UNC
THE CECIL G. SHEPS CENTER
FOR HEALTH SERVICES RESEARCH

ANNUAL REPORT

July 1, 2012 - June 30, 2013

Cecil G. Sheps Center for Health Services Research
University of North Carolina at Chapel Hill

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As in the past, this year's annual report is organized into several sections. Initially, the mission of the Center is discussed, followed by a narrative review of its research, technical assistance, and training activities. The research and technical assistance activities are described by program area, followed by a description of the Center's graduate and postgraduate education activities and the library and informational services available. The next sections summarize the seminars sponsored by the Center followed by a listing of the publications generated by Center investigators. Finally, there are sections on organizational changes, contract and grant proposal success, and sources and amounts of funds supporting Center activities.

MISSION STATEMENT AND ORGANIZATION

The Cecil G. Sheps Center for Health Services Research, one of the nation's oldest and largest health services research centers opened its doors forty-five years ago. It seeks to improve the health of individuals, families, and populations by understanding the problems, issues, and alternatives in the design and delivery of health care services. This is accomplished through an interdisciplinary program of research, consultation, technical assistance, and training that focuses on timely and policy-relevant questions concerning the accessibility, adequacy, organization, cost, and effectiveness of health care services, and the dissemination of this information to policymakers and the general public.

The Center is a separate organizational unit under the Vice Chancellor for Research at UNC Chapel Hill. Oversight responsibility for the Center is vested in a Policy Board whose members include senior faculty and administrators from the five health science schools, as well as representatives of the health services community at large. The director receives assistance in planning and leading the Center's activities from the four deputy directors, one associate director, and from the program directors responsible for areas of research/policy analysis concentration. A copy of the organizational chart for the Center can be found in Appendix A and a listing of the Policy Board members in Appendix B. Center principal investigators have faculty appointments in the following schools and departments:

- School of Medicine (Departments of Family Medicine, Medicine, Pediatrics, Obstetrics and Gynecology, Radiation Oncology, Psychiatry, Social Medicine, and Surgery),
- School of Pharmacy,
- School of Public Health (Departments of Epidemiology, Health Policy and Management, Health Behavior and Maternal and Child Health), and
- School of Social Work.

NARRATIVE REVIEW OF SHEPS CENTER RESEARCH, TECHNICAL ASSISTANCE, AND TRAINING ACTIVITIES

The Sheps Center currently focuses the majority of its research, technical assistance, information dissemination, and educational activities in 11 areas (Aging, Disability, and Long-term Care; Child Health Services; Health Care Economics and Finance; Health Care Organization; Health Disparities; Health Workforce; Primary Care; Medical Practice and Prevention; Mental Health and Substance Abuse Services and Systems Research; Rural Health Research; and Women's Health Services Research), however the Center remains responsive to new issues. The value of conducting studies in each of these areas is assessed continuously, and other areas of potential concentration are explored periodically to ensure that the Center applies its resources as productively as possible to questions of particular importance. In addition, since 1994 the North Carolina Institute of Medicine (NC•IOM) has functioned as a quasi-state organization with staff housed within the Sheps Center. In mid-2013, the Sheps Center established a new program, Health Workforce, directed by Dr Erin Fraher. We will maintain the Program on Primary Care. Also in mid-2013, Dr Dan Jonas assumed leadership of the Program on Medical Practice and Prevention, taking over from Drs Michael Pignone and Russ Harris, who directed the program for about a decade.

For the purposes of this report, we will work with the organization and leadership that was present for most of the 2012-13 year.

The deputy and associate directors meet weekly with the director to discuss Center administration, upcoming grant proposals, and center external relations. Seminar series are open to all staff. A Staff Liaison Committee includes staff from each of the programs and support areas. This committee meets monthly and plans activities to improve Center cohesion and mission. Each of these forums has greatly facilitated the sharing of knowledge and expertise among projects. Each Sheps Center program is briefly described below, with each current component project. Some of the completion dates occurred during the duration of this report, indicating that the project may be in a no-cost extension.

Program on Aging, Disability, and Long-term Care

Phillip D. Sloane, M.D., M.P.H. and Sheryl Zimmerman, Ph.D., Co-Directors

The rapid growth of the nation's older population has increased awareness of the health service needs of older adults, and also made clear the significant demands on families and professionals who deliver health services to this population. Consequently, the primary aim of this program is to improve the well being of older persons with chronic and acute illness, as well as that of their caregivers. The program emphasizes factors that affect functional status and promote self-care, independent living, and quality of life among older adults. In addition, the program embraces a concern for the extent, quality, and availability of long-term care services for persons of any age, and for programs that address the special needs of people who have impairments. Work force issues, assisted living, dementia, end-of-life care, and cognitive and physical impairment are special areas of focus.

Among nursing home residents, as many as 84% have difficulty brushing their teeth, and up to 94% of denture wearers are unable to independently clean their dentures. Despite this documented need, numerous studies have identified mouth care as deficient in nursing homes – in fact, some residents have not had their teeth brushed for as long as a year -- with commonly cited reasons including lack of caregiver time and training and resident resistance to care. This lack of care is especially problematic as evidence shows that poor mouth care increases the risk for aspiration pneumonia, hospitalization, nutritional problems, and even diabetic complications. In sum, mouth care is health care, not grooming.

Program on Aging, Disability, and Long-term Care Co-Directors Philip Sloane, MD, MPH and Sheryl Zimmerman, PhD were awarded funds by the Alzheimer's Association and FutureCare of North Carolina to conduct a research study to develop and test an innovative oral care program in North Carolina nursing homes. The program, *Mouth Care Without a Battle*, was developed and tested among 97 nursing home residents and six certified nursing assistants (CNAs); 8 weeks of the program significantly improved oral hygiene outcomes for residents, and knowledge and efficacy for CNAs. The study outcomes were published in the *Journal of the American Geriatrics Society* (61(7): 1158-1163) and an article of the methods is under review in *The Gerontologist*.

The project produced a four-part training DVD entitled *Mouth Care Without a Battle* that teaches the mouth care and behavioral skills that achieved these positive outcomes. The DVD was distributed free of charge to all 400 licensed nursing homes in North Carolina, and CNAs and licensed nurses who complete the program receive continuing education credits.. The DVD has been purchased by over 525 organizations, including the state of West Virginia, which is using the DVD in a state-wide quality improvement program. The *Mouth Care Without a Battle* program has been translated into a webinar, which has been presented by two national organizations; has been featured in university, state, and national presentations; and is informing the North Carolina state's certified nursing assistant training requirements. Also, the *Mouth Care Without a Battle* website (www.mouthcarewithoutabattle.unc.edu) was launched in March 2013, and has since had nearly 3,000 visitors.

The following research projects were active during the year:

A Feasibility Study to Improve Older Patient-Physician Communication – Participatory and patient-centered interactions between older patients and their physicians directly and positively impact important patient outcomes, such as health status and the use of health care services. Patient activation and other related interventions have been demonstrated to enhance these interactions, but are time consuming and do not replicate to primary care settings

where much older adults receive their care. This study will determine the feasibility of implementing the Electronic Enhancement of Health Assessments in Clinical Encounters (ENHANCE) system in primary care settings. A sample of 60 patients presenting for routine care, who are 50 years of age and older with a self-identified serious chronic illness (e.g., congestive heart failure, chronic lung disease) will be identified and recruited into a feasibility study. Patients will be recruited from four primary care practices, which participate in a primary care research network, and will be selected from counties in central North Carolina over a 9-month period. All practices will receive the intervention (i.e., ENHANCE), consisting of a touchpad personal computer and software that will gather and report patient health-related quality of life at the time of the encounter. Patient encounters will be audio-taped and analyzed using the Roter Interaction Analysis System (RIAS). The evaluation of the intervention will be guided by the RE-AIM framework, using semi-structured interviews of physician and staff members, analyses of RIAS codes, and direct observation of practice sites during the study.

Principal Investigator: Timothy P. Daaleman, D.O., M.P.H.
Primary Funding Source: NIA
Total Project Period: 08/15/09 – 0 7/31/12
Total Funding: Total: $333,742; Direct: $225,531; Indirect: $108,211

Accelerating Change and Transformation in Organizations and Networks (ACTION II) – Note: This is a Master Task submission; there are no specific tasks for this master contract proposal.
The goal of ACTION II is to promote and accelerate the development, implementation, dissemination and sustainability of evidence-based innovation in health care delivery and organization to measurably improve health care in the U.S. In support of this goal, ACTION II will focus on practice-based research to achieve the following four objectives: (1) implementation of a proof of concept, through which a previously untested innovation is tested on a small scale to demonstrate its feasibility for addressing an identified problem; (2) implementation of an innovation or improvement approach to provide information for decision-makers about structural, contextual and process factors that play a critical role in increasing (or reducing) the chances that a proven, evidence-based innovation will actually work in a given setting; (3) spread, or the taking to scale, of one or more proven innovations or delivery system improvements, including the active, wide dissemination of information about what works, accompanied by concrete guidance on how to maximize the likelihood of successful implementation and sustainability; and (4) sustainability, to increase knowledge about the factors that contribute to, or impede, the long term sustainability of innovation.

Principal Investigator: Sheryl Zimmerman, Ph.D.
Funding: Abt Associates, Inc via AHRQ
Total Project Period: 07/01/2010 – 06/30/2015
Total Funding: Total: $0

Diagnosis and Treatment of Infections in Nursing Homes – This project will design, implement, and evaluate a quality improvement program to reduce inappropriate antibiotic prescribing in nursing homes. The project will be conducted in twelve nursing homes in North Carolina. The key outcomes under this study are adherence to prescribing guidelines, rates of antibiotic prescribing, hospitalization for infection, and adverse drug events.

Principal Investigator: Sheryl Zimmerman, Ph.D.
Funding Source: AHRQ via Abt Associates Inc.
Total Project Period: 10/01/09 – 01/29/13
Total Funding: Total: $595,949; Direct: $402,668; Indirect: $193,281

A University-AAA-State Partnership to Understand the Link Between Primary Care Physicians and Aging Service Providers in the Support of Persons with Alzheimer's Disease and Related Disorders (ADRD) – Engaging physicians with ADRD service providers is a challenge. Under a 2008-2010 Innovation Grant, a partnership between the university-based Carolina Alzheimer's Network (CAN), two Area Agencies on Aging, and the NC Division of Aging and Adult Services, recruited and trained 16 primary care physicians, engaged them with ADRD services providers, and generated 75 new ADRD patient and family referrals. To determine whether this project should be continued and replicated, however, more information is needed about this program and its outcomes. In this project, related information will be obtained from 30 primary care physicians and a sample of the family caregivers who provide support to their patients with dementia.

Principal Investigator: Philip Sloane, M.D., M.P.H.
Funding: United States Administration on Aging

Total Project Period: 09/01/10 – 08/31/12 (extended through 08/31/13)
Total Funding: Total: $444,916; Direct: $415,222; Indirect: $29,694

Improving Oral Hygiene Care in Nursing Homes: The Daily Mouth Care (Tooth Brushing) Program – This project will: 1) develop an evidence-based protocol, toolkit, and training materials for improving the mouth care of nursing home residents, with a focus on persons with dementia and physical impairments whose care is difficult to provide; 2) conduct a pre-post trial of the mouth care program in three nursing homes in North Carolina, evaluating the impact of the intervention on gingivitis, plaque index, completeness of oral hygiene care, and resident agitation during care; and 3) disseminate to all North Carolina nursing homes and selected other stakeholders a training DVD on mouth care in nursing homes that provides CEU credit for nurses and nursing assistants.
Principal Investigators: Phillip Sloane, M.D., M.P.H., Sheryl Zimmerman, Ph.D.
Funding: FutureCareNC via NC Dept of Health and Human Services
Total Project Period: 10/1/10-12/31/13
Total Funding: Total: $221,709; Direct: $201,554; Indirect: $20,155

Barriers to Effective Pain Management in Hospice – Despite significant accomplishments in hospice care, many patients continue to experience substantial pain and discomfort in their final days of life. A number of key barriers to effective pain management in hospice have been identified that are psychosocial in nature, including erroneous beliefs about addiction and tolerance, reluctance to report pain for fear of being perceived as weak or drug-seeking, and lack of communication between patients, family caregivers, and providers. To help minimize the prevalence of discomfort during life threatening illness and improve administration of and adherence to pain treatments, researchers have called for systematic strategies to understand and address the concerns of patients and their family caregivers related to pain management. This study will collect related data for a larger project that will examine the efficacy and effectiveness of an intervention to affect barriers to effective pain management in hospice.
Principal Investigator: Sheryl Zimmerman, Ph.D.
Funding: AHRQ
Total Project Period: 03/01/2011 – 09/30/2012
Total Funding: Total: $100,000; Direct: $67,568; Indirect: $32,432

