through access to both convenient and emergent surgical care services that lessen many of the health care burdens associated with travel for surgery and follow-up care.

Developmental Strategies and Challenges for Rural Accountable Care Organizations
Jure Baloh, MHA; A. Clinton MacKinney, MD, MS; Keith J. Mueller, PhD; Tom Vaughn, PhD; Xi Zhu, PhD; Fred Ullrich, BA
This policy brief shares insights into initial strategic decisions and challenges of four Accountable Care Organizations (ACOs) with a rural presence, one from each census region (West, Midwest, Northeast, and South). Semi-structured on-site interviews were conducted with ACO leaders and key stakeholder group representatives (e.g., board members, physicians). The four ACOs were formed as a step toward a value-driven rural delivery system, recognizing that ACO participation may not have a short-term return on investment. Common value-enhancing strategies included care management, post-acute care redesign, medication management, and end-of-life care planning. The four ACOs also emphasized the importance of access to data for population health management, care management, and provider participation. While several challenges need to be addressed, these insights can inform development of other rural ACOs.
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 for 2015: $3,759,383 | Funding Period: 2010 - 2016
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 for 2015: $680,880 | Funding Period: 2010 - 2016
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 Center for Medicare and Medicaid Services data on metrics and characteristics.

Project Seeks to Identify Characteristics that Lead to Culture of Health in Rural Communities
Xi Zhu is co-PI with Keith Mueller on a study to determine the role rural communities and hospitals play in building a local Culture of Health. The project aims to develop an understanding of community and health system characteristics associated with a Culture of Health and to identify strategies to lead the change toward building a local Culture of Health in rural communities. It will combine an analysis of national data with case studies of selected rural communities. The researchers look to identify community characteristics and innovations that have made significant impacts on population health, well-being, and equity, along with strategies that rural hospitals and broad-based community coalitions can use to achieve and sustain a Culture of Health.

Funding for this project comes from the Robert Wood Johnson Foundation.
Project Evaluates Health Workforce Development Programs in Iowa

As PI, Keith Mueller led an evaluation of 13 health workforce development programs overseen by the Bureau of Oral and Health Delivery Systems in the Iowa Department of Public Health (IDPH). The programs were studied over several months to determine scope and impact as well as gaps and barriers to success. Eight of the 13 programs currently receive annual state-appropriated funds totaling $2,668,000. As part of the program evaluation, recommendations for fund-allotment to improve outcomes were made.

“We recommend that the state continue to target specific needs such as mental and dental health and fund approaches that promote recruitment and retention including providing expanded training,” said Mueller. “We acknowledge the efforts of the IDPH administrators to monitor program performance and shape future directions for developing Iowa’s health workforce. These programs represent the state’s response to needs of Iowans for proximate access to vital services, and ongoing evaluation will be important.”

This project was funded by Iowa Department of Public Health and US Department of Health & Human Services, Centers for Disease Control & Prevention.

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 for 2015: $2,512,654 | 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 for 2015: $549,388 | 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.

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
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 enter for Medicare and Medicaid Services and to support inclusion of a rural, patient-centered perspective in the national policy discussion.
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 for 2015: $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 Institute of Health
Principal Investigator: Brad Wright
Co-Investigator: Padmaja Ayyagari
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 for 2015: $109,836 | Funding Period: 2015 - 2016
This project will obtain, process, and analyze claims data for Mercy DSM.

Lack of Awareness and Limited Access to Care Affect Treatment for Eating Disorders in Iowa

Kim Merchant conducted a statewide eating disorders needs assessment by interviewing providers, families, patients, and others throughout Iowa. Participants report lack of awareness of eating disorders and their prevalence in communities as well as among physicians.

“Translating the national prevalence of eating disorders – 30 million Americans – to Iowa's population means we could have more than 291,000 Iowans struggling with eating disorders,” Merchant explained. “Yet, we have only about a score of clinicians who specialize in the field. Family, friends, and school personnel are often the first to notice when someone needs help, but don’t know how or where to get help.”

