<table>
<thead>
<tr>
<th>Statistic</th>
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<tr>
<td>Total research projects</td>
<td>29</td>
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<tr>
<td>Total research funding</td>
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<td>Center Associates</td>
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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 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 2018 Annual Report!

The following pages list faculty, staff, and students who received funding through Center projects in 2018, Friday Seminar Series presentations, research projects, publications and presentations by Center Associates and PhD students, plus highlights on several projects.
Center Associates

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.

Kanika Arora, PhD
Assistant Professor and MPH Faculty Advisor
Research interests: aging, long-term care, intergenerational relations, program evaluation

Sue Curry, PhD
Distinguished Professor and Interim Provost
Research interests: health policy, implementation of evidence-based practice guidelines, behavioral risk factor modification, cancer prevention and control, community-based participatory research

Dan Gentry, PhD, MHA
Clinical Professor and MHA Program Director
Research interests: health services and policy, quality and the patient experience, program evaluation, health professions education

Brian Kaskie, PhD
Associate Professor and MS in Health Policy Program Director
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 and EMHA Program Director
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
Associate Professor
Research interests: health economics, health insurance, applied econometrics, healthcare reform evaluations, physician incentives and healthcare reform
Hari Sharma, PhD
Assistant Professor
Research interests: health economics, costs, quality, disparities, nursing homes

Tanya Uden-Holman, PhD
Clinical Professor and Associate Provost for Undergraduate Education
Research interests: public health workforce development, competency-based assessment, and applying continuous quality improvement tools in health care organizations

Thomas Vaughn, PhD
Associate Professor and Interim Associate Dean for Academic Affairs
Research interests: health services organization and policy, leadership and quality, organizational factors associated with effectiveness

Marcia Ward, PhD
Professor and Director of Center for Health Policy and Research
Research interests: health services, telehealth, patient safety and quality, rural healthcare delivery, healthcare utilization and outcomes
**George Wehby, PhD**  
Professor and HMP Doctoral Program Director  
Research interests: health economics, applied econometrics, health services research, healthcare effectiveness, maternal and child health

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

**Xi Zhu, PhD**  
Associate Professor  
Research interests: organizational behavior, organization theory, healthcare policy and management, social network analysis, economic sociology
Center Affiliates

University of Iowa Faculty and Staff Partners

T. Renee Anthony, Occupational & Environmental Health
Suzanne Bentler, Public Policy Center
Knute Carter, Biostatistics
Marsha Cheyney, Occupational & Environmental Health
Jenna Gibbs, Occupational & Environmental Health
Karisa Harland, Emergency Medicine
Elaine Himadi, Emergency Medicine
Raymond Kuthy, Dentistry
Kimberly Merchant, Health Management and Policy
Gary Milavetz, Pharmacy
Nicholas Mohr, Emergency Medicine
Edith Parker, Community and Behavioral Health
Jocelyn Richgels, Health Management and Policy/RUPRI
Diane Schaeffer, Health Management and Policy
Daniel Sewell, Biostatistics
Fred Ullrich, Health Management and Policy
Paula Weigel, Health Management and Policy
Kristi Yeggy, Health Management and Policy

Graduate Research Assistants

Divya Bhagianadh
Redwan Bin Abdul Baten
Morgan Bobb
Delaney Bounds
Emma Cole
J. Alton Croker
Huang Huang
Nora Kopping
Katelin Kornfeind
Wei Lyu
Erin Mobley
Muska Nataliansyah
Onyinye Oyeka
Abiodun Salako
Mina Shrestha
Seamus Taylor
Winnie Uluocha
Tyler Ust

Photo: Eric Muhr
Organizational Partners, Subcontractors, and Consultants

Charles Alfero, HMS Center for Health Innovation
Abby Barker, Washington University, St. Louis
Mandy Bell, Avera Health
Julie Bobitt, University of Illinois at Urbana Champaign
Amanda Burgess, University of Southern Maine
Victoria Cech, Montana Hospital Association
Jon Christanson, University of Minnesota
Andy Coburn, University of Southern Maine
Kevin Duff, University of Utah
Pam Ford-Taylor, University of Southern Maine
Kimberley Fox, University of Southern Maine
Brian Fuller, Consultant
Yvonne Jonk, University of Southern Maine
Leah Kemper, Washington University, St. Louis

Jennifer Lundblad, Stratis Health
Luke Mack, Avera Health
Amanda Martin, Center for Rural Health Innovations
Timothy McBride, Washington University, St. Louis
Alan Morgan, National Rural Health Association
Susan Nardie, University of Nebraska Medical Center
Stephen North, Center for Rural Health Innovations
David Palm, University of Nebraska Medical Center
Karen Pearson, University of Southern Maine
George Pink, University of North Carolina Chapel Hill
Andy Potter, California State University-Chico
Randy Randolph, University of North Carolina Chapel Hill
Kristin Reiter, University of North Carolina Chapel Hill

Lindsay Sabik, University of Pittsburgh
George Shaler, University of Southern Maine
Christopher Shea, University of North Carolina Chapel Hill
Jean Talbot, University of Southern Maine
Kali S. Thomas, Brown University
Kristie Thompson, University of North Carolina Chapel Hill
Amal Trivedi, Brown University
Tanya Wanchek, University of Virginia
Kevin Wellen, CliftonLarsonAllen
Karla Weng, Stratis Health
Wesley Winkelman, University of North Carolina Chapel Hill
Amy Wittrock, Avera Health
Changes to the Merit-based Incentive Payment System Pertinent to Small and Rural Practices