Goals of Care: A Nursing Home Trial of Decision Support for Advanced Dementia – Dementia is a progressive syndrome of decline in cognitive function. For 5 million Americans with dementia, therapies slow progression but do not reverse or cure the disease. Nursing home care is common; 67% of people dying from dementia die in this setting and families act as surrogates in major health care decisions. Shared decision-making about goals of care is the ethical standard for serious illness, yet families report poor quality communication, decision-making and palliative care. Compared with decisions about using or withholding a treatment, the goals of care approach encourages discussion and agreement on the primary goals of medical care, followed by treatment decisions designed to meet agreed upon goals. The study is a cluster randomized, controlled trial to test a decision support intervention for surrogates considering goals of care in advanced dementia. The intervention has two components: an audiovisual decision aid followed by a structured interdisciplinary care plan meeting. Study subjects are 300 nursing home residents with advanced dementia and their surrogates, recruited from 20 sites, to meet these Aims: Aim 1. To test the effect of the Goals of Care intervention compared to usual care, on the quality of communication and decision-making, defined as: a) quality of communication; b) family - health care provider concordance on goals of care; and c) family report of treatment consistent with wishes. Aim 2. To test the effect of the Goals of Care intervention on quality of palliative care, defined as: a) number of palliative care domains addressed in the care plan; b) symptom management; and c) family satisfaction with care for advanced dementia. Aim 3. To test the effect of the Goals of Care intervention on quality of dying, measured as: a) family - health care provider concordance on goals of care, and b) comfort in dying. This research will provide the first empiric test of decision support for the goals of care framework in dementia care. It extends decision support research to surrogates, who make most decisions on behalf of patients with serious and incurable illness. To permit future dissemination, the intervention design is pragmatic and well integrated with nursing home interdisciplinary care.
Principal Investigator: Laura Hanson, M.D., M.P.H.
Funding: National Institute on Aging
Total Project Period: 04/15/11-03/31/16
Total Funding: Total: $2,452,398; Direct: $1,657,025; Indirect: $795,372

Outcomes of Green House Homes Compared to Other Nursing Homes: What Structures and Processes are Associated with Better Outcomes? – The primary aim of this study is to identify the essential components (structures and processes) of care that relate to resident outcomes in various skilled nursing settings, with a special focus on those structures and processes that are reflected in Green House (GH) homes. In addition to examining how outcomes differ by site (i.e., GH homes compared to traditional or high-end culture change nursing homes), we will explore what specific structures (e.g., staff roles, self-managed teams, physical environment features), processes (e.g., time spent in various activities such as assistance with activities of daily living, meals, communications, care planning, socializing with elder), and various combinations of structures and processes, are associated with better outcomes (i.e., avoidable transfers to hospital or emergency department; injurious falls; and pressure ulcer development). Data collection will be in four areas: resident and site characteristics, core processes, and outcomes. Main sources of data include a profile survey, resident Minimum Data Set (M.D.S) 3.0 data, observation of core processes, staff surveys and standardized interviews, and data worksheets completed during on-site visits.

Principal Investigator:	Sheryl Zimmerman, Ph.D.
Funding:	Robert Wood Johnson Foundation
Total Project Period:	07/01/11-06/30/2014
Total Funding:	Total: $196,409; Direct: $175,366; Indirect: $21,043

Reducing Potentially Inappropriate Antibiotic Prescribing by Primary Care Clinicians Working in Long-Term – This supplement extended the period of observation of the intervention in assisted living, to allow for additional data collection and analysis and for the development of materials for training new sites to implement the intervention and disseminate them to appropriate audiences.

Principal Investigator:	Phillip Sloane, M.D., M.P.H.
Funding:	RTI via AHRQ
Total Project Period:	08/01/2011-08/31/2012
Total Funding:	Total: $72,195; Direct: $48,781; Indirect: $23,414

Assessing and Expanding the Knowledge Base on Culture Change in Nursing Homes – Through literature review/environmental scan, case studies, and consultations with the project Technical Advisory Group, this project will assess and expand the knowledge base on culture change in nursing homes (NHs) and explore the potential for NH culture change as a strategy to drive improvement in quality of care and life for individuals living in NHs and in the quality of jobs of those employed by NHs.

Principal Investigator:	Sheryl Zimmerman, Ph.D.
Funding:	US DHHS
Total Project Period:	09/15/2011 – 01/29/2011 (extended through 08/31/13)
Total Funding:	Total: $79,335; Direct: $53,605; Indirect: $25,730

Developing a Toolkit of Person-Centered Care Quality for Assisted Living –The goal of this research project is to develop a toolkit of valid and reliable measures of person-centered care and outcomes for use by assisted living administrators, staff, residents, their families, and others to improve care and outcomes. The project will use a community-based participatory research approach to achieve the following aims: (1) determine the structures, processes, and outcomes of person-centered care, both conceptually and operationally; (2) conduct cognitive testing of the items with AL staff and residents and modify the items as indicated; and (3) test the toolkit of revised items to determine feasibility, conduct exploratory factor analysis, assess reliability and validity, obtain estimates, and determine agreement among stakeholders.

Principal Investigator:	Sheryl Zimmerman, Ph.D.
Funding Source:	National Institute on Aging
Total Project Period:	09/1/2011 – 08/31/2013
Total Funding:	Total: $313,383; Direct: $233,448; Indirect: $79,935

Individually Tailored Lighting System to Improve Sleep in Older Adults - Exposure of the retina to light in the short-wavelength (blue) portion of the spectrum is the primary stimulus causing the human brain to synchronize circadian rhythms to the 24-hour light/dark cycle, resulting in daytime wakefulness and night-time sleep. Depending on its timing, spectrum, and intensity, a light stimulus can phase advance, phase delay, or have little effect on underlying circadian rhythms. Mediators and measures of this system include serum melatonin levels and the core body temperature (CBT), as well as activity/sleep. This proposed study will help translate recent research findings related to this physiological system to practical application in the treatment of persons with primary insomnia and

other sleep disorders. In collaboration with scientists at the Lighting Research Center of Rensselaer Polytechnic Institute (Troy, NY), we will develop and evaluate a low-cost, minimally obtrusive device that delivers individualized light therapy to adults with early-awakening insomnia – the most common type of insomnia in older adults, and a significant problem because of its relationship to daytime sleepiness, use of potentially hazardous sleep medication, and reduced quality of life.

Principal Investigator:	Philip Sloane, M.D., M.P.H.
Funding:	Rensselaer Polytechnic Institute via NIH
Total Project Period:	07/01/2012 – 06/30/2017
Total Funding:	Total: $1,440,330; Direct: $973,196; Indirect: $467,134

Public Reporting on Housing with Support Services for Aged and Disabled Consumers – Housing with supportive services (HSS) is non-institutional housing with essential services (e.g., assistance with activities of daily living, assistance with medication administration) to enable elderly and non-elderly adults with functional and/or cognitive impairments to live as independently as possible in a non-institutional setting. It is known by a variety of names, including residential care/assisted living (RC/AL), small group homes, and Section 8/202 housing; HSS is a type of care in the family of long-term services and supports. All told, 22% of the population aged 85 years and older lives in a setting with supportive services, 7% in community housing with supports, and 15% in long-term care settings. Lack of data in general and lack of standardized and comparable data on HSS providers make it challenging for policy makers and funders to assess the quality of care and for consumers to make an informed choice among HSS options. Public reporting of information related to the quality of care is one option to compile and disseminate information to promote decision-making and potentially improve the quality of care. Public reporting has become commonplace for various health services and sectors, but in terms of HSS it is not uniformly available and some of what is available is misleading and may not be achieving its intended purpose. Consequently, the purpose of this conference is for key stakeholders in public reporting on HSS to advance the science of public reporting on HSS. Specifically, the conference will assess: (a) how far the field has advanced (e.g., what information is available on key issues such as services provided, costs, accessibility, staffing); (b) what has yet to occur to promote successful public reporting (e.g., the optimal strategy with which to obtain information from providers and the use of best practices to assure the information is used by consumers and consumer intermediaries); and (c) how to prioritize next steps related to public reporting. The conference proceedings will disseminate findings related to the content of the available information; its quality (e.g., data quality, computer usability, use by consumers and consumer intermediaries); its source, comprehensiveness, and geographic reach; and recommended next steps. They will be suitable for posting on the websites of AHRQ, CMS, and others. A second product will be a peer-reviewed manuscript for academic audiences, and a third will be an article suitable for HSS providers.
It is expected that this conference will make great strides in promoting the science, availability, and use of public reporting for housing with supportive services for aged and disabled consumers.

Principal Investigator:	Sheryl Zimmerman, Ph.D.
Funding:	Agency for Healthcare Research and Quality
Total Project Period:	08/01/2012 – 09/29/2013
Total Funding:	Total: $49,636

Alzheimer's Medical Advisor A Symptom and Sign Management Toolkit for Caregivers - Most persons with Alzheimer's disease (AD) live at home with informal (usually family) caregivers who must evaluate, manage, and communicate with health care providers about medical symptoms (e.g., pain and shortness of breath) and signs (e.g., fever and agitation). As dementia progresses, susceptibility to comorbid illness increases, communication and decision-making capacity are reduced, and transport to medical facilities becomes increasingly difficult. As a result, informal caregivers need tools that will help them evaluate, make decisions about, and manage symptoms and signs that could represent new or evolving medical illness. The proposed project will develop, field test, refine, evaluate, finalize, and disseminate the Alzheimer's Medical Advisor (AlzMA), a multi-component website that will assist informal caregivers of persons with AD to identify, evaluate, and manage new or increasing symptoms and signs of illness and then, if necessary, clearly and effectively communicate the information to health care providers. This project represents a collaboration of teams from the University of North Carolina at Chapel Hill; the Duke Family Support Program; and Horizon Productions.

Principal Investigator:	Philip Sloane, M.D., M.P.H.
Funding:	National Institute of Nursing Research
Total Project Period:	09/01/2012 – 06/30/2017
Total Funding:	Total: $2,541,922; Direct: $1,788,329; Indirect: $753,593

An RCT of an Educational Video to Improve Nursing Home Care in End/Stage Dementia – Alzheimer's disease afflicts over 5 million Americans and is the 6th leading cause of death in the U.S. To date, advanced dementia research has largely focused on describing the end-of-life experience of patients with this disease. Designing and testing interventions targeting those opportunities is the current research priority for this field. Advance care planning (ACP) is the most consistent modifiable factor associated with better palliative care outcomes in advanced dementia. The opportunity for ACP is exceptional in advanced dementia but often inadequate. Thus, advanced dementia patients often get aggressive interventions that may be inconsistent with preferences and of little clinical benefit. Recent work has particularly underscored the need to avoid unwanted and unnecessary hospitalizations among these patients. Traditional ACP primarily relies on ad hoc verbal descriptions of hypothetical health states and treatments. This approach is limited because complex scenarios are difficult to envision, information from providers is inconsistent, and verbal explanations are hindered by literacy and language barriers. To address these shortcomings, the co-PIs have developed video decision support tools for ACP and shown their efficacy in several randomized controlled trials (RCTs) in out-patient settings. The over-riding goal of the EVINCE (Educational Video to Improve Nursing home Care in End-stage dementia) study is to conduct a cluster RCT of an ACP intervention vs. control among 360 nursing home (NH) residents with advanced dementia (N=180/arm) in 20 matched NHs (10 intervention/10 control). At baseline, proxies in the intervention NHs will view a video ACP decision support tool. Their preferred level of care (comfort care, limited care, life prolonging care, or uncertain) ascertained ~ 10 minutes after the video will be communicated to the primary care team. Proxies in the control NHs will experience usual ACP practices. The Aims are: Aim 1: To compare proxies' preferences for the residents' level of care in the intervention vs. control NHs at baseline (10-minutes post video in intervention NHs), 3, 6, 9 and 12 months. Aim 2: To compare the % of residents with ACP in the intervention vs. control NHs at 3, 6, 9, and 12 months as measured by documented: 1. Decisions to forego hospitalization; 2. Decisions to forego other treatments (tube-feeding, parenteral therapy), and 3. Goal of care discussions; and Aim 3: To compare the % of residents with hospital transfers and other burdensome treatments over 12 months in intervention vs. control NHs. A documented decision to forego hospital transfers by 6 months will be the primary outcome of this RCT. Impact: Better ACP is a key opportunity to improve advance dementia care. Video decision support is a practical, evidence-based, and innovative approach to ACP. If this RCT is successful, this will be one of the first rigorously tested interventions shown to improve outcomes for NH residents with advanced dementia. This work could have significant clinical and policy implications for the millions of Americans dying with this disease by promoting care that is more consistent with their preferences and that is less burdensome and costly.