Participants also report lack of access to care in Iowa due to being rural as well as having limited providers and treatment options. Obstacles to treatment include stigma related to eating disorders, the emphasis on treating obesity, and issues with insurance. Building a robust eating disorder research program and educating future physicians were noted as possible opportunities within Iowa.

This project received funding from the University of Iowa Office of Outreach and Engagement.
Program Evaluation of AHA’s STEMI Program in Wyoming
American Heart Association, The Leona M. and Harry B. Helmsley Charitable Trust
Principal Investigator: Marcia Ward
Co-Investigator: A. Clinton MacKinney, Kimberly Merchant, Keith Mueller

AND

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 for 2015: $154,544 | Funding Period: 2013 - 2016

Both of these projects were program evaluations of the American Heart Association’s Mission: Lifeline, which is a national, community-based initiative. 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). These projects conduct a qualitative program evaluation of the progress toward implementation of this initiative throughout each of the states listed.

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 for 2015: $420,442 | Funding Period: 2015 - 2016
This study will provide research for the Iowa City VA Health Care System: VA Rural Health Resource Center.

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 for 2015: $64,899 | Funding Period: 2015 - 2017
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.

Wright Looks at FQHC Usage Among Dual Eligibles
Brad Wright is among the first to evaluate the relationship between receiving care at federally qualified health centers (FQHCs) and the rate of hospital stays and emergency department (ED) visits for potentially preventable conditions among individuals who receive both Medicare and Medicaid, known as “dual eligibles.” FQHCs are stand-alone health care facilities that receive federal grants to administer care to underserved populations. Wright and others found that FQHC use was associated with a reduction in potentially preventable hospital stays among black and Hispanic dual eligibles. By contrast, FQHC use was associated with an increase in potentially preventable ED visits for all dual eligibles regardless of race or ethnicity.

This project was funded by the Retirement Research Foundation.
**Studies Across the Lifespan - Children and Adolescents**

**Identifying Determinants of Birth Outcomes in South America**  
US Department of Health & Human Services, National Institutes of Health  
Principal Investigator: George Wehby  
Direct Funds: $102,227 | Funding Period: 2010 - 2015  
This project aims at identifying determinants of adverse birth outcomes including low birth weight, preterm birth, and intrauterine growth restriction in several understudied South American populations. Study results are highly relevant for identifying prevention strategies not only for the included countries but also for others including the United States.

**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 - 2016  
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.

**Academic Achievement of Children and Adolescents with Oral Clefts**  
US Department of Health & Human Services, National Institutes of Health  
Principal Investigator: George Wehby  
Co-Investigator: Paul Romitti  
Direct Funds: $210,220 | Funding Period: 2011 - 2015  
This study compared the educational achievement of children and adolescents with oral clefts with their siblings and classmates and how differences in achievement varied by socioeconomic, demographic, and health backgrounds.

**Improving Knowledge and Understanding of Appropriate Treatment of Orofacial Clefts**  
Operation Smile, Inc.  
Principal Investigator: George Wehby  
Direct Funds: $35,775 | Funding Period: 2012 - 2015  
Investigate barriers of access to treatment and care for individuals with orofacial clefts in the United States by conducting a comprehensive review of available knowledge and publications to assist with the creating of effective strategies to improve access to health care services for children with orofacial clefts.

**Gestational Age, Metabolic Markers, and Academic Achievement**  
Bill and Melinda Gates Foundation  
Principal Investigator: George Wehby  
Direct Funds: $100,000 | Funding Period: 2014 - 2016  
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.
STUDIES ACROSS THE LIFESPAN - OLDER POPULATIONS

The Iowa Study on Promoting Successful Aging within Academic Institutions: Phase III
Teachers Insurance & Annuity Association - College Retirement Equities Fund (TIAA-CREF)
Principal Investigator: Brian Kaskie
Direct Funds: $52,127 | Funding Period: 2013 - 2015
This study contributed to the development of a retirement readiness design process for institutions of higher education.

Evaluating the Impact of Social Security Benefits on Health Outcomes among the Elderly
Boston College, Social Security Administration
Principal Investigator: Padmaja Ayyagari
Direct Funds: $40,208 | Funding Period: 2014 - 2015
The purpose of this project is to determine the impact of Social Security benefits on a wide array of health outcomes including depression, disability, cardiovascular disease, and cognitive function. The project also evaluates heterogeneity in the impact of income by education, race, ethnicity, and baseline health status.