Abiodun Salako, MPH; A. Clinton MacKinney, MD, MS; Fred Ullrich, BA; Keith Mueller, PhD

The flexibility built into the MIPS program by the original regulatory framework and further enhanced by changes over the past year is essential to providers—particularly those in small and rural practices—as they transition to this new pay-for-performance system. A recent Government Accountability Office report on the performance of providers in MIPS precursor programs (PQRS and VM) revealed that small practices performed worse than large practices; i.e., they did not meet reporting requirements for PQRS or did not meet cost and quality performance targets for VM. This trend—poorer performance of small practices in pay for-performance programs—is expected to continue into the MIPS. Rural providers have often struggled with implementing new pay-for-performance programs due to lack of the technical infrastructure and support needed for successful implementation. However, providing exemptions from MIPS participation or reporting may not be the best means of addressing rural practice challenges. Exemptions from MIPS may exclude rural Medicare beneficiaries and providers from a payment system designed to reward providers for maximizing health care value. Rather than providing exemptions, rural providers could be provided with incentives and support to adopt the tools (e.g., CEHRT) necessary for meaningful participation in MIPS. The Small, Underserved, and Rural Support (SURS) initiative established by the original MACRA legislation is a step in this direction. This initiative provides clinicians in rural and other underserved areas with free technical assistance in choosing and reporting MIPS performance measures, as well as assistance to improve health information technology systems and clinical care quality. However, this program is funded for only five years (FY 2016-2020). Rural providers may need support for additional years to convert fully to new systems and therefore continuously participate in MIPS. Furthermore, adequate rural representation during planned consultations with stakeholders on MIPS measures could go a long way in ensuring that the measures developed are sensitive to the unique context of rural practice.

Medicare Accountable Care Organization Growth in Rural America, 2014–2016

A. Clinton MacKinney, MD, MS; Fred Ullrich, BA; Keith Mueller, PhD

This RUPRI Center data report describes accountable care organization (ACO) growth in nonmetropolitan U.S. counties from 2014 to 2016. ACOs are the most-widespread of the Centers for Medicare & Medicaid Services (CMS) value-based payment programs and demonstrations. Key findings include the number of counties with five percent or more of Medicare fee-for-service beneficiaries attributed to a Shared Savings ACO increased in both metropolitan and non-metropolitan areas from 2014 to 2016. The growth rate in non-metropolitan counties (89.6 percent) was more than twice the rate in metropolitan counties (40.9 percent). In addition, the number of counties with at least one Shared Savings ACO with attributed Medicare beneficiaries increased in both metropolitan and non-metropolitan areas from 2014 to 2016. The growth rate in non-metropolitan counties (26.7 percent) was nearly three times the rate in metropolitan counties (9.4 percent).
Trends in Hospital System Affiliation, 2007-2016

Onyinye Oyeka, MPH; Fred Ullrich, BA; and Keith Mueller, PhD

Hospital system affiliation continued to increase from 2007 to 2016 in hospitals of all sizes, in nongovernment not-for-profit hospitals, in hospitals in all census regions, in CAHs, and in both metropolitan and non-metropolitan hospitals. While system affiliation grew among all hospitals, affiliation by metropolitan PPS hospitals in all census regions except the South grew at a faster rate from 2012 to 2016 compared the growth rate from 2007 to 2012. System affiliation among non-metropolitan CAHs declined across all regions between 2012 and 2016 when compared with system affiliation among non-metropolitan CAHs from 2007 to 2012. Non-metropolitan hospitals and CAHs face unique challenges, given the demographics of the population in their service area, payer mix, and reimbursement levels. All of these conditions contribute to the greater financial constraints faced by many CAHs. System affiliation can be a strategy to participate in new care and payment models that require investment in information systems and/or large patient populations. Rural hospital leaders will weigh that benefit against implications for any desire to remain an independent provider. Further research will be useful to understand the stagnation in system affiliation for non-metropolitan hospitals in the West census region, and the impact that hospital closures and/or the financial state of these hospitals has on system affiliation. Our analysis shows that most large systems have relatively low representation of non-metropolitan CAHs. There are several reasons why a large system might not be motivated to affiliate with small CAHs or rural hospitals. For example, research results suggest that profitability may decline after affiliation. The RUPRI Center is studying the motivation for larger systems to affiliate with rural hospitals and the necessary and practical steps rural hospitals can take to make themselves attractive affiliation partners.

Spread of Medicare Accountable Care Organizations in Rural America

Nora Kopping, BA; Fred Ullrich, BA; and Keith Mueller, PhD

The number of Medicare ACOs present in nonmetropolitan America has grown since the RUPRI Center’s October 2016 data report. As of January 2018, 1,210 Rural Health Centers (sic) and 421 critical access hospitals participated in SSP ACOs. Some (unspecified) percentage of the 2,560 Federally Qualified Health Centers participating in the program are in rural places. The observed increase in the proportion of nonmetropolitan ACOs since performance year 2015 likely reflects the impact of the AIM program’s support for infrastructure development in rural ACOs. Following a trend present in previous years, nonmetropolitan ACO participation in two-sided risk models remains low. No nonmetropolitan ACO in performance year 2017 participated in a model that included downside risk, and ACOs who did participate in these models tended to be more metropolitan. Preference for one-sided risk models may be attributable in part to the 2016 final rule allowing ACOs to extend their time in Track 1. The findings described in this data report reflect what are still the early years of ACO operations. As more years of data become available, future research should attempt to generate statistical observations about ACO outcomes related to cost and quality. The growth in ACOs in nonmetropolitan America evidenced in this data report underscores the need in the meantime for continued monitoring of ACO impacts on health care service delivery.
Health Insurance Marketplaces: Issuer Participation and Premium Trends in Rural Places, 2018