Principal Investigator:	Laura Hanson, Ph.D.
Funding:	Hebrew Rehabilitation Center
Total Project Period:	9/30/12-8/31/17
Total Funding:	Total: $150,048

Program on Child Health Services Research

Eliana Perrin, M.D., M.P.H., Director

Despite major progress on most child health measures in the 1990s, barriers to child health care services, as well as racial and regional disparities in child health status, persist throughout the United States. To address the challenges these realities present, the Program on Child Health Services focuses on ways to ensure the development, implementation, and evaluation of high quality, evidence-based services for children and women in their childbearing years. The Program on Child Health Services collects and reports data on child health indicators; conducts research to evaluate child health status and programs; and provides technical assistance to policymakers, child health advocates, and health care providers. The Program works with national, regional, state, and local organizations and agencies to improve child health and child health services through research that assures that child health services will be accessible, affordable, comprehensive, coordinated, community-based, and culturally competent.

The following research projects were active during the year:

Evaluation of the NC Healthy Start *Baby Love Plus* Program to Address Racial Disparities in the Eastern, Northeastern, and Triad Regions of North Carolina – This project is a partnership between the Sheps Center's Program on Child Health Services and the NC DHHS Division of Public Health. Since 1996, the Sheps Center team

has worked closely with colleagues at the Division of Public Health in the continued development of the enhanced maternity care coordination and outreach program, as well as identifying special areas of concern to improve perinatal health outcomes in some of the poorest counties of our State. The goal of the program is to reduce disparities in infant mortality through strengthening community capacity and enhanced individual perinatal services in Bertie, Edgecombe, Greene, Martin, Pitt, Tyrrell, and Washington counties (East); Gates, Halifax, Hertford, Nash, and Northampton counties (Northeast); and Forsyth and Guilford counties (Triad). We provide information on birth outcomes, use of perinatal health services, associated costs, and consumer satisfaction using primary and secondary data, including vital records, Medicaid claim data, Health Department administrative records, and a series of community surveys. The combined effort of the Sheps Center and NC Division of Public Health's *Baby Love Plus* Program has resulted in over $14 million in federal awards from the Maternal and Child Bureau, HRSA, DHHS.

Principal Investigators:	Milton Kotelchuck, Ph.D. (97-01) and Julia L. DeClerque, Dr.P.H. (since 01)
Funding Source:	Maternal and Child Health Bureau, U.S. Department of Health and Human Services (subcontract with N.C. Department of Health and Human Services, Women's and Children's Health Section)
Total Project Period #1:	12/97 – 06/01
Total Funding:	Total: $1,021,031; Direct: $928,208; Indirect: $92,822
Total Project Period #2:	07/01 – 06/05
Total Funding:	Total: $947,324; Direct: $861,155; Indirect: $86,169
Total Project Period #3:	07/05 – 05/31/13
Total Funding:	Total: $610,050; Direct: $554,543; Indirect: $55,507
Total Project Period #3:	07/13 – 05/31/14
Total Funding:	Total: $123,777; Direct: $112,161; Indirect: $11,161
Secondary Program Area:	Women's Health Services Research

Evaluation of the NC Healthy Start *Baby Love Plus (all 3 Regions: East, Northeast, Triad)* – The purpose of this research is to continue the ongoing evaluation of the North Carolina Healthy Start Initiative, currently in seven rural Eastern counties, two urban counties (Triad), and five rural Northeastern counties of the State. This infant mortality reduction initiative of the North Carolina Department of Health and Human Services Division of Women's and Children's Health, funded since 1997 by the federal Division of Healthy Start of the Health Resources and Services Administration, US Department of Health and Human Services, enhances the current North Carolina Baby Love Program offered in geographic areas of high minority infant mortality. This initiative was designed to reduce disparities in infant mortality through enhanced community capacity, outreach, and individual case management perinatal services.

Principal Investigator:	Julia L. DeClerque, Dr.P.H.
Funding Source:	North Carolina Department of Health & Human Services
Total Project Period:	6/1/10 – 05/31/11
Total Funding:	Total: $177,674.99; Direct: $161,486.99; Indirect: $16,188
Total Project Period:	6/1/11 – 05/31/12, extended through 09/09/12
Total Funding:	Total: $165,213; Direct: $150,177; Indirect: $15,036

Since its inception, the Child Health Services Program has included projects which were primarily technical assistance in nature, several aimed at improving the planning and evaluation skills of maternal and child health (MCH) leaders at the state and local levels primarily in the Southeast. The following technical assistance project was active this year:

Expansion of the Region IV Network for Data Management & Utilization (RNDMU) Project to Continue to Address Issues Related to the Evaluation of the Impact of Family Planning Services and to Continue to Address Issues of Women's Health in General – In an effort to continue to help states better identify their women's health problems and plan and evaluate services to address these problems, the Cecil G. Sheps Center for Health Services Research has been asked to provide the following services to the DHHS Regional Office and family planning directors in the eight states in DHHS Region IV: 1) hold a workshop in Chapel Hill to continue discussion within the Region related to the use of data to better plan for and evaluate family planning and women's health services; 2) monitor the quality of the RNDMU data collected and clear-up any problems with inconsistent or inappropriate definitions; 3) produce an annual RNDMU databook to contain indicators on women's and infant's

health; 4) update the section of the Sheps Center's Internet site with a copy of the 2009 RNDMU databook; and 5) update the section of the Sheps Center's Internet site which contains the Excel version of all the RNDMU data.

Principal Investigator:	Julia L. DeClerque, Dr.P.H.
Funding Source:	Planned Parenthood of the Greater Miami Valley
Total Project Period:	9/30/09 – 9/29/12
Total Funding:	Total: $185,000; Direct: $171,296; Indirect: $13,704

A Comprehensive Review of State Title V Performance Indicators and Needs Assessments – The federal Title V program is an important legislative provision that acknowledges the needs of the nation's mothers and children and provides the financial mechanism to support the states and other agencies in their efforts to improve maternal and child health. Many problems faced by mothers and children throughout the country are the same across the country, but states also face unique problems and state MCH programs are in the best position to assess the needs of the population they serve, design programs to address these needs, and evaluate success. The Maternal and Children Health Bureau (MCHB) operating within the Health Resources and Services Administration (HRSA) administers the Title V program and works with the states in a partnership that acknowledges the unique abilities and concerns brought to MCH issues by each State. Title V support has evolved over time in terms of both how funds are provided to the states and how the states must account for how they use them to further the cause of women and children they serve. Change from categorical programs to block grants recognizes the needs of individual states to address their own problems. With increased flexibility in use of federal funding for program implementation comes the obligation to account for how those dollars are spent and what impact they have on the lives of the target population. The evolution of accountability has occurred over the past 25 years. A needs assessment, required every five years, was the first accountability measure to be required and mandated performance measures were second, instituted in 1997. Both the states and MCHB have worked well in partnership to implement these accountability measures and to ensure that information reported by the states is of the most value possible and not submitted in a vacuum. To this end, MCHB makes state plans and performance data available to the public via the Title V Information System. In addition, MCHB uses information submitted by the states to examine trends in needs and performance and to inform change within the Bureau to meet their overall goal to assist mothers and children by responding to state MCH needs. This project uses the wealth of information provided by states as part of the needs to examine trends in the priorities states set for addressing maternal and child health needs. Among the information that has been examined are aggregate changes in states' priority needs, those areas where states will focus their efforts in the next 5 years, which are realigned as appropriate during each needs assessment process. Also examined are state performance measures, i.e., those unique measures developed by states in response to their identified priority needs, as well as other performance measures and indicators that are part of MCHB's exemplary performance reporting system. Focus on needs assessment and evaluation of performance has multiple benefits. Understanding the shifting health and health care landscape for mothers and children allows states and the Bureau to plan and use their limited resources wisely. Analysis of trends and individual state performance also can provide valuable information for others as promising practices in individual states are identified.

Principal Investigator:	Victoria Freeman
Funding:	Maternal and Child Health Bureau, HRSA, USDHHS
Total Project Period:	09/28/11 – 09/27/13
Total Funding:	Total: $150,973; Direct: $112,835; Indirect: $38,138

Program on Health Care Economics and Finance

Sandra B. Greene, Dr.P.H. and George "Mark" Holmes, Ph.D., Co-Program Directors

A central concern in the health care system is the rising cost of services and the growing realization that resources are limited. The Sheps Center continues to focus on both the general economics of personal health services as well as the specifics of program and organizational finance. In the former category, the Center's emphasis is on issues of fair and effective distribution of resources, both public and private. In the financial sector, issues of efficiency and productivity in delivery units and targeted programs are examined.

The Atherosclerosis Risk in Communities Study(ARIC), sponsored by the National Heart, Lung, and Blood Institute (NHLBI) is a prospective epidemiologic study being conducted in four U.S. communities (Forsyth County, NC, Jackson, MS, suburban Minneapolis, MN, and Washington County, MD). ARIC is designed to investigate the causes of atherosclerosis, clinical outcomes, and variation in cardiovascular risk factors, medical care, and disease

by race, gender, and location over time. To date, the ARIC project has published over 800 articles in peer-reviewed journals. Starting in November 2010, NHLBI provided funding for an ARIC Cardiovascular Outcomes Research Center (CORC) based at the Sheps Center. The multi-disciplinary research team, led by Sally Stearns, is composed of health economists, cardiologists, internal medicine clinicians, epidemiologists, and faculty in cardiovascular pharmacy practice. ARIC includes two components: a Cohort Component, which has tracked a sample of approximately 16,000 people who were age 45-65 in 1987 through five clinic visits and annual telephone follow-up; and a Community Surveillance Component. Detailed hospital record abstractions (for heart failure, stroke, and coronary heart disease) and Medicare claims data are available for both components. The CORC is currently conducting five studies using the Cohort Component: (1) an overview of the potential for outcomes research in an ongoing epidemiologic study; (2) the association of anger-proneness with increased risk of onset of heart failure; (3) the association between Medicare claims for antihypertensive medications among persons self-reporting hypertension and subsequent cardiovascular outcomes; (4) socio-demographic and health-status factors associated with self-reported medication adherence; and (5) the effects of medication adherence following hospital discharge and subsequent readmission for persons with heart failure.

The following research projects were active during the year:

Cardiovascular Outcomes Research Center for Atherosclerosis Risk in Communities (ARIC) – Since its inception in 1987, the Atherosclerosis Risk in Communities (ARIC) study has provided a unique opportunity to examine factors contributing to the development of atherosclerosis and cardiovascular disease. We propose to expand the ARIC study by establishing a Cardiovascular Outcomes Research Center which will bring together investigators from multiple disciplines to evaluate health services use for persons at increased risk of cardiovascular disease (CVD) and to provide the framework for outcomes research pertaining to CVD-related endpoints. This proposal is focused on research on the quality and outcomes of medical care for heart failure and associated risk factors. The aims of the proposed Cardiovascular Outcomes Research Center are to identify opportunities to: (1) conduct comparative effectiveness research to determine the relative effectiveness of different interventions and strategies for the diagnosis, prevention, and treatment of heart failure; and (2) develop protocols for the evaluation of medical care for heart failure risk factors and heart failure to be implemented as part of the proposed re-examination of the ARIC cohort (Visit 5), extended cohort follow-up, and continued surveillance of the ARIC study communities.

Principal Investigator:	Sally Stearns, Ph.D.
Funding:	National Heart, Lung, and Blood Institute
Total Project Period:	11/1/10-10/31/2016
Total Funding:	Total: $2,503,720; Direct: $1,703,126; Indirect: $800,594

Master Task Order-Advisory and Assistance Services in the Areas of Health Care Financing and Medicare – This master task, MedPAC, order allows UNC and the Sheps Center to compete for an indefinite number of specific tasks for the Medicare Payment Advisory Commission. Tasks are listed below.

Principal Investigator:	Mark Holmes, Ph.D. and Marisa Domino, Ph.D.
Funding:	Medicare Payment Advisory Commission
Total Project Period:	10/01/2011-09/30/2016
Total Funding:	$0

Task Order #1: Expert Panel on Beneficiaries with Serious Mental Illness – This proposed work is to assist MedPAC in convening a panel of 8 to 12 experts at MedPAC. The goal of the panel discussion will be to provide input on the needs of beneficiaries with serious mental illness and how those beneficiaries might be affected by changes in the health care marketplace. Panel participants will include policy analysts, clinicians, and researchers with knowledge of best practices in caring for beneficiaries with serious mental illnesses in inpatient and other settings. Following the panel meeting, the contractor will submit a report to MedPAC.