Cognitive Training and Practice Effects in MCI
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.

Project Studies Social, Economic, and Healthcare Determinants of Child Health in South America

As part of a larger project examining socioeconomic and healthcare mechanisms contributing to child health in South America, George Wehby and South American collaborators led by Dr. Jorge Lopez-Camelo, director of research at the Center for Medical Education and Clinical Investigation (CEMIC) in Buenos Aires, Argentina, examined disparities in birth weight and gestational age by ethnic ancestry in eight South American countries.

They found ethnic disparities in all countries except Chile. In Brazil, Ecuador, Uruguay, and Venezuela, they found disparities in both low birth weight and preterm birth. In Argentina, Bolivia, and Colombia, they found disparities in preterm birth alone. They also found differences in fetal growth rate in several settings.

“A particularly interesting finding in our work is that no group consistently had the highest or lowest rates of adverse birth outcomes in all countries,” said Wehby. “Even though our work points to extensive disparities in child health in several South American countries, it also indicates that these disparities are driven by socioeconomic mechanisms that may be specific to each country.”

This project concluded that policymakers should acknowledge disparities and develop programs to effectively target them.

This project was funded by the U.S. Department of Health & Human Services, National Institutes of Health, Fogarty International Center.
STUDIES FOCUSED ON TELEHEALTH

Evidence-Based Tele-emergency Network Grant Program - Developing Outcome Measures and Associated Data Elements for Emergency Medical Services Using Telehealth Technology
Mathematica Policy Research/US Department of Health & Human Services, Health Resources & Services Administration
Principal Investigator: Marcia Ward
Co-Investigator: A. Clinton MacKinney, Keith Mueller
Director Funds: $54,318 | Funding Period 2014 – 2015
This project looked at evidence-based tele-emergency technology to develop outcome measures and associated data elements for Emergency Department services using telehealth technology.

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
Director Funds: $548,674 | 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
Director Funds: $170,048 | 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: $77,725 | Funding Period 2015 – 2017
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.
Padmaja Ayyagari was PI on a study that determined an increase in annual Social Security income can lead to a significant improvement in many dimensions of cognitive function among seniors.

Due to changes in the Social Security Act in the 1970s, cohorts born between 1910 and 1917 received higher Social Security benefits resulting in a permanent increase in income for these persons. This “notch” group has been studied to determine the impact of increased Social Security income on prescription drug use, weight, mental health, mortality, living arrangements, and utilization of long-term care services. Ayyagari’s study is the first to review the impact on cognitive function.

Using data from the Study of Assets and Health Dynamics among the Oldest Old (AHEAD), she found significant improvement in working memory, knowledge, language, and orientation among the notch group.

“These findings have important implications for aging populations,” said Ayyagari, “especially given the rising prevalence of cognitive impairment.”

Her findings are also important for public policy during a time when U.S. policymakers are considering changes to Social Security benefits. David Frisvold, assistant professor in Economics in the UI College of Business, collaborated with Ayyagari on this work.

Funding for this project was provided by the U. S. Social Security Administration and Boston College Center for Retirement Research.
The Rural Telehealth Research Center (RTRC) started work in September 2015.

It is focused on building the evidence base for telehealth, especially how it is used in rural settings. Broadly, RTRC will do research to advance clinically informed and policy-relevant information. Rigorous research is needed to identify telehealth models that are affordable and sustainable, enhance rural access, and maintain and improve quality.

“RTRC is based at the University of Iowa, but it is a collaboration with research centers at the University of North Carolina-Chapel Hill and University of Southern Maine,” said Marcia Ward, director of RTRC. “We are thrilled to not only be awarded the opportunity to establish this new national research center, but to be a part of developing meaningful evidence in this important field. Telehealth has been around for a while, yet there is much more that needs to be done to build the evidence base for its effectiveness and cost-efficiency.”