Abigail R. Barker, PhD; Lindsey Nienstedt, BA; Leah M. Kemper, MPH; Timothy D. McBride, PhD; Keith J. Mueller, PhD

This brief examines 2018 HIM premium increases in both urban and rural areas in the context of prior data and relevant economic theory. As in past years, average firm participation is lower in rural places while average adjusted premiums are higher, again suggesting that for the individual insurance market to work well for rural populations, some policy changes are needed. Very high premium increases – no longer inversely related to rating area population density – may reflect the decision to end Federal cost-sharing reduction (CSR) payments. Many issuers anticipated that CSR payments might not continue, even though their legal obligation to provide CSR plans remains, so they factored their anticipated loss into their 2018 premiums.

Since the cost of such an adjustment is proportional to the population being covered, it is reasonable to expect that these costs would be uniformly distributed across population density categories and may have simply dominated the expected population density effect. If this is the case, i.e., that these results reflect a response to a one-time policy change, then in the future we may see a return to the prior trends. If not, policymakers may need to reconsider how to ensure that the individual market functions for rural consumers.
Update: Independently Owned Pharmacy Closures in Rural America, 2003-2018

Abiodun Salako, MPH; Fred Ullrich, BA; Keith J. Mueller, PhD

Over the last 16 years, 1,231 independently owned rural pharmacies (16.1 percent) in the United States have closed. The most drastic decline occurred between 2007 and 2009. Pharmacies are an essential cornerstone in the delivery of health services to rural communities. In rural areas, pharmacies not only provide access to medications but also deliver clinical services such as medication counseling, blood pressure and glucose monitoring, immunizations, patient consultation, treatment of mild illnesses amenable to over-the-counter medications, and other counselling and educational services (including chronic disease and medication therapy management). Thus, rural pharmacies play an important role in alleviating the poor access to health services prevalent in many rural communities. Closure of pharmacies in rural communities can have grave implications for the population’s access to health services, requiring them to travel to another community for pharmacy services or to rely on mail order services that cannot provide clinical services.

The sharp decline in the number of rural, independent pharmacies in the first years following Medicare Part D implementation has been attributed to the challenges, mostly financial, that the program posed to these pharmacies. Although a number of studies have shown that the Part D program led to increased use of prescriptions drugs by the elderly, this increase in sales was offset by the reduced revenue that those prescriptions provided. For many rural independently owned pharmacies, Medicare Part D replaced direct payments from cash-paying customers with low and late reimbursements from Part D plans, leaving many of these pharmacies unable to generate positive revenue from prescription sales. These fiscal challenges have made it difficult for many rural independent pharmacies—who rely heavily on revenue from prescription sales (compared to their chain pharmacy counterparts)—to stay open. The fiscal challenges posed by the Part D program are perceived to be causes of the sharp decline in rural independent pharmacies in the early years of the Part D program.

Residents of rural communities that have lost their only pharmacy often have no choice but to travel to other communities to obtain prescriptions—a barrier for individuals with limited mobility. Mail order services are frequently cited as a means for obtaining prescription service for isolated residents, but mail order cannot provide the benefits of face-to-face consultation or the same clinical services that are available from a local pharmacy. Tele pharmacy services may provide an alternative to local pharmacies. However, diffusion of this service has been slow. It is thus important to continue to monitor trends in rural pharmacy closures and examine how future changes in the Part D program and prescription reimbursement policies impact these trends given the crucial role these pharmacies play in rural access to care.
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
Annual Direct Funds: $536,901 | Funding Period: 2010 - 2020

The Center continues 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 Healthcare”) guides analysis of the impact of public policies on achieving a more desirable future for rural health services.

RUPRI Consulting on WE KAN Project with Washburn University
Washburn University
Principal Investigator: Keith Mueller
Co-Investigator: A. Clinton MacKinney
Annual Direct Funds: $42,975 | Funding Period: 2017 - 2019

RUPRI’s role is to provide a national perspective on methods to improve the health of individuals, families, and populations and analysis of the problems, issues, and alternatives in the design and delivery of healthcare services to the WE KAN project.

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
Annual Direct Funds: $472,885 | Funding Period: 2016 - 2019

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.
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
Annual Direct Funds: $104,727 | Funding Period: 2010 - 2019
The RUPRI Center continues to update its database of Medicare Accountable Care Organizations (ACOs) as they are approved and as some withdraw from the program.

Rural Health Value Program
US Department of Health & Human Services, Health Resources & Services Administration
Principal W: Keith Mueller
Co-Investigators: A. Clinton MacKinney, Thomas Vaughn, Marcia Ward, Xi Zhu
Annual Direct Funds: $373,492 | Funding Period: 2012 - 2019
The purpose of the Rural Health Value Program (RHVP) is to inform key stakeholders regarding the impacts and implications of changes currently underway in healthcare finance and delivery. Equally important, the RHVP guides and accelerates appropriate rural-centric adaptation to, and leadership in, these changes by providing resources and technical assistance to rural providers and community stakeholders.

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
Annual Direct Funds: $70,120 | Funding Period: 2014 - 2020
The Montana Health Education and Research Foundation, in partnership with the Rural Policy Research Institute, works with the Federal Office of Rural Health Policy to develop appropriate and attainable evaluative structures to complement analysis conducted by the Centers for Medicare and Medicaid Services.