Principal Investigator:	Marisa Domino, Ph.D.
Funding:	Medicare Payment Advisory Commission
Total Project Period:	04/01/2012-08/07/2012
Total Funding:	Total: $19,247; Direct: $13,005; Indirect: $6,242

Task Order #2: Expert Panel on Payment Policy Improvement for Outpatient Therapy in Medicare – The objective of this project is to help MedPAC staff better understand the data needs, measures, and alternative

payment schemes necessary to improve payment policy for outpatient therapy in Medicare. This objective will be achieved through an expert panel discussion of outpatient therapy providers, researchers, and other stakeholders.

Principal Investigator:	Mark Holmes, Ph.D.
Funding:	Medicare Payment Advisory Commission
Total Project Period:	05/21/2012-08/03/2012
Total Funding:	Total: $11,135; Direct: $7,524; Indirect: $3,611

Program on Health Care Organization Research

Bryan J. Weiner, Ph.D., Program Director

The organization of health services and practice arrangements for health care providers is changing continually. Emphasis is given to understanding the fundamental changes confronting providers and the way in which the organization of medical services at the community level influences the diffusion of prevention and early detection services.

Bryan Weiner and colleagues at the Sheps Center continue their work on **Implementing Systematic Interventions to Close the Discovery-Delivery Gap**, a National Cancer Institute (NCI) funded study now in its sixth year. The study is providing NIH with much-needed information about what it takes to implement and sustain provider based research networks (PBRNs) and what can be expected from PBRNs as a model for disseminating and implementing evidence-based clinical services in community settings. NCI's Community Clinical Oncology Program (CCOP) is a national PBRN in which 400 community-based hospitals and 4000 community-based physicians engage in clinical research in partnership with the NCI and cancer researchers. The CCOP has helped advance scientific knowledge about cancer care and expand access to state-of-the art cancer clinical trials. Our research team has been productive, publishing 18 articles to date. Through in-depth longitudinal case studies, we tested and refined a theory of the organizational factors that influence the start-up and early implementation of community-based provider participation in research (CBPPR) in three newly funded CCOPs. Through longitudinal analysis of SEER-Medicare data, we found that CCOP-affiliated hospitals and physicians more rapidly adopted evidence-based cancer therapies than did non-CCOP-affiliated hospitals and physicians. Using fuzzy-set qualitative comparative analysis, we identified two organizational strategies that consistently led to high treatment trial enrollment among CCOPs in 2010. Through an administrative supplement, we identified the motives and benefits, challenges and facilitators, and business case considerations of CCOP participation. We also developed a method and tool for evaluating the business case. Finally, through a cross-sectional mailed survey, we found that organizational contextual factors (i.e., trainings, support to enroll patients, expectations for enrollment), physician attitudes towards participating in NCI-sponsored clinical trials, and personal characteristics (i.e., age, tenure, medical specialty) will directly and indirectly determine physician enrollment.

The following research projects were active during the year:

Implementing Systematic Interventions to Close the Discovery-Delivery Gap – This project examines the implementation, impact, sustainability, and business case of the NCI's Community Clinical Oncology Program (CCOP), a federally funded national provider-based research network (PBRN) that NIH sees as a model for PBRNs in other disease areas. Specifically, the project is: 1) investigating the *implementation* of the CCOP in community-based practice settings through in-depth case studies of three newly funded CCOP organizations and a survey of all 50 CCOP organizations; 2) examining the *impact* of the CCOP on clinical practice through longitudinal analysis of adoption rates of evidence-based cancer therapies by CCOP-affiliated and non-CCOP-affiliated providers using SEER-Medicare data; 3) assessing the factors affecting *sustainability* of the CCOP in community-based practice settings through a longitudinal analysis of all CCOP organizations active from 1991 through 2003; and 4) investigating the *business case* for CCOP participation by providers through analysis of financial and statistical data and in-depth case studies.

Principal Investigator:	Bryan J. Weiner, Ph.D.
Source:	National Cancer Institute, NIH
Total Project Period:	08/15/07 – 05/31/13
Total Funding:	Total: $491,300; Direct: $336,507; Indirect: $154,793

CCOP Accrual Performance and Survival – Through a longitudinal analysis of all CCOP organizations active from 1991 through 2006 using several secondary data sources, the proposed project will investigate the following research questions: (a) how do organizational factors like CCOP size and geographic reach affect CCOP survival and performance; (b) how do network factors like the number and types of clinical trials available and the number and strength of CCOP ties to research bases affect CCOP survival and performance; and (c) how do local environmental factors like provider competition and market consolidation affect CCOP survival and performance? Design: The proposed project will use a single-group, longitudinal design (1991-2007) with the CCOP serving as the unit of analysis. The sample will include CCOPs that serve an adult population and serve at least one Metropolitan Statistical Area (MSA). Sample size averages 50 CCOPs per year, even with entries and exits from the program during the observation period; thus, statistical analysis will be based on approximately 800 CCOP observation-years. Data Sources: The NCI's Cancer Therapy Evaluation Program (CTEP) clinical trials database will supply data on CCOP organizations' clinical trials accrual. Several secondary data sources will provide data on independent and control variables. These include: (a) CCOP grant progress reports, (b) the American Hospital Association Annual Survey of Hospitals, (c) the Area Resource Files, and (d) the American Medical Association Physician Masterfile. Measures: CCOP accrual performance will be measured as treatment trial accrual and cancer prevention and control trial accrual. Survival will be measured as whether or not the CCOP exited the CCOP program. Primary independent variables will include measures of resource availability (e.g., inputs like clinical trials, study participants, and health professionals), resource predictability (e.g., changes in hospital/provider market structure), and CCOP organization productive capability (e.g., leadership stability, staffing turnover, and maintenance of implementation policies and practices).

Principal Investigator:	Bryan J. Weiner, Ph.D.
Funding Source:	National Cancer Institute
Total Project Period:	9/24/08 – 05/31/12 (extended through 01/31/13)
Total Funding:	Total: $1,994,388; Direct: $1,375,283; Indirect: $619,105

Agency for Healthcare Research and Quality Measure Development Contract (QM.D.C) – This Scope of Work: UNC shall furnish personnel, information and materials as reasonably necessary to successfully accomplish assigned RFTO tasks through contribution of analytic data capacity, measurement expertise, content expertise (e.g., in areas of needed clinical specialties, health services research, health economics, and other areas central to assigned RFTOs), and/or tool development. UNC will assist AIR and our other teamed subcontractors in building infrastructure for AHRQ to support work that connects research and data for purposes of developing and facilitating the use of evidence-based health care quality and efficiency measures. UNC shall work with AIR to determine whether or not to submit proposals to future RFTO bids and will work with AIR on any future work that warrants their areas of expertise. UNC's areas of expertise potentially utilized in RFTO bids include, but may not be limited to: improving the science of quality measurement through the application of rigorous methods of development, psychometric testing, and other analyses; innovating, expanding and integrating the range of data considered in quality measurement development, including capacity for data collection, storage, security, manipulation, and integration; and fostering and facilitating the use and adoption of quality measures developed under the AHRQ QM.D.C's RFTOs, including dissemination and knowledge transfer, communication strategies and materials development, trainings and/or webinars, stakeholder engagement and needs analysis, usability testing, and development of tools and products to meet the needs of end users.

Principal Investigator:	Janet Freburger, Ph.D.
Funding:	American Institutes for Research via AHRQ
Total Project Period:	08/15/2011-08/01/2012
Total Funding:	Total: $0 (Task Order)

Analysis of APTA's National Outcomes Database – APTA CONNECT is a point-of-care, electronic health record system designed specifically for physical therapists. In addition to improving the efficiency and usefulness of physical therapist documentation, APTA CONNECT is a mechanism that is building the first national outcomes database for physical therapy. The APTA has identified a number of "mandated fields" that will be used to create the national outcomes database. The objectives of this project are 1) to analyze data that have been collected in these mandated fields; 2) to provide guidance on risk adjustment models that can be used with these data; 3) to serve in a consultative role on the progression/refinement of the national outcomes database; and 4) to assist with dissemination of findings and development of documentation on use/analysis of the national outcomes database. Descriptive and multivariate analyses will be conducted to examine the data and develop risk adjustment models.

Information gathered from these analyses will inform next steps in the continued development and use of the outcomes database and will provide an assessment of the current state of physical therapy practice, the degree of variation in practice for select diagnoses, and how practice relates to clinical practice guidelines and evidence.

Principal Investigator:	Janet Freburger, Ph.D.
Funding:	American Physical Therapy Association
Total Project Period:	08/15/2011-08/14/2012
Total Funding:	Total: $34,593; Direct: $23,374; Indirect: $11,219

Clinical Trials Matrix Support - The NCI Clinical Trials Advisors to the NCCCP and to the proposed National Cancer Institute Community Oncology Research Program (NCORP) and SAIC-Frederick, Inc. seek support to further develop, refine, and evaluate the NCCCP Clinical Trials Best Practice Matrix tool for broader use in NCI community cancer research program development beyond NCCCP. The NCCCP Clinical Trials Best Practice Matrix aims to improve the quality and performance of the conduct of clinical trials in the community by providing a tool to guide and benchmark NCI research sites as they strive to reach beyond compliance with the International Conference on Harmonization (ICH) Good Clinical Practice (GCP) minimum standards toward exemplary conduct of clinical trials. The tool may also prove useful to other NCI program performance, including the Cancer Centers Program, the Center to Reduce Cancer Health Disparities' Community Networks Program, and the Division of Cancer Prevention's (DCP) Early Detection Research Network, as the tool's capacity lies in the guidance it provides as a process map for continuous quality improvement. When sites plan, implement and evaluate their processes and performance, it results in improved quality of research infrastructure systems and conduct of trials. DCP's support of this effort aligns the Division with the NCI's continued efforts to support efficient, high quality research. The purpose of this procurement is to acquire support from the University of North Carolina at Chapel Hill and Dr. Bryan Weiner to further develop, refine, and evaluate the NCCCP Clinical
Trials Best Practice Matrix Tool for broader use in NCI community cancer research program development beyond NCCCP.

Principal Investigator:	Bryan J. Weiner, Ph.D.
Source:	SAIC-Frederick, Inc.
Total Project Period:	6/5/13-3/31/14
Total Funding:	Total: $51,653; Direct: $33,982; Indirect: $17,671

The Health Care Organization Research Program had the following technical assistance project active this year:

Division of Health Services Regulation Support of Databases – This project supports the Division of Health Services Regulation in the development and use of the hospital discharge database and the ambulatory surgery database. The Sheps Center receives data from the State data processor on a quarterly basis, reviews and edits the data, and builds an annual database. These databases are used to support the Division in health planning and related activities.

Principal Investigator:	Sandra B. Greene, Dr.P.H.
Funding Source:	NC Department of Health and Human Services, Division of Health Services Regulation (formerly Division of Facility Services)
Total Project Period:	11/01/02 – 06/30/12
Total Funding:	Total: $49,898; Direct: $45,362; Indirect: $4,536

Program on Health Disparities

Giselle Corbie-Smith, M.D., M.Sc. and Paul A. Godley, M.D., Ph.D., Program Co-Directors

The Program on Health Disparities seeks to foster multidisciplinary, policy-relevant research to improve the health and healthcare of underserved communities through community and academic partnerships in research, teaching, and dissemination of knowledge. Central to its mission is the development and training of new investigators in health disparities research, strengthening and empowering communities of color to address health disparities, and enhancing the national visibility of health disparities research at the University of North Carolina at Chapel Hill. The Program brings together a diverse and multidisciplinary group of investigators with expertise in quantitative and qualitative research methods to address complex social, environmental and organizational issues affecting underserved populations.

Giselle Corbie-Smith's K 24 Career Award, *Mentoring in community influences on CVD risk*, has provided her with the dedicated time to recruit and mentor some of the brightest young scientists at UNC into healthcare disparities research and to focus on patient-oriented research in cardiovascular disease prevention. Disparities in cardiovascular morbidity and mortality exist for African Americans and individuals residing in counties with 20% or more of the population living below the poverty line. Screening, diagnosis, and treatment for cardiovascular risk factors often come later for the poor (if they seek care at all) because of barriers in access to health care. Delays resulting from these barriers lead to greater morbidity and mortality from cardiovascular risk factors and incident cardiovascular disease. Additional cultural, socioeconomic, and barriers related to social injustice exist in health care in many forms, including financial and insurance status, physician bias, and cultural perspectives on illness and health care. The prevention research study part of this award, Project SHARE (Strengthening Hearts And Reducing risk through Engagement), focuses on the feasibility of training community health workers as patient navigators (PNs) to link residents with multiple cardiovascular (CV) risk factors to local healthcare systems, and the impact of PNs on CV risk factor control. Rather than a focus on one condition, navigators will support access and management of several chronic conditions, thus addressing the reality of multiple co-morbidities in underserved patients. Dr. Corbie-Smith and colleagues developed and delivered an extensive 3-day PN training, emphasizing PN roles and competencies, cultural humility, conflict resolution, patient navigation, motivational interviewing and other related skills. The ten trained PNs are currently recruiting participants and assisting them with access to care and with developing CVD prevention plans. The research design, a two-arm trial, will enable the investigators to assess the feasibility and impact of the PN program in reducing CVD risk.