RTRC is funded by HRSA’s Federal Office of Rural Health Policy (FORHP) for four years.
The following four projects are underway for 2015-2016.

Designing a study for collection of uniform measures by 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 design study concepts whereby the EB TNGP grantees will be able to collect data on a uniform set of measures to help establish the evidence base for tele-emergency.

Launch of a study for collection of uniform measures by the Evidence-Based Tele-emergency Network Grant Program grantees
Lead researcher: Marcia M. Ward, PhD
Once study concepts are vetted, protocols will be developed and this project will launch a study where the EB TNGP grantees begin to collect data on a uniform set of measures to help establish the evidence base for tele-emergency.

The impact of emergency telemedicine on timeliness, process of care, and clinical outcomes in rural North Dakota trauma care
Lead researcher: Nicholas M. Mohr, MD, MS
This project is a comparative effectiveness study of North Dakota trauma patients to measure the impact of telemedicine-enabled emergency care between 2008-2014 on: 1) time to arrival at definitive care; 2) diagnostic imaging performed in rural hospitals; 3) probability of transfer to tertiary trauma center; and 4) survival. This research will measure the effectiveness of telemedicine to influence rural trauma care in a real-world application and will provide data for a subsequent cost-effectiveness study.

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.
Publications by CHPR Associates


Presentations by CHPR Associates


Atchison, C. G., “State Hygienic Laboratory Legislative Focus,” Iowa Public Health Association Legislative Forum, IPHA, Des Moines, IA. (December 2015).


MacKinney, A. C., “From Volume to Value - The Rural Hospital Glade Path,” Joint Board Retreat, Ashland Memorial Medical Center, Ashland, WI. (June 2015).


Montgomery, I., "Effective Team and Meeting Management," University of Iowa MPH Student Association, Iowa City, IA. (September 2015)


Mueller, K., “Advancing the Transition to a High Performance Rural Health System,” Institute for Public Health, Washington University, St. Louis, MO. (March 2015).

Mueller, K., “Trends, Developments and Opportunities in Rural Health Care,” Gibson City Area Hospital, Gibson City, ID. (March 2015).


Wright, B., “Exploring Variation in the Use and Duration of Observation Care,” Department of Health Management and Policy, School of Public Health, University of Michigan, Ann Arbor, MI. (January 2015).

Wright, B., “The Primary Care and Public Health Activities of Community Health Centers and Local Health Departments in Iowa,” Iowa Governor’s Conference on Public Health, Cedar Rapids, IA. (April 2015).

Wright, B., “Hospital, Patient, and Local Health System Characteristics Associated with the Prevalence and Duration of Observation Care,” AcademyHealth Annual Research Meeting, Minneapolis, MN. (June 2015).

Wright, B., “Racial/Ethnic Disparities in Ambulatory-Care Sensitive Hospital Utilization Among Dual Eligibles Receiving Care at Federally Qualified Health Centers,” AcademyHealth Annual Research Meeting, Minneapolis, MN. (June 2015).

Wright, B., “Organizational Scope of Practice: Assessing the Primary Care and Public Health Activities of Health Centers and Health Departments in Iowa,” AcademyHealth Annual Research Meeting, Minneapolis, MN. (June 2015).


Wright, B., “Exploring Variation in the Use and Duration of Observation Care. Social Science Applied to Healthcare Improvement Research (SAPPHIRE),” University of Leicester, United Kingdom. (July 13).


Zhu, X., “Pre-Training Preparation for TeamSTEPPS: Lessons Learned from Iowa CAHs,” Iowa Critical Access Hospital Quality Improvement Coordinator Meeting, Iowa Department of Public Health, Altoona, IA. (June 2015).


Forthcoming Publications by CHPR Associates


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 Ph.D. Program in terms of excellence or promise of excellence in health services and policy research.

The winners for 2015 are Jure Baloh and Andrew Potter. These two students were especially commended for their progress on research and publications.

Congratulations, Jure and Andy!

Jure’s research interests include: quality improvement, organizational change/development and implementation of evidence-based practices.

Andy’s research focuses on policies related to long-term services and supports provided to older adults, especially those that affect the relationship between informal caregivers and the health care delivery system.