Rural Policy Analysis Program
US Department of Health & Human Services, Health Resources & Services Administration
Principal Investigator: Keith Mueller
Annual Direct Funds: $188,177 | Funding Period: 2017 - 2021
This Cooperative Agreement supports the work of the RUPRI Rural Health Panel and human services support to the Federal Office of Rural Health Policy.

Developing a Request for Proposal to Establish the Rural Health System Innovation Center in Georgia
Georgia Department of Community Health
Principal Investigator: Keith Mueller
Annual Direct Funds: $3,891 | Funding Period: 2018 - 2019
This award supports the consultation and related services to assist the Georgia Department of Community Health in efforts to develop their own Rural Health System Innovation Center.
Studies Focused on Telehealth

Avera EB TNGP Evaluation
Avera Health/US Department of Health & Human Services, Health Resources & Services Administration  
Principal Investigator: Marcia Ward  
Co-Investigators: Knute Carter, Nicholas Mohr, Dan Shane, Xi Zhu  
Annual Direct Funds: $121,456 | Funding Period 2016 – 2019  
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
US Department of Health & Human Services, Health Resources & Services Administration  
Principal Investigator: Marcia Ward  
Co-Investigators: Knute Carter, A. Clinton MacKinney, Nicholas Mohr, Keith Mueller, Xi Zhu  
Annual Direct Funds: $781,116 | 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.

Avera and University of Iowa Helmsley Tele-Behavioral Health Grant
Avera Health/Leona M. and Harry B. Helmsley Charitable Trust  
Principal Investigator: Marcia Ward  
Co-Investigator: Nicholas Mohr  
Annual Direct Funds: $98,361 | Funding Period 2018 – 2020  
This project evaluates new models of tele-behavioral health delivered by Avera Health.
Spotlight: Rural Health Value
Assisting rural communities and providers transition to a high performance rural health system

Helping rural hospitals in the Pennsylvania Rural Health Model complete their transformation plans

Dramatic changes are underway in health care delivery and finance. The changing landscape creates new opportunities to design and strengthen local systems of care in rural America. This project, funded by the Federal Office of Rural Health Policy, utilizes the extensive analytic and technical assistance capacity of the RUPRI Center for Rural Health Policy Analysis and Stratis Health to understand how new health care delivery and financing systems affect rural communities and providers.

The project will help rural providers transition to new approaches that support success in a rapidly changing environment. The project team has considerable experience and success analyzing the rural implications of changes in health services, providing input to shape U.S. rural health care delivery, and helping providers and communities transition to new health care paradigms while maintaining and strengthening essential local services.

Rural Health Value aims are three-fold: 1. Assess rural implications and facilitate rural adaptability to changes in health care delivery, organization, and finance, 2. Develop and test technical assistance tools and resources to enable rural providers and communities to take full advantage of public policy changes and private sector initiatives, and 3. Inform further developments in public policy and private action through dissemination of findings.

Four forces will influence rural health care delivery in the coming years: changes in payment policies and financing sources, continually evolving quality measures and expectations, evolving models of care to deliver services locally including from distant sources, and regional health care affiliations. We have designed three specific project aims that will help rural providers and policy makers better understand the implications of changes and emerging models and will assist rural providers to participate in national and local demonstrations and pilots. In doing so, we envision that the collective effort will contribute to transforming rural health care to a high performance system.

The model is available at https://innovation.cms.gov/initiatives/pa-rural-health-model/
Studies Across the Lifespan

**Dental Health and Academic Achievement Among Children in Medicaid**

US Department of Health & Human Services, National Institutes of Health  
Principal Investigator: George Wehby  
Annual Direct Funds: $100,000 | Funding Period: 2017 - 2019

This project aims to identify the effects of dental problems and early access to preventive dental care and treatments on children’s educational achievement using unique linkages between the Iowa Medicaid data, birth certificate, and academic achievement outcomes, and sibling and classmate comparisons.

**Cognitive Training and Practice Effects in MCI**

University of Utah/US Department of Health & Human Services, National Institutes of Health  
Principal Investigator: Fredric Wolinsky  
Annual Direct Funds: $19,072 | Funding Period: 2014 - 2019

This project focuses on determining whether an active intervention group receiving 40 hours of advanced cognitive training focusing on processing speed and auditory memory vs. an attention control group receiving 40 hours of games that are not known to train cognitive function (e.g., crossword puzzles) can improve cognitive function in people with mild cognitive impairment, and whether that cognitive improvement will endure for at least one year.
Effects of the Minimum Wage on Long-Term Child Health and Development
Robert Wood Johnson Foundation
Principal Investigator: George Wehby
Annual Direct Funds: $113,577 | Funding Period: 2018 - 2020
This study evaluates the effect of minimum wage before/during pregnancy and at different stages of a child's life on a range of child health and development outcomes and underlying mechanisms.

Cannabis and Older Persons Study
Illinois Department of Public Health/University of Illinois at Urbana-Champaign
Principal Investigator: Brian Kaskie
Annual Direct Funds: $54,871 | Funding Period: 2017 - 2019
This study examines what is known about the intersection between cannabis and the aging American population, reviews trends concerning cannabis use and applies the age–period–cohort paradigm to explicate varied pathways and outcomes.

Insurance Coverage Policies and Outcomes of Children with Oral Clefts
US Department of Health & Human Services, National Institutes of Health
Principal Investigator: George Wehby
Annual Direct Funds: $118,304 | Funding Period: 2016 - 2019
The study is examining 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 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
Annual Direct Funds: $50,000 | Funding Period: 2016 - 2019
This study identifies the impacts of private dental coverage utilization of preventive dental services as well as dental insurance spending.