The following research projects were active during the year:

The UNC-Chapel Hill/Shaw University Comprehensive NCMHD Research Center – With the Goal of eliminating health disparities, the UNC-Shaw NCMHD Research Center aims to be a research incubator that will conduct innovative minority health research among adult African-American populations in North Carolina. This project builds on the previously funded Carolina-Shaw University Partnership for Health Disparity Research. The NCMHD Center will be organized into three cores. The *Administrative Core* enhances the comprehensive research center structure developed during the initial Project EXPORT grant period through which the partnership between UNC and Shaw University implements research activities, pilot projects, and community engagement efforts. The *Research Core* leverages the recently enhanced research infrastructure at Shaw University and the existing research resources by managing three-component research projects and seven pilot projects in an effort to foster research leading to measurable improvements in health disparities. The *Community Engagement Core* supports and conducts innovative research activities involving the DC2 church network established in the initial grant. This core seeks to know and understand better the components of black churches organizational readiness to engage in research, in particular the kinds of research that are effective for 1) engaging clergy, laity, and faculty in disseminating evidence based interventions and 2) engaging African-American communities and individuals as active participants in the research process.

Principal Investigator:	Paul A. Godley, M.D., Ph.D.
Funding Source:	National Center for Minority Health and Health Disparities (NCMHD), NIH
Total Project Period:	09/30/07 – 05/31/12 (extended through 05/31/13)
Total Funding:	Total: $6,828,533; Direct: $5,512,464; Indirect: $1,316,069

A Participatory Intervention to Reduce HIV/STIs in African American Rural Youth-Partnership Supplement – This grant provides supplemental funding under the American Recovery and Reinvestment Act of 2009 (ARRA) to R24M.D.001671 Project GRACE CBPR grant to support innovative scientific partnerships with community-based and faith-based health organizations. The grant enables us to enhance the evaluation plan of our HIV prevention intervention by providing a health intervention to the comparison communities, and to expand community partnerships via subcontracts to two community-based and one faith-based health organization serving the comparison communities. This enables us to work with local health organizations who can best bridge science to practice through their direct connection to health disparity populations. These funds not only enhance Project GRACE, but also create more jobs in the communities. This grant helps those hit the hardest with the current recession, strengthens and broadens scientific partnerships with community-based and faith-based health organizations, and invests in long term improvements in the community by reducing health disparities and improving socioeconomic conditions that cause health disparities.

Principal Investigator:	Giselle Corbie-Smith, M.D., M.Sc.

Primary Funding Source: National Center for Minority Health and Health Disparities (NCMHD)
Total Project Period: 9/1/09 – 2/28/13 (extended through 2/28/14)
Total Funding: Total: $600,000; Direct: $491,145; Indirect: $108,855

Mentoring in community influences on CVD risk – The specific aims for the new research to be supported through this K24 Midcareer Investigator award include: 1) Determine the feasibility of training a current cohort of community health advisors as navigators to link residents with multiple cardiovascular risk factors to local healthcare systems; 2) Determine the impact of health navigators on cardiovascular risk factor control (HgbA1C, physical activity, BP control, smoking) and access to care for community members at increased risk for cardiovascular disease; 3) Identify community and social factors that influence cardiovascular risk factor control and outcomes. This two-arm trial will investigate the role of navigators on cardiovascular outcomes in community based outreach programs to improve access and utilization of medical services. Two to three navigators at each of the four sites will be utilized. Patients will be randomized to either a navigator intervention or to usual patient management practices, with measurement at baseline and six months. This study targets a disease condition and population of significant importance — CVD risk factor prevention in rural African Americans — and extends an existing effective model in several important ways. This study situates the navigator and patient within the community (rather than the healthcare system) thus increasing the cultural relevance of the intervention. Rather than a focus on one condition, navigators will support access and management of several chronic conditions, thus addressing the reality of multiple co-morbidities in underserved patients. Lastly, augmenting patient data with community variables allows a comprehensive analysis of external influence on cardiovascular disease prevention and healthcare utilization.
Principal Investigator: Giselle Corbie-Smith, M.D., M.Sc.
Primary Funding Source: National Heart Lung and Blood Institute
Total Project Period: 12/01/2010 – 07/31/2015
Total Funding: Total: $952,716; Direct: $886,793; Indirect: $65,923

Lung Cancer Surgery: Decisions Against Life Saving Care – The Intervention Center – This American Cancer Society sponsored study is designed to use a health literacy and culturally appropriate communication intervention for patients and electronic data tools for providers to optimize surgical treatment for early stage lung cancer for all patients and to reduce the surgical gap between African-American and white lung cancer patients. Currently, more minority patients fail to undergo potentially life-saving surgery for lung cancer. The reasons appear to be largely related to poor communication between patients and health care providers. This multi-site study will attempt to determine whether a brief intervention will reduce that disparity.
Principal Investigator: Samuel Cykert, M.D.
Primary Funding Source: American Cancer Society
Total Project Period: 7/1/11 – 6/30/16
Total Funding: Total: $600,000; Direct: $491,145; Indirect: $108,855

Developing Topic Briefs for Addressing Health and Health Care Disparities Research Priority Area – The University of North Carolina developed twelve (12) briefs on issues pertaining to health disparities research. The objective of each brief was to provide advisory panelists (i.e. patients, stakeholders, and scientists) with clear, concise background information about each issue to facilitate their ability to discuss the merits of each topic as a potential PCORI funding announcement. The advisory panels, based on their discussion, help prioritize topics and rank-order the 12 issues on the basis for their recommendations. The topic briefs were used as a tool to spur discussion within PCORI advisory panels.
Principal Investigator: Mark Holmes, Ph.D.
Funding: PCORI
Total Project Period: 03/01/13-04/30/14
Total Funding: Total: $96,716; Direct: $69,083; Indirect: $27,633

Program on Health Professions and Primary Care

Donald E. Pathman, M.D., M.P.H. Program Director

An ample supply of health professionals and primary care services are the fundamental building blocks of any health care system. Historically, much of the Sheps Center's research in primary care has addressed the access, personnel,

organization, quality, and cost issues that pertain to health services delivery, especially in rural areas. Current research efforts in this program include addressing issues of recruitment and retention of health care practitioners in rural practice, as well as the projection of need and demand for health professional personnel.

The following research projects were active during the year:

Primary Care-Practice Based Research Network (PBRN) – This is a master task order contract that brings together five North Carolina-based PBRNs, three based at UNC-CH, one based at Duke University, and one based at Carolinas HealthCare System. This contract places UNC on a "short list" for contract work from AHRQ over the next 3-5 years, and multiple research projects will result. [This is the first North Carolina Network (NCN) Consortium project.] Projects from the master task order are listed in both the Program on Health Professions and Primary Care and the Program on Medical Practice and Prevention.

Principal Investigator:	Philip D. Sloane, M.D., M.P.H.
Funding Source:	Agency for HealthCare Policy and Research (AHRQ)
Total Project Period:	01/29/07 – 08/23/12
Total Funding:	Total: $22,507; Direct: $17,863; Indirect: $4,644
Secondary Program Area:	Medical Practice and Prevention

American College of Surgeons (ACS) Institute for Health Policy Research – The Institute is a consortium of the American College of Surgeons and the Cecil G. Sheps Center for Health Services Research. It will provide expert advice, data analysis, and original research to the ACS. The goal of this project is to create a data driven, knowledge based, scholarly assessment of the role of surgery and surgical services in the evolving health care environment. A data system will be developed that regularly collects, analyzes and reports on the state of the surgical profession and the surgical workforce in the United States and, where appropriate, other nations. Annually, the Institute will summarize and report on trends in the profession and practice of surgery and the surgical workforce at the international, national, state, and regional levels.

Director:	George F. Sheldon, M.D., F.A.C.S.
Administrative Director:	Thomas C. Ricketts, III, M.P.H., Ph.D.
Funding Source:	American College of Surgeons
Total Project Period:	03/08 – 12/31/12
Total Funding:	Total: $1,893,633; Direct: $1,456,641; Indirect: $436,992

North Carolina Healthcare Quality Alliance Contract – The North Carolina Healthcare Quality Alliance (NCHQA) is a collaboration of leaders in the delivery of healthcare in North Carolina. NCHQA is developing quality measures for the treatment of chronic diseases, recruiting primary care practices to adopt these measures, and providing training and support to practices for improving quality of care, including support for implementing electronic medical records systems compliant with federal guidelines. NCHQA currently relies on contracts with outside organizations, including UNC-CH, for staff to support its work. Activities under this contract will be of a statewide nature and involve collaborating and working with multiple external entities. The contractor will be responsible for providing the following services to NCHQA: 1. Management and Planning; 2. Financial; 3. Data Collection, Analysis and Presentation

Principal Investigator:	Warren Newton, M.D., M.P.H.
Funding:	North Carolina Healthcare Quality Alliance
Total Project Period:	07/01/2010 – 06/30/2013 extended through 08/31/2013)
Total Funding:	Total: $267,573; Direct: $267,446; Indirect: $0

Transforming Primary Care Practice in North Carolina – The Patient-Centered Medical Home (PCMH) model involves complete primary care practice redesign with the ultimate goal to improve the quality of patient care and reduce cost. Detailed information on the best methods of practice transformation is needed to help the growing number of practices as they plan to go through this process. The overall objective of this study is to evaluate the adoption and process of transformational change in primary care practices belonging to the North Carolina Improving Performance in Practice program (NC IPIP). examine how specific components of the change relate to key health outcomes and explore environmental, organizational and financial conditions that are conducive to transformational change. The aims of this study are to 1) confirm the transformational change process that has occurred within 40 selected practices in the NC IPIP, 2) evaluate which components of change are most linked with improvement in the quality care indicators for diabetes and asthma, 3) for a subset of 12 practices that evidence

varying degrees of success in implementing transformational change, utilize quantitative and qualitative methods to obtain a richer understanding of the change process, examine the effect of environmental conditions, organizational characteristics and financial resources on the change process and describe the costs involved in transformational change at the practice level, and 4) provide a set of recommendations that can be applied at the individual practice level and at the health care organization level to assist in the PCMH transformation process. The ultimate goal and the significance of this study is to describe the transformation process and arrive at a set of implementable recommendations that can be shared broadly to assist individual practices and health care organizations moving toward the PCMH model.

Principal Investigator:	Katrina Donahue, M.D., M.P.H.
Funding	AHRQ via subcontract with the University of Michigan
Total Project Period:	8/1/10-7/31/13
Total Funding:	Total: $599,997; Direct: $407,596; Indirect: $192,401

North Carolina IMPaCT: Advancing and Spreading Primary Care Transformation – For the IMPaCT project, we will enhance our current efforts by conducting a regional leadership development program that will enhance the effectiveness of the regional medical and quality improvement leaders. We will also enhance our current patient-centered medical home change package to included focused attention on the role of primary care in transitions between care settings. In addition to several ongoing evaluations in the state, we will evaluate the rate of improvement in performance, utilization, and cost of care by duration in CCNC and participation in NCAHEC improvement networks. Lastly, a major aspect of this proposal is to disseminate the NC primary care practice support model so that other states can take advantage of our experience and lessons learned. We will work with the National Academy for State Health Policy to disseminate tools and experiences broadly through issue briefs, detailed descriptions of the NC programs, and national webinars and conferences. We will also work intensively with 3 states to help them implement their own multi-sector primary care support efforts.

Principal Investigator:	Darren Dewalt, M.D.
Funding:	AHRQ
Total Project Period:	09/01/2011 – 09/29/2013
Total Funding:	Total: $999,961; Direct: $529,666; Indirect: $254,239

Assessing the Workforce Needs of Patient Centered Medical Homes in North Carolina – This group of leaders will draw on the nationally recognized health workforce data, the analytic capabilities of the North Carolina Health Professions Data System (HPDS) and the expertise of health workforce researchers and policy experts from the University of North Carolina's Cecil G. Sheps Center for Health Services Research to: 1. assess the range, number and activities of professionals needed to staff the full scope of services coordinated by patient centered medical homes (PCMHs); 2. draw together actionable information on the State's current workforce size, adequacy, growth trends and future needs for health professionals serving on the patient centered medical home team; 3. assess the adequacy of the number of extant training positions, as well as the workforce development needs of the workforce already practicing in PCMHs; 4. identify which health care services, such as patient education and case management, might be undertaken by disciplines with various skill mixes; 5. Assess the potential for new roles-such as the community health worker-that would enhance the functioning of the patient centered medical home in NC.

Principal Investigator:	Erin Fraher, Ph.D.
Funding:	North Carolina Dept of Commerce via HRSA
Total Project Period:	11/18/2010 – 09/29/2012
Total Funding:	Total: $144,594; Direct: $92,781; Indirect: $44,534

Since its inception, the Program on Health Professions and Primary Care has been involved in technical assistance activities. There are two technical assistance projects active this year:

North Carolina Health Professions Data System – One of the most comprehensive and continuously maintained state-level data systems available to track the supply and distribution of health professionals in the nation, this up-to-date inventory of all licensed health professionals in the State has been used continuously for over 30 years for planning and evaluation of health professions distribution. Each year, the Sheps Center has produced an annual publication entitled *A Special Report on Health Care Resources in North Carolina: North Carolina Health Professions Data Book*. In recent years a companion publication, *Health Professions Supply by County Pocket Guide*, has been released in tandem with the annual databook. These publications are widely used by state

policymakers, researchers, media, and professionals in the health care industry as the official source of health professions statistics in North Carolina.

Project Director:	Erin P. Fraher, M.P.P., Ph.D.
Funding Source:	NC Area Health Education Centers Program and UNC-CH Office of the Provost (Health Affairs)
Total Program Period:	10/74 – on-going
Funding Fiscal Year 11-12:	Total: $165,341; Direct: $165,341; Indirect: $0
Type:	Technical Assistance

An Open Source Model for Projecting Physician Shortages in the United States – The question of whether the United States is facing a physician shortage is a hotly contested topic. Some projections have estimated a shortfall of between 85,000-200,000 physicians by 2020 but other analysts have suggested that supply is not the issue, rather it is the distribution of physicians both geographically and between specialties that is most problematic. This project proposes to develop an open source projection model that can be used by medical and policy leaders to assess whether current and future physician supplies will meet population health care needs. The model will be intuitive, easy to use, and incorporate numerous parameters that can be adjusted under a variety of scenarios to forecast the supply and demand for physician services at the county, state and national levels. It will accommodate modeling for a wide variety of scenarios including (but not limited to) variations in: rate of growth in demand for care due to newly emerging diseases; the aging population; medicine's ability to treat more diseases; expanding health insurance coverage; rate of medical school expansions; rate of decrease in physician work hours with the growing number of women in medicine and changing lifestyle expectations among young physicians; effects of new models of care and changing physician employment arrangements; adoption rates of information technologies; rates at which selected roles shift from physicians to other health care discipline as well as role shifts across specialties; and the effect of physicians' responses to various incentives designed to influence their specialty, geographic location, practice type and clinical practice choices. Our model will build on and update previous models by accounting for the many forces now starting to affect the supply and demand for physicians, by employing more current data and by incorporating clinical and practice-level perspectives. We will not simply generate a static model that, like past models, is closely held as a proprietary product and therefore does not become widely understood, accepted or used. Instead, we propose to create an open-source model to be posted on-line, with wide use encouraged. To promote its acceptance and use, the model will be informed by input from an expert advisory board of clinician leaders from a variety of disciplines and specialties. The model will be transparent and dynamic to allow it to fit as wide a range of future scenarios as possible, so it can be used by practicing physicians in leadership roles in their states and communities, the Physicians Foundation, state medical societies, national and state specialty society groups, public health officials, policy makers and health workforce experts to better understand and debate the effect that different data sources, workforce assumptions and policies will have on physician workforce estimates. Such a model will create a sustainable capacity for the Physicians Foundation to engage with other stakeholders to identify interventions needed to promote an appropriately sized and constituted physician workforce. Further, the model will be designed so it can be easily updated to incorporate the evolving forces that will be affecting the supply and demand for physician services in the future. Final products will include the web-based model accessible to the public via the internet, a user guide, a fact sheet and a final report. The model and findings will be disseminated through presentations at professional conferences, manuscripts, a policy brief and a final report.

Principal Investigator:	Erin Fraher, PhD
Funding:	The Physicians Foundation
Total Project Period:	07/01/11-06/30/13 (extended through 12/31/13)
Total Funding:	Total: $749,726; Direct: $651,936; Indirect: $97,790

NHSC Site Self-Assessment of Recruitment and Retention Needs Project – Coordinate activities and timelines with the Bureau of Clinician Recruitment and Service (BCRS) to finalize tasks for the self-assessment study. • Complete self-assessment survey for approximately 7,000 NHSC sites to determine capacity and technical assistance needs. • Administer the self-assessment electronically, analyze the data, and submit the final report with recommendations for a multi-year technical assistance strategy for the NHSC. • Prepare Quarterly Reports to submit to the NRHA.

Principal Investigator:	Donald Pathman, MD
Funding:	National Rural Health Association
Total Project Period:	04/01/12-08/31/13
Total Funding:	Total: $70,000; Direct: $47,297; Indirect: $22,703

Multi-State/NHSC Retention Collaborative & Phase I Practice Sights Project – Staff of the Sheps Center will lead the design and building of a data system that will routinely gather data from clinicians serving in loan repayment and similar programs in 11 states. These programs are operated by the National Health Service Corps, by states and by the two together. This data system will regularly query clinicians as they serve two to five year contracts to these programs, and query administrators in the practices where they serve. Sheps staff will design standard reports that participating states can produce whenever needed that summarizes the information that their clinicians-in-service have provided. The goal of the Collaborative and this project is to provide the information that states and programs need to support clinicians as they serve loan repayment contracts in needy communities to increase chances that they will remain in their service sites after their contracted service terms are completed. Sheps staff will also assist the participating states develop their joint efforts into an ongoing quality collaborative.

Principal Investigator:	Donald Pathman, MD, MPH
Funding:	NC Foundation of Advance Health Programs
Total Project Period:	12/01/12-10/31/13
Total Funding:	Total: $164,808; Direct: $149,825; Indirect: $14,983

The Future of Nursing: Campaign for Action Research Manager – On October 2010, the Institute of Medicine (IOM) released The Future of Nursing: Leading Change Advancing Health, a landmark, evidence-based report that showcases how nurses can contribute to a more effective and efficient health system. The report provides a blueprint to transform nursing and the delivery of health care in the United States. The Robert Wood Johnson Foundation (RWJF), in collaboration with AARP and the AARP Foundation, launched in November 2010 The Future of Nursing: Campaign for Action (CFA), a national campaign that seeks to advance comprehensive health care change by fully utilizing the expertise and experience of all nurses. The CFA is working to: strengthen nurse education and training; enable nurses to practice to the full extent of their education and training; advance interprofessional collaboration to ensure coordinated and improved patient care; expand leadership ranks to amplify nurses' voices on management teams, in boardrooms and during policy debates; and improve health care workforce data collection to better assess and project workforce requirements.

Principal Investigator:	Erin Fraher, Ph.D.
Funding:	Robert Wood Johnson Foundation
Total Project Period:	04/15/12-04/14/13
Total Funding:	Total: $50,000; Direct: $44,643; Indirect: $5,357

Program on Medical Practice and Prevention

Russell Harris, M.D., M.P.H. and Michael P. Pignone, M.D., M.P.H., Program Co-Directors

Variations in the practice of medicine have received national scrutiny because of their considerable social, economic and quality of care implications. The Center collaborates with practicing physicians in North Carolina and across the United States to explore these variations and their implications for health care outcomes. Work with the Agency for Healthcare Research and Quality (AHRQ) has continued and expanded over the past decade, with continuing investigator initiated awards but, most prominently, rapid growth in contract work. Initiated in October 1997, AHRQ funded the Research Triangle Institute (RTI) and the University of North Carolina at Chapel Hill to become one of 12 Evidence-Based Practice Centers (EPCs) nationally. In September 2012, AHRQ awarded the 4th AHRQ master task order contract to provide a variety of services and products to support the development of new scientific knowledge through research on the outcomes of healthcare items and services. Dr Dan Jonas assumed the co-director duties from Dr Carey. The activities below reflect mostly EPC III projects, many funded by ARRA . Activities performed by the DEcIDE (Developing Evidence to Inform Decisions about Effectiveness) Network reflect the general principle that clinicians and patients should have the best available evidence upon which to make choices in health care items and services. Hence, the network rapidly develops scientific evidence and new analytic tools to assist healthcare providers, patients, and policy makers with making informed decisions about the comparative effectiveness, appropriateness, safety, and outcomes of healthcare items and services, particularly prescription medications and medical devices.

The following research projects were active during the year:

EPC III - Comparative Analysis of Selected Frameworks – The RTI/UNC-CH Evidence-based Practice Center will develop the project protocol, set criteria for and conduct a comparative analysis of selected frameworks and lead a group of technical experts in an effort to prioritize contextual factors.

Principal Investigator:	Timothy S. Carey, M.D., M.P.H./Bryan Weiner, Ph.D.
Funding:	RTI via AHRQ
Total Project Period:	01/01/2012-07/31/12 (extended through 01/31/14)
Total Funding:	Total: $50,248; Direct: $33,952; Indirect: $16,296

EPC III: Genomic Testing for Risk of Recurrent Cancer - UNC personnel at the RTI-UNC Evidence-based Practice Center (EPC) will collaborate with investigators at RTI to: 1) conduct a systematic review of available literature for evidence that testing of molecular markers of the risk of tumor recurrence, used separately or in combination with 'standard' indicators of risk recurrence, improves predictions of tumor recurrence and leads to changes in physician decisions about patient treatment and to improved patient outcomes, and 2) produce an organized report of the findings of the systematic review, that presents available evidence for the identified key questions.

Principal Investigator:	Timothy S Carey, MD, MPH/Daniel Jonas, PhD
Funding:	AHRQ via RTI
Total Project Period:	10/25/12-01/13/14
Total Funding:	Total: $168,620; Indirect: $110,934; Direct: $57,686

Developing and Assessing Contextual Frameworks for Research on Implementation of Complex System Interventions - The RTI/UNC-CH Evidence-based Practice Center will work with the Agency for Healthcare Research and Quality and a technical expert panel (TEP) to (1) assess methods used to adapt a consolidated framework for implementation research (CFIR) to patient-centered medical home (PCMH) and process redesign (PR) and (2) assess the usability of the modified frameworks for PCMH and PR implementation research. We will use Information from these efforts along with findings from a literature search and review and input from a second TEP to adapt the CFIR to a third, to be determined, complex health system intervention. The final product will be a peer-reviewed methods paper.

Principal Investigator:	Timothy S Carey, MD, MPH
Funding:	Research Triangle Institute (RTI International) via AHRQ
Total Project Period:	08/28/2012-08/31/2013
Total Funding:	Total: $95,553; Direct: $62,864; Indirect: $32,689

Comprehensive EPC Comparative Effectiveness Reviews for Effective Health Care – The RTI-UNC Evidence-based Practice Center (EPC) will build on existing work of the EPC program within the context of the Agency for Healthcare Research and Quality's Effective Health Care (EHC) program to expand the scope and delineation of a comprehensive approach to systematic review for evidence synthesis. The ultimate goal of EPC work is to present the "state of the science" on a given topic in a manner that can be directly applied to decisions made by users of health care information. These users include clinicians, patients and caregivers, policy-makers, funders and payers, and may be individuals or their related organizations. This work focuses on a comprehensive approach to comparative effectiveness review (CER) and evidence synthesis through an expanded scope of work with three major work components: 1.) Develop and refine topics for CERs that are informative to stakeholder decisional needs; 2.) Conduct CERs with systematic and transparent methods; 3.) Identify and explicate future research needs that are important to answering real-world healthcare decisions. The RTI-UNC EPC will focus on mental health and substance abuse topics for this work.