Increasing Awareness of and Access to Clinical Trials for Adolescents and Young Adults with Cancer in Iowa
Iowa Cancer Consortium
Principal Investigator: Erin Mobley
Annual Direct Funds: $10,484 | Funding Period: 2017 - 2018
The two primary aims of this study are to identify barriers to clinical trial enrollment for Adolescents and Young Adults (AYAs) and to test whether clinical trial enrollment changed as a result of various initiatives implemented.
Do State Regulations Affect the Outcome of Assistant Living Residents with Dementia?

US Department of Health & Human Services, National Institutes of Health, & Brown University
Principal Investigator: Brian Kaskie
Annual Direct Funds: $105,000 | Funding Period: 2018 - 2019

This policy study analyzed states’ residential care and assisted living (RC/AL) regulations for dementia care requirements.

Older Coloradoans and Marijuana: A Public Health Problem or Policy Alternative

Colorado Department of Public Health and Environment
Principal Investigator: Brian Kaskie
Co-Investigator: Kanika Arora
Annual Direct Funds: $16,382 | Funding Period: 2017 - 2018

The primary aim of this project is to empirically illuminate the rapidly growing intersection between Colorado’s aging population and marijuana use. With the support of a CDPHE Marijuana Public Health Research Pilot Grant, 32 focus groups are being conducted across the state of Colorado and use primary data to meet objectives.

Illuminating the Intersection between Older Persons and Medical Cannabis

Retirement Research Foundation
Principal Investigator: Brian Kaskie
Co-Investigators: Kanika Arora
Annual Direct Funds: $109,358 | Funding Period: 2017 - 2018

The purpose of this research project is to close the gaps in what is currently known about the use of cannabis among older persons, and specifically to learn more about older persons who take cannabis for medical reasons and how cannabis impacts their quality of life.
Utilizing national data sets collected by general government agencies made available to researchers, George Wehby, a UI professor of health management, and colleagues Robert Kaestner, a research professor at the University of Chicago Harris School of Public Policy, and Dhaval Dave, a professor of economics at Bentley University have begun a two-year long project to examine data related to the correlation between minimum wage and long-term child health development.

“We have become interested in understanding how the minimum wage acts as an income enhancing policy, with a focus on low income individuals and families and how that may affect children’s health,” Wehby said. “The basic premise is that, for low income workers who earn below or around the minimum wage, increasing the minimum wage if they are working would mean higher income for them and could be linked to changes in their children’s health.”

Wehby noted the change in minimum wage would influence changes in consumption, residential stability, better parental health, less stress, child care services, and the use of health care services.

“But at the same time, there is a group of individuals who would not benefit from the minimum wage and who perhaps may find it harder to find employment about the minimum wage,” Wehby said. “There is still a debate in the literature about what the minimum wage does to labor outcomes—such as employment and earnings. We wanted to go beyond that and examine the effects on children’s health.”

The team acknowledged the fact that the minimum wage may have some adverse effects on some individuals. However, they said they recognized there is controversy among workers who continue to have their jobs, and that there is more evidence in an increase in earning.

William Story, a senior colleague of Wehby’s in the UI College of Public Health, said the influence of social policy on health across the life course is a critical area of research because social policy often reflects the values of society.

“Minimum wage can have a direct impact on a number of social determinants of health—including economic stability, education, neighborhood safety, healthcare access, and availability of social capital—which, in turn, have a persistent relationship with long-term health outcomes,” Story said. “Demonstrating the connections between minimum wage, social determinants of health, and child health will be a tremendous contribution to the health and social policy landscape.”

Studies of Healthcare Delivery and Use

**Mercy DSM**
Mercy Accountable Care Organization LLC/US Department of Health & Human Services, National Institutes of Health
Principal Investigator: Keith Mueller
Co-Investigator: Xi Zhu
Annual Direct Funds: $109,803 | Funding Period: 2015 - 2018

This project focused on assisting Mercy Accountable Care Organization LLC in the development and review of a market performance evaluation.

**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
Annual 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 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.
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-Investigators: Thomas Vaughn, Marcia Ward
Annual Direct Funds: $24,761 | 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.

The Role of Health Centers in Reducing Disparities in Potentially Preventable Hospital-Based Care among Dual Eligibles

US Department of Health & Human Services, National Institutes of Health
Principal Investigator: Brad Wright
Co-Investigator: Fredric Wolinsky
Annual Direct Funds: $276,950 | Funding Period: 2017 - 2021

The goals of this study are to characterize and evaluate the role of Federally Qualified Health Centers in providing primary care that lowers rates of, and reduces racial/ethnic disparities in hospital care among dual-elgibles.

Insurance Coverage Effects on Access to Mental Health Services and Outcomes

US Department of Health & Human Services, National Institutes of Health
Principal Investigator: Dan Shane
Co-Investigator: George Wehby
Annual Direct Funds: $125,000 | Funding Period: 2017 - 2019

The proposed study is identifying the impacts of the Affordable Care Act-driven expansion in private health insurance coverage as well as the Medicaid expansion on multiple measures of mental health, encompassing a broad spectrum of potential mental health effects.

The Impact of Recent Medicaid Expansions on Dental Services

US Department of Health & Human Services, National Institutes of Health
Principal Investigator: George Wehby
Annual Direct Funds: $100,000 | Funding Period: 2018 - 2019

This study examines the effects of the ACA Medicaid expansions on use of dental services among low-income adults using nationally representative data and quasi-experimental designs.
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  
Annual Direct Funds: $188,921 | Funding Period: 2015 - 2018  

The Rural Policy Research Institute (RUPRI) Center for Rural Health Policy Analysis is leading a special effort to research community and health-system characteristics that contribute to building and sustaining a local Culture of Health in rural communities. It explores 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.

**The Future Healthcare Workforce in Iowa: Analysis and Summit**

Iowa Department of Public Health  
Principal Investigator: Keith Mueller  
Annual Direct Funds: $86,785 | Funding Period: 2017 - 2020  

This analysis is gaining a better understanding of efforts to improve and support the healthcare workforce and to develop recommendations for a broader, more strategic healthcare workforce initiative in Iowa.
A new study conducted by Marcia Ward, Professor and Director of the Center for Health Policy and Research, found rural hospitals that use telemedicine to back up their emergency room health care providers not only save money but find it easier to recruit new physicians. Dr. Ward says the results suggest that expanded use of tele-emergency services could play a key role in helping small, rural critical access hospitals maintain their emergency rooms.

“The study finds that expanding options for provider coverage to include telemedicine in some rural emergency departments has noticeable benefits,” says Ward, whose study was published in the December issue of the journal Health Affairs.

“This supports the viability of critical access hospitals at risk of closing and leaving their communities without local emergency care.”

In 2013, a Medicare rule clarification allowed rural hospitals to fulfill their on-site staffing requirements using an advanced practice provider, such as a physician assistant or nurse practitioner, as long as they have remote access to a physician using a telemedicine link. To measure the impact of that rule change, UI researchers analyzed 19 rural hospitals in the Sioux Falls, South Dakota-based Avera Health network.

Rural hospitals that switched to tele-ER back-up saved an average of $117,000 annually in health care provider costs because advanced practice providers receive less compensation than physicians. Rural hospitals in the same network that continued to staff their ER with on-site or on-call physicians saw an average increase of $138,000 in annual provider compensation costs.

In addition, hospitals that switched to tele-ER services found it easier to recruit new physicians because they could offer a better work-life balance, as the doctor would not have to cover an ER shift. The model also gives physicians more downtime, Ward says, reducing burnout and increasing retention.

Dr. Ward conducted the study under the university’s Rural Telehealth Research Center.

Article: https://now.uiowa.edu/2018/12/study-finds-tele-ers-save-money-improve-physician-recruitment-rural-hospitals
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.

**Publications**


Rising KL, Ward MM, Goldwater JC, Bhaglanadh D, Hollander JE. Framework To Advance Oncology-Related Telehealth. Clinical Cancer Informatics - Published Online June 29, 2018


**Partners**

The Rural Telehealth Research Center brings together the expertise of researchers from three major universities, all with experience in rural healthcare services and environments.
Projects underway for 2018-2019

Analyzing Data from the Evidence-Based Telehealth Network Grant Program (EB TNGP) Grantees and Preparing Manuscripts to Further the Evidence Base for Tele-ED

Lead researcher: Marcia M. Ward, PhD
Project funded: September 2018
Anticipated completion date: August 2019

The primary purpose of this project is to analyze data using the revised Tele-Emergency Performance Assessment Reporting Tool (T-PART) from the Evidence-Based Tele-Emergency Network Grant Program (EB TNGP) grantees on all their tele-ED cases and a matched sample of non-tele-ED records to conduct comparative effectiveness analysis to help establish the evidence base for tele-ED.

Launching Data Collection on a Common Set of Measures for the School-Based TNGP Evaluation

Lead researcher: Marcia M. Ward, PhD
Project funded: September 2018
Anticipated completion date: August 2019

The primary purpose of this project is to launch data collection from SB-TNGP grantees using an EXCEL-based data collection tool, to perform regular quality checks and data management activities, and to begin descriptive statistical analysis.

Understanding Trends in Telehealth Use: An All-Payer Analysis in Maine

Lead researcher: Andrew F. Coburn, PhD
Project funded: September 2018
Anticipated completion date: August 2019

This project’s primary purpose is to use Maine’s All-Payer Claims Database (APCD) and key informant interviews to develop a descriptive overview of telehealth use in Maine, examining how telehealth use has changed over time (2008-2017) among rural and urban patients and providers and whether there are discernable patterns in those changes by telehealth modality, payer, provider type, diagnosis, and service.

Establishing a Common Set of Measures for Tele-Behavioral Health and Tele-Substance Abuse

Lead researcher: Marcia M. Ward, PhD
Project funded: September 2018
Anticipated completion date: August 2019

The primary purpose of this project is to establish data collection protocols and tools for use in a cross-grantee evaluation of the Evidence-Based Tele-Behavioral Health Network Program (EB THNP).
## Presentations by CHPR Associates