EPC ARRA Activities October 2009 – October 2012

Future Research Needs Reports

1. Research Needs Pilot Project (Integration of Mental Health/Substance Abuse and Primary Care)
2. Future Research Needs: Comparative Effectiveness of 1st and 2nd Generation Antipsychotics in Children and Young Adults
3. Future Research Needs: Attention Deficit Hyperactivity Disorder (ADHD)
4. Identifying Research Needs for Improving Health Care (White Paper Identifying Gaps)
5. Future Research Needs: Methods Workgroup 3 – Study Designs
6. Research Needs Methods Project (Assessing the Impact of AHRQ Research Needs Documents)
7. Research Needs Methods Project (Developing the software used for prioritization of future research needs)

Topic Development

1. Compare Effectiveness of Interventions addressing Concomitant Mental health on Primary Chronic Illness Outcomes
2. Issues Exploration Forum
3. Criminal Justice
4. Post-Traumatic Stress Disorder
5. IEF Morbidity and Mortality
6. Pharmacological Interventions for Alcohol-Use Disorders

Topic Refinement

1. Foster and adoptive parenting
2. Screening, Behavioral Counseling, and Pharmacologic Interventions in Primary Care to Reduce Alcohol Misuse
3. Compare Effectiveness of Interventions addressing Concomitant Mental health on Primary Chronic Illness Outcomes
4. Comparisons for Long Term Care Settings for Patients with Dementia
5. Psychological and Pharmacological Treatments for Adults with PTSD
6. PTSD Treatment in Children
7. Pharmacological Interventions for Alcohol-Use Disorders

Comparative Effectiveness Reviews

1. Comparisons for Long Term Care Settings for People with Dementia
2. Screening, Behavioral Counseling Interventions, and Referral in Primary Care to Reduce Alcohol Misuse
3. Effectiveness of Interventions Addressing Concomitant Mental Health and Chronic Medical Conditions in the Primary Care Setting
4. Child Maltreatment
5. Interventions with Children Exposed to Trauma
6. Psychological and Pharmacological Treatments for Adults with Posttraumatic Stress Disorder
7. Prevention of Post-traumatic Stress Disorder

Other

1. Capstone Paper
2. Overall Planning and Development

Principal Investigator:	Daniel Jonas, M.D., M.P.H.
Funding Source:	RTI via AHRQ
Total Project Period:	09/25/09 – 10/25/12
Total Funding:	Total:$3,000,000; Direct $2,027,027; Indirect $972,973

Drug Effectiveness Review Project (DERP) – Utilizing the infrastructure of the RTI-UNC EPC, this research aims to summarize the available evidence comparing the efficacy, effectiveness, and harms of drugs in many widely used drug classes. DERP is a collaboration of public entities (including the OHSU Center for Evidence-based Policy and the Oregon Evidence-based Practice Center) who have joined together to produce systematic, evidence-based reviews, and to apply the findings to inform public policy and related activities in local settings. The RTI-UNC EPC has produced reviews on antidepressants, asthma medications, targeted immune modulators, inhaled corticosteroids, and constipation medications.

Principal Investigator:	Daniel Jonas, M.D., M.P.H. (Carey PI 2005-2007)
Funding Source:	Oregon Health & Science University (OHSU)
Total Project Period:	1/1/04 – 6/30/13 (extended through6/30/14)
Total Funding:	Total: $2,061,440; Direct: $1,916,150; Indirect: $145,290

Non-Financial Conflict of Interest Policies (EHC III Program Editorial Review) – Participate in workgroup discussions, prepare draft and final guidance. Federal and Agency for Healthcare Research and Quality (AHRQ) policies regarding financial conflict of interest have recently been revised. Currently, the AHRQ policy for non-financial conflict of interest within their Effective Health Care (EHC) program is unclear. The RTI-UNC EPC will assist AHRQ in review of a selection of national and international non-financial conflict of interest policies that pertain to systematic review. The characteristics of these policies will be abstracted.

Principal Investigator:	Timothy S. Carey, M.D., M.P.H.
Funding:	Research Triangle Institute, NC
COI Work Group -	
Total Project Period:	10/01/2011-07/30/2012

Total Funding: Total: $5,527; Direct: $3,735; Indirect: $1,792

Development and Application of Conceptual Frameworks for Patient-Centered Medical Homes and Process Redesign – To assess the utility of an integrative framework for implementation research to two system change interventions of importance to AHRQ work: 1) Patient Centered Medical Home 2) Process Redesign for reduction of waste and enhancement of quality and safety and see how a modified version of the framework could be applied to these two areas. EPC team will apply and refine the CFIR to identify Conceptual factors and implementation processes that should be examined in research on how, why, and where the selected interventions succeeded in or failed to achieve desired outcomes.

Principal Investigator: Timothy S. Carey, M.D., M.P.H.
Funding: RTI via AHRQ
Total Project Period: 02/01/2012-08/31/2012
Total Funding: Total: $28,953 Direct: $19,320; Indirect: $9,273

Evidence-based Practice Centers (EPCs) IV – Research Triangle Institute and UNC-CH, as the RTI-UNC EPC, have been awarded a fourth consecutive 5-year master task order by the Agency for Healthcare Research and Quality (AHRQ).UNC-CH will be a subcontract to RTI for this Indefinite Delivery/Indefinite Quantity (IDIQ) award. The goal of EPC work is to present the 'state of the science' on a given topic in a manner that can be directly applied to decisions made by users of health care information. These users include clinicians, patients, policy-makers, and payers, and may be individuals or their related organizations. Topics cover all health care clinical and therapeutic areas of focus, from preventative services to implementation of medical devices. EPCs conduct rigorous systematic reviews, synthesize results of systematic reviews and report the findings, advance the methodology of systematic review, collaborate with partners and perform other related EPC activities. Successful execution of each of these essential activities requires an effective and efficient team of multidisciplinary individuals with a high level of consistent functioning at both the individual and collective levels.

Principal Investigator: Daniel E. Jonas, M.D., M.P.H.
Funding: RTI via AHRQ
Total Project Period: 09/01/2012 – 08/31/2017
Total Funding: Master Task Order Contract with Multiple Task Order Contracts

Associate Editor Duties for the EPC – Timothy Carey, M.D., M.P.H. will serve as an 'associate editor' for the EPC, conducting edits and providing comments of EPC reports by other Centers for AHRQ.

Principal Investigator: Timothy S. Carey, M.D., M.P.H.
Funding: RTI via AHRQ
Total Project Period: 12/31/2011-08/31/2012 (extended through 8/31/13)
Total Funding: Total: $4,609; Direct: $3,114; Indirect: $1,495

Evidence Synthesis and Translation under MMA Section 1013 Area 4 - UNC personnel at the RTI-UNC Evidence-based Practice Center (EPC) will collaborate with investigators at RTI to: 1) develop two topics through literature scans for comparative effectiveness reviews (CER); 2) develop key questions, background information, PICOTS (population(s), intervention(s), comparator(s), outcomes, timing, settings) and define terms for two topics assigned; 3) conduct a small systematic review of available literature for evidence for one of the assigned topics; 4) produce an organized report of the findings of the small systematic review, that presents available evidence for the identified key questions; 5) conduct a medium CER of available literature for evidence for one of the assigned topics; 6) produce an organized report of the findings of the medium CER, that presents available evidence for the identified key questions.

Principal Investigator: Daniel E. Jonas, M.D., M.P.H.
Funding: RTI via AHRQ
Total Project Period: 09/01/2012 – 02/28/2015
Total Funding: Total: $437,500; Direct: $287,829; Indirect: $149,671

Evidence Synthesis and Translation under MMA Section 1013 Area 5 - UNC personnel at the RTI-UNC Evidence-based Practice Center (EPC) will collaborate with investigators at RTI to: 1) develop two topics through literature scans for comparative effectiveness reviews (CER); 2) develop key questions, background information, PICOTS (population(s), intervention(s), comparator(s), outcomes, timing, settings) and define terms for two topics assigned; 3) conduct a small systematic review of available literature for evidence for one of the assigned topics; 4)

produce an organized report of the findings of the small systematic review, that presents available evidence for the identified key questions; 5) conduct a medium CER of available literature for evidence for one of the assigned topics; 6) produce an organized report of the findings of the medium CER, that presents available evidence for the identified key questions; 7) produce a technical brief for an additional topic.

Principal Investigator:	Daniel E. Jonas, M.D., M.P.H.
Funding:	RTI via AHRQ
Total Project Period:	09/25/2012 – 03/25/2015
Total Funding:	Total: $538,999; Direct: $354,605; Indirect: $184,394

Nursing Home Medication Error Project – In response to Senate Bill 1016 which mandates that nursing homes report medication errors, this project is developing and implementing a nursing home medication error reporting system for the State of North Carolina. This is a collaborative effort with key staff within the Division of Health Services Regulation, as well as nursing home industry representatives. An incident specific reporting format and an annual report are being developed, nursing home staff are being trained to collect and report the data, data are being received and analyzed, and annual summary reports are being prepared.

Principal Investigator:	Sandra B. Greene, Dr.P.H.
Funding Source:	NC Department of Health and Human Services, Division of Health Services Regulation (formerly Division of Facility Services)
Total Project Period:	02/01/04 – 12/31/12
Total Funding:	Total: $794,581; Direct: $719,397; Indirect: $75,184
Secondary Program Area:	Aging, Disability, and Long-Term Care

Decision Support Lab - Breast Cancer Project – The Decision Support Lab at The Cecil G. Sheps Center for Health Services Research will continue research on breast cancer treatment decisions during the 2012-2013 fiscal year. This work is part of the study "Measuring the Quality of Decisions in Breast Cancer" and involves survey research with breast cancer survivors. Validation in Newly Diagnosed Patients This phase of the study will validate the reconstruction decision quality instruments in women who have been diagnosed with early stage breast cancer. The instruments measure the degree to which patients are informed and the degree to which their decisions reflect their values. Approximately 100 patients from 2 sites will be enrolled in this phase of the study. Participants will receive the reconstruction decision instrument by mail approximately 4 weeks after their mastectomy. They will then receive a 1 year follow up survey a year after completion of the baseline survey. This longitudinal assessment will be important to examine how their knowledge and preferences may change over time. Data will be sent to the Center for Survey Research for analysis.

Principal Investigator:	Clara Lee, M.D.
Funding:	Foundation for Informed Medical Decision Making
Total Project Period:	07/01/2012-06/30/2014
Total Funding:	Total: $34,999; Direct: $29,914; Indirect: $5,085

Develop Evidence to Inform Decisions About Effectiveness: The DEcIDE Network – The DEcIDE network provides a variety of services and products to support the development of new scientific knowledge through research on the outcomes of healthcare items and services. Activities performed by the DEcIDE network reflect the general principle that clinicians and patients should have the best available evidence upon which to make choices in health care items and services. Hence, the network rapidly develops scientific evidence and new analytic tools to assist healthcare providers, patients, and policy makers with making informed decisions about the comparative effectiveness, appropriateness, safety, and outcomes of healthcare items and services, particularly prescription medications and medical devices.

Principal Investigator:	Til Stürmer, M.D, M.P.H. (2009-Present)
Principal Investigator:	Suzanne L. West, Ph.D., M.P.H. (2005-2007) and Michael D. Murray, Pharm.D., M.P.H. (2007-2009)
Funding Source:	Agency for Healthcare Research and Quality
Total Project Period:	09/16/05 – 07/24/13
Total Project Funding:	Total: $200,000; Direct: $136,986; Indirect: $63,014

Improving Performance in Practice Phase V – Improving Performance in Practice (IPIP) is a national effort to improve the quality of care provide by primary care practices for patients with diabetes and asthma and then spreading to other conditions. The effort is led by the American Board of Medical Specialties (ABMS) with

participation from the boards and specialty societies of Family Medicine and Pediatrics. The proposed project is for implementation of the model in North Carolina and Colorado and spread to two other states. Dr. DeWalt is an integral member of the national quality improvement team that will support the ABMS and the states as they implement the program.

Principal Investigator:	Darren DeWalt, Ph.D.
Funding:	Children's Hospital Medical Center of Cincinnati
Total Project Period:	09/01/2010 – 08/31/2012 (extended through 08/31/2013)
Total Funding:	Total: $39,992; Direct: $38,454; Indirect: $1,538

Multi-site Collaborative Study for Adherence Virologic and Clinical Virologic and Clinical Outcomes – Adherence to HIV antiretroviral therapy is closely associated with HIV viral suppression, drug resistance development, disease progression, and death. A great deal has been learned about the measurements, correlates, and outcomes of adherence to antiretroviral therapy; yet, most of the current understanding is based on outdated, partially suppressive regimens with limited patient sample sizes. Important questions remain: a) How do the complexities of adherence behavior that are not captured by a simple percentage of missed doses influence virologic and clinical outcomes? b) Has the relationship between adherence and treatment outcomes changed with newer, longer half-life medications? c) Does adherence behavior determine whether patients develop either limited or multi-drug resistance mutations? d) How do different adherence intervention strategies compare with each other? and e) How much adherence is necessary to prevent morbidity and mortality? The specific aims of this project are to: 1) capture the full range of complex adherence behavior with valid approaches, 2) examine patterns and identify predictors of adherence, 3) model treatment exposure and virologic outcomes, and 4) model treatment exposure and clinical outcomes.

Principal Investigator:	Carol E. Golin, M.D., M.P.H.
Funding Source:	National Institute of Mental Health, NIH (subcontract with The Regents of the University of California)
Total Project Period:	07/07 – 05/31/13
Total Funding:	Total: $109,500; Direct: $75,000; Indirect: $34,500

Improving Cancer-Related Patient Decision Making – High quality clinical decision making is necessary to realize the full benefits of emerging cancer prevention and treatment strategies. Currently, patients and providers are often without the resources or skills to implement high quality decision making processes. Integrating expertise from the fields of cognitive psychology, health economics, and health services research can improve cancer-related decision making research and practice. This award will be used to support Dr. Pignone while he develops a strong multidisciplinary research program at UNC in cancer-related decision making that includes new research and mentorship of junior investigators working intensively with 4-6 primary trainees and a similar number of secondary trainees at a time.