<table>
<thead>
<tr>
<th>Presenter</th>
<th>Title</th>
<th>Organization</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arora K.</td>
<td>Does Paid Family Leave Reduce Nursing Home Use?</td>
<td>American Geriatrics Society</td>
<td>Orlando, CA.</td>
<td>May 2018</td>
</tr>
<tr>
<td>Kaskie B.</td>
<td>A Clinical Profile Of Older Coloradans Who Use Cannabis.</td>
<td>American Geriatrics Society</td>
<td>Orlando, CA.</td>
<td>May 2018</td>
</tr>
<tr>
<td>Kaskie B.</td>
<td>Emerging Issues Concerning Cannabis And Older Coloradans.</td>
<td>American Geriatrics Society</td>
<td>Orlando, CA.</td>
<td>May 2018</td>
</tr>
<tr>
<td>Kaskie B.</td>
<td>Is The Doctor In? Cannabis, Older Persons And Health Providers.</td>
<td>Gerontological Society Of America</td>
<td>Boston, MA.</td>
<td>November 2018</td>
</tr>
<tr>
<td>Kaskie B.</td>
<td>Older Coloradans Use Of Cannabis: Relaxation And Remedy.</td>
<td>Research Society On Marijuana.</td>
<td>Fort Collins, CO.</td>
<td>July 2018</td>
</tr>
<tr>
<td>Kaskie B.</td>
<td>Public Policy Perspectives About Older Adults Who Use Cannabis.</td>
<td>American Public Health Association</td>
<td>San Diego, CA.</td>
<td>November 2018</td>
</tr>
<tr>
<td>Mackinney AC</td>
<td>Value-Based Care: Will The Promised Transition Come To Alaska?</td>
<td>Ashnha Annual Conference, Girdwood, AK</td>
<td>September 2018</td>
<td></td>
</tr>
<tr>
<td>Mueller KJ</td>
<td>Health Policy Symposium.</td>
<td>Carver College Of Medicine, HDSM Distinction Track</td>
<td>Iowa City, IA.</td>
<td>October 2018</td>
</tr>
<tr>
<td>Mueller KJ</td>
<td>Medicare Policy Facilitating Change In Healthcare Delivery And Finance.</td>
<td>Presentation To The US Senate Finance Committee Staff Washington, DC.</td>
<td>April 2018</td>
<td></td>
</tr>
<tr>
<td>Mueller KJ</td>
<td>Recruiting And Retaining Healthcare Professionals In Iowa.</td>
<td>Iowa Primary Care Association Annual Conference. Des Moines, IA.</td>
<td>October 2018</td>
<td></td>
</tr>
<tr>
<td>Mueller KJ</td>
<td>The Race To Value-Based Payment.</td>
<td>Pennsylvania Rural Health Model Summit. Harrisburg, PA.</td>
<td>April 2018</td>
<td></td>
</tr>
<tr>
<td>Mueller KJ</td>
<td>The Race To Value-Based Payment. RHV Site Visit To The Health Care Collaborative Of Rural Missouri.</td>
<td>Lexington, MO.</td>
<td>September 2018</td>
<td></td>
</tr>
<tr>
<td>Mueller KJ</td>
<td>Zhu X. Rural Health Policy: National Directions.</td>
<td>Iowa Rural Health Association Grinnell, IA.</td>
<td>November 2018</td>
<td></td>
</tr>
<tr>
<td>Ward MM</td>
<td>Telehealth In The Rural Emergency Department: Using Mixed Methods To Explore Benefits. Distinguished Faculty Lecture, College Of Public Health, Iowa City, IA.</td>
<td></td>
<td></td>
<td>August 2018</td>
</tr>
</tbody>
</table>
Wright B. Strategies For Engaging Under-Served Communities. National Network Of Libraries Of Medicine Webinar. Iowa City, IA. May 2018

Wright B. Who's In And Who's Out? Racial And Geographic Disparities In Observation Care. Leonard Davis Institute Research Seminar, University Of Pennsylvania, Philadelphia, PA. December 2018


Wright B. Racial, Geographic, And Gender Disparities In The Use Of Medicare Observation Stays Within Hospitals. Academyhealth Annual Research Meeting, Seattle, WA. June 2018.

Wright B. The Role Of Evidence In Health Reform. 25th National Evidence-Based Practice Conference, Coralville, IA. April 2018.


Zhu X. Using A Taxonomy To Inform Healthcare Improvement In Rural Communities. Iowa Healthcare Collaborative, Des Moines, IA. April 2018.
## Publications by CHPR Associates

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Journal</th>
<th>Year</th>
<th>Pages/Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baloh J, Zhu X, Ward MM.</td>
<td>Types Of Internal Facilitation Activities In Hospitals Implementing Evidence-Based Interventions</td>
<td>Health Care Manage Rev</td>
<td>2018 Jul/Sep;43(3)</td>
<td>229-237</td>
</tr>
<tr>
<td>Barker AR, Nienstedt L, Kemper LM, Mcbride TD, Mueller, KJ.</td>
<td>Health Insurance Marketplaces: Issuer Participation And Premium Trends In Rural Places</td>
<td>RUPRI Rural Policy Brief</td>
<td>2018(3)</td>
<td>1-4</td>
</tr>
<tr>
<td>Cole Brahim M, Wright B, Carey K, Trivedi A.</td>
<td>Health Insurance Coverage And Access To Care For Community Health Center Patients</td>
<td>J Gen Intern Med</td>
<td>2018 Sep;33(9)</td>
<td>1444-1446</td>
</tr>
<tr>
<td>Cole M, Wright B, Wilson I, Galárraga O, Trivedi A.</td>
<td>Medicaid Expansion And Community Health Centers: Care Quality And Service Use Increased For Rural Patients</td>
<td>Health Aff (Millwood)</td>
<td>2018 Jun;37(6)</td>
<td>900-907</td>
</tr>
</tbody>
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<table>
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<th>Title</th>
<th>Authors</th>
<th>Details</th>
</tr>
</thead>
</table>


## Seminar Series Presentations

<table>
<thead>
<tr>
<th>Presenter</th>
<th>Title of Presentation</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaughn T.</td>
<td>Journal Club Discussion</td>
<td>February 2018</td>
</tr>
<tr>
<td>Shane D.</td>
<td>Higher Benefit For Greater Need: Understanding Changes In Mental Well-Being Of Young Adults Following The ACA Dependent Coverage Mandate Using A Quantile Approach</td>
<td>February 2018</td>
</tr>
<tr>
<td>Wright B.</td>
<td>Who’s In And Who’s Out? Racial And Geographic Disparities In Observation Care</td>
<td>March 2018</td>
</tr>
<tr>
<td>Croker A.</td>
<td>A Balm In Gilead: The Expansion Of Medicaid And Disparities In The Proliferation Of Prep And Treatment As Prevention For HIV</td>
<td>March 2018</td>
</tr>
<tr>
<td>Arora K.</td>
<td>Cannabis Use Among Older Adults: Evidence From Colorado</td>
<td>March 2018</td>
</tr>
<tr>
<td>Weigel P. PhD</td>
<td>Professional Development</td>
<td>April 2018</td>
</tr>
<tr>
<td>Lyu W.</td>
<td>Differences In The Impact Of The Medicaid Expansion On Access To Cancer Screening By Health Provider Supply</td>
<td>April 2018</td>
</tr>
<tr>
<td>Mobley E.</td>
<td>Rurality: How Does It Influence Adolescent And Young Adult Cancer Survival And Clinical Trial Enrollment</td>
<td>April 2018</td>
</tr>
<tr>
<td>Nataliansyah M.</td>
<td>Does Caregiving Influence A Caregiver’s Health Behaviors?</td>
<td>May 2018</td>
</tr>
<tr>
<td>Croker A.</td>
<td>Effective Instrumentation And Accurate Estimation: Part 1</td>
<td>August 2018</td>
</tr>
<tr>
<td>Weigel P. PhD</td>
<td>Professional Development</td>
<td>September 2018</td>
</tr>
<tr>
<td>Ullrich F.</td>
<td>Secondary Data Resources And Health Services And Policy Research</td>
<td>September 2018</td>
</tr>
<tr>
<td>Qian H.</td>
<td>The Effects Of State-Level Earned Income Tax Credit On Maternal Health</td>
<td>September 2018</td>
</tr>
<tr>
<td>Vaughn T.</td>
<td>Different Approaches To Diffusion Of Innovations</td>
<td>September 2018</td>
</tr>
<tr>
<td>Huang H.</td>
<td>To Leave Or To Live: Organizational And Policy Factors Associated With The Dropping-Out Of MSSP ACOs</td>
<td>October 2018</td>
</tr>
<tr>
<td>Mueller K.</td>
<td>The Future Of Accountable Care Organizations As Delivery System Reform</td>
<td>October 2018</td>
</tr>
<tr>
<td>Wright B.</td>
<td>Observation Stays: The Evolution Of A Research Agenda</td>
<td>October 2018</td>
</tr>
<tr>
<td>Frisvold D.</td>
<td>The Impact Of The Philadelphia Beverage Tax On Purchases And Consumption By Adults And Children</td>
<td>October 2018</td>
</tr>
<tr>
<td>Bhagianalh D.</td>
<td>Does A Dementia Diagnosis Lead To Healthy Behaviors?</td>
<td>November 2018</td>
</tr>
<tr>
<td>Croker A.</td>
<td>Effective Instrumentation And Accurate Estimation – Part 2</td>
<td>November 2018</td>
</tr>
<tr>
<td>Ugwi P.</td>
<td>The Effects Of The Patient Protection And Affordable Care Act On Children’s Health Coverage</td>
<td>November 2018</td>
</tr>
<tr>
<td>Vakkalanka P.</td>
<td>Psychiatric Emergency Telemedicine Consultation For Patients Presenting With Suicidal Ideation Or Attempt</td>
<td>November 2018</td>
</tr>
<tr>
<td>Merchant K.</td>
<td>What Is All The “Talk” About?</td>
<td>December 2018</td>
</tr>
</tbody>
</table>
The Bonnie J. and Douglas S. Wakefield Award recognizes 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 2018 are Erin Mobley and Wei Lyu. These two students were especially commended for their progress on research and publications.

**Erin Mobley**
Erin’s research interests are focused around health services research related to cancer and policy affecting those with cancer. She is specifically interested in ways to improve outcomes for those with cancer through decisions regarding treatment, access to care, insurance, and other health services-related issues, particularly in the adolescent and young adult population.

**Wei Lyu**
Wei has earned this award for the second year in a row. His current research focuses on understanding how recent national health insurance policy changes have affected US health insurance coverage, health care utilization, and health status, especially in vulnerable and underserved populations. In addition, he is interested in understanding the heterogeneity in the effects of these policies by socioeconomic and demographic factors, macroeconomic conditions, and the supply of healthcare professionals.
Publications by PhD Students


Mobley E, Charlton M, Ward M, Lynch C. Factors Affecting Clinical Trial Enrollment For AYAS With Cancer In A US Population-Based Study. Global Adolescent And Young Adult Cancer Congress 2018 In Sydney, Australia; Oral Presentation And Abstract Publication. April 2018.

Mobley E, Foster K, Terry W. 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. Journal Of Adolescent And Young Adult Oncology. 2018 Jan; 7(5).

Mobley E. Effect Of The Patient Protection And Affordable Care Act’s Dependent Coverage Mandate On Stage At Diagnosis For Rural Young Adults With Lymphoma. Academyhealth Annual Research Meeting 2018 In Seattle, WA; Poster Presentation And Abstract Publication. April 2018.