Principal Investigator:	Michael P. Pignone, M.D., M.P.H.
Primary Funding Source:	National Cancer Institute
Total Project Period:	9/3/08 – 8/31/13 (extended through 8/31/14)
Total Funding:	Total: $764,678; Direct: $708,036; Indirect: $56,642

Betsy Sleath and colleagues at the Cecil Sheps Center for Health Services Research continue their work on "Communication about Glaucoma and Patient Outcomes". They have partnered with researchers at Duke University, Emory University, and the University of Utah.

The study is providing the National Eye Institute with needed information on how provider-patient communication about glaucoma and its treatment is associated with patient eye drop technique and medication adherence. Between 9 and 12% of all blindness in the United States is attributed to glaucoma. The absence of symptoms in glaucoma patients increases the risk of regimen non-adherence among these patients. Approximately 50% of individuals who start on glaucoma medications discontinue them within 6 months.

We have enrolled 279 patients (51 new users of glaucoma medications and 228 continued users) at six ophthalmology practices in four states. Our patient sample is 35% African American and 59% female. Fourteen percent of our sample reads at an eighth grade level or below. Patient age ranges from 21 to 93 years (mean=65.8 years).We video-taped patient medical visits when they enrolled into the study. Immediately after the medical visit, a research assistant conducted an interview with each participant and video-taped their eye drop technique. The

research assistant then put the glaucoma medications into prescription vials with Medication Event Monitoring Systems (MEMS) to electronically assess patient adherence. The patient's next visit (which typically occurred between four and six weeks later) was also video-tape recorded. The research assistant again conducted an interview with the patient and video-taped their eye drop technique. The MEMS adherence data was downloaded. Patients were then followed and interviewed approximately 6 months after this second video-taped visit, so patients were followed for a total of 8 months. The MEMS adherence data was downloaded at the 8-month visit. The research assistant interviewed the patient and recorded the eye drop technique.

The primary aim of this project is to examine how provider-patient communication is associated with medication adherence, medication persistence, and intraocular pressure (IOP) during the 8-month period that patients are followed. The key aspects of communication that we are examining include the extent to which providers: (a) do an individualized assessment of patients' views of glaucoma and its treatment, (b) engage in collaborative goal setting with patients, and (c) enhance patient glaucoma self-management skills. Our theoretical framework for the study is based on Social Cognitive Theory because better provider communication in each of these three areas can potentially improve patient self-efficacy, intention to adhere, and outcome expectations, which can impact the patient outcomes that are measuring (medication adherence, persistence, and IOP). We have five manuscripts out under review that use the baseline data. We are continuing to build and analyze our 4 to 6 week and 8 month follow-up data. The findings from this study will be used to educate providers and patients about how to optimize communication during glaucoma visits to assure improved patient outcomes. If we find that certain aspects of provider-patient communication during medical visits are related to medication adherence and persistence and IOP, we can then design intervention studies to test strategies to improve communication between providers and patients during glaucoma visits that could be readily adapted into practice.

Communication about Glaucoma and Patient Outcomes – Between 9 and 12% of all blindness in the United States is attributed to glaucoma. The absence of symptoms in glaucoma patients increases the risk of regimen non-adherence among these patients. Approximately 50% of individuals who start on glaucoma medications discontinue them within 6 months. Provider-patient communication about glaucoma and its treatment can be a critical factor that impacts initial treatment adherence and persistence. Little is known about provider-glaucoma patient communication. This project will examine how the provider-patient communication that occurs when patients are initially started on glaucoma medication treatment impacts medication adherence, medication persistence, and intraocular pressure (IOP) during the 8 month period after the drops are started The findings from this study can be used to educate providers and patients about how to optimize communication during glaucoma visits to assure improved patient outcomes.

Principal Investigator:	Betsy Sleath, Ph.D.
Primary Funding Source:	National Eye Institute
Total Project Period:	5/1/09 – 4/30/13 extended through 4/30/14)
Total Funding:	Total: $2,648,449; Direct: $1,796,349; Indirect: $852,100

Decision Support Lab - Primary Care Initiative – Shared decision making is an important component of quality medical care. The use of decision aids in clinical practice increases shared decision making and improves care. However, implementation of decision aids in primary care can be difficult because of multiple barriers including time restraints and a hectic clinical environment. Unfortunately, the current standard for decision support for most primary care practices ranges from unsystematic at best to non-existent at worst. The few existing programs often rely on physician referrals or patient requests which are not systematic and may not reach the patients most likely to benefit from decision support. Based on our previous work, we conclude that to sustainably deliver decision aids will require a system that ties distribution to an upcoming visit, automates as much of the delivery process as possible, and then implements changes that alter staff work flow to assure delivery. The design of the Patient Decision Quality Initiative is to combine improved information technology in our practice to appropriately distribute decision aids to patients with Continuous Quality Improvement techniques to facilitate systematic staff delivery of decision aids to all of our patients who might benefit from decision support using an automated Decision Aid Delivery System. The overarching goal of the Patient Decision Quality Initiative is to improve the quality of care using decision support to promote shared decision making. Our vision for the Patient Decision Quality Initiative is to deliver appropriate decision aids to all eligible patients all of the time. To achieve our vision, we will build on our successful quality improvement program for chronic conditions (diabetes, heart failure, pain, anticoagulation) through the following objectives: 1) We will first develop and refine a systematic decision aid delivery system in

one of our four clinic teams. 2) We will expand this system to the three remaining teams within the practice using CQI techniques.

Principal Investigator:	Carmen Lewis, M.D., M.P.H.
Funding Source:	Foundation for Informed Medical Decision Making
Total Project Period:	7/1/09 – 6/30/13
Total Funding:	Total: $676,217; Direct: $577,963; Indirect: $98,254

Decision Support Lab - Medical Editor – Dr. Pignone will serve as a Medical Editor and as UNC-CH Principal Investigator for the grant. His duties include: 1) Participating in evaluations of new and existing decision aids developed by the Foundation, through administrative support, oversight, and participation in data analysis and reporting. 2) Serve as the Medical Editor for the following decision aids: colon cancer screening, "Living with Coronary Artery Disease", and heart failure. 3) Participate in further development and evaluation of decision making tools for the primary prevention of heart disease as determined by the Foundation. 4) Prepare Health News Reviews. 5) Participate in the IPDASi process as co-chair, including subsequent validation of the items included in the IPDAS instrument. 6) Facilitating the expansion of decision support and decision aid use in Australia for the Foundation.

Principal Investigator:	Michael Pignone, M.D., M.P.H.
Funding Source:	Foundation for Informed Medical Decision Making
Total Project Period:	7/1/09 – 6/30/13 (ongoing)
Total Funding:	Total: $55,419; Direct: $51,793; Indirect: $3,626

Developing a Spanish Language Decision Aid for Colorectal Cancer Prevention: The CHOICES/ OPCIONES Project – Patient-physician communication barriers contribute to under use of colorectal cancer (CRC) screening. US Latinos have the lowest CRC screening rates among the major racial/ethnic groups, putting them at greater risk for late-stage disease presentation and death from CRC. Objective: Our overall objective is to develop an appropriate Spanish language version of a patient decision aid for CRC screening that could be used in a future clinical trial to improve CRC screening and decision-making in LEP Latinos.

Principal Investigator:	Daniel Reuland, M.D.
Funding Source:	American Cancer Society
Total Project Period:	7/1/09 – 6/30/12 (extended through 12/31/12)
Total Funding:	Total: $299,805; Direct: $299,805; Indirect: $0

Multi-morbidity and Cancer Screening: Achieving Patient Understanding – Dr. Lewis will work with Dr. Gross, the principal investigator and other co-investigators, analyzing the qualitative data. She will oversee recruitment, and data collection and management. She will oversee a Research Assistant as she performs the usability testing of the educational tool in older adults at the UNC-CH General Internal Medicine Clinic and the Seymour Senior Center in Chapel Hill NC. Finally, in association with Dr. Gross and other investigators, she will help draft the manuscript for the main results. The UNC site will recruit approximately 50 subjects to test the educational tools. Recruitment will be at two sites, the UNC-CH General Internal Medicine Clinic and the Seymour Senior Center in Chapel Hill NC.

Principal Investigator:	Carmen Lewis, M.D., M.P.H.
Funding Source:	Yale University via AHRQ
Total Project Period:	8/1/09 – 9/29/11 (extended through 9/29/12)
Total Funding:	Total: $93,974; Direct: $63,496; Indirect: $30,478

Validation of a Mortality Prediction Model for Prolonged Mechanical Ventilation – Many patients who survive the first few days of critical illness do so with multiple residual organ failures. These patients become dependent on mechanical ventilation and other organ support systems initiated in the ICU. Patients requiring prolonged mechanical ventilation (PMV) account for up to 20% of mechanically ventilated patients and consume up to 40% of all ICU resources. The patients have survived the initial severe stages of their illness, yet they remain dependent on life support systems, progress is slow, and complications are frequent. Physicians are often confused and uncertain about prognosis for PMV patients, therefore they usually do not share prognostic information with patients' families. In order to clarify prognosis for these complicated patients, a prognostic model that identifies PMV patients who are at high risk of death at 3 months and 1 year was developed and validated at a single tertiary care medical center. This model is based upon 4 easily measured variables and converts to a clinical prediction rule called the ProVent Score. External validation of the model is required before general clinical application can be considered. This study proposes to validate the PMV prognostic model in two external cohorts with the following Aims: 1.) To validate the

PMV prognostic model and ProVent Score in a heterogeneous group of patients from multiple medical centers. 2.) To evaluate the performance of the ProVent Score and develop new models in patients who are earlier in the course of PMV. 3.) To validate the ProVent Score in patients with Acute Lung Injury and the Acute Respiratory Distress Syndrome. The cohort for the first two Aims will consist of 600 consecutive PMV patients identified at 5 diverse tertiary care hospitals. Data will be obtained by review of medical records, and one-year survival will be confirmed by the National Death Index. The second cohort will consist of all patients in the NHLBI ARDS Clinical Trials Network FACTT trial who received PMV. A valid PMV prognostic model will allow investigators to standardize illness severity in future studies of interventions for PMV patients, and a clinically useful prognostic score will enhance the confidence of clinicians in communicating prognosis to patients and families.

Principal Investigator: Shannon Carson, M.D.
Primary Funding Source: NIH
Total Project Period: 09/01/09 – 06/30/14
Total Funding: Total: $423,156; Direct: $317,330; Indirect: $105,826

PROMIS Pediatrics: Longitudinal Validation and Linking Pediatric and Adult Items Banks – The overall objectives of this project are to validate the PROMIS pediatric item banks in 4 pediatric chronic illnesses, and to link pediatric and adult item banks. We developed 9 pediatric item banks during the first PROMIS grant cycle and have performed cross-sectional testing in children with several chronic illnesses. The proposed work is the natural next step toward integration of PROMIS scales into clinical research. We propose longitudinal studies in children with asthma, cancer, nephrotic syndrome, and sickle cell disease. Each study follows children through a clinical transition known to affect health-related quality of life, and each study will examine the responsiveness of the PROMIS instruments and estimate the minimum important difference (MID) for children. As part of these studies, we have proposed to test a new method for establishing MID and to compare that method with traditional distributional and anchor-based methods. The second overall objective is to link PROMIS pediatric item banks with PROMIS adult item banks. We designed most of the pediatric banks to measure the same underlying trait as their counterpart adult banks (e.g., fatigue), but used the concepts and language of children. We will administer pediatric and adult short forms to adolescents with chronic illnesses with a cross-sectional data collection. For this objective, we will use factor analysis and structural equation modeling to establish the empirical relationships between the pediatric and adult item banks and domains, and, to the extent supported by those relationships, use item response theory to link the pediatric and adult item banks. This study will enable researchers to have comparable scores between children and adults participating in the same study and enable longitudinal studies that follow children into adulthood.

Principal Investigator: Darren A. DeWalt, M.D.
Funding Source: National Institute of Arthritis Musculoskeletal and Skin Diseases
Total Project Period: 9/30/09 – 7/31/13 (extended through 7/31/14)
Total Funding: Total: $3,609,406; Direct: $3,208,182; Indirect: $401,224

DEcIDE Comparative Effectiveness of IV Iron Formulations in End Stage Renal Disease – Anemia is a highly prevalent condition among the approximately 500,000 people in the US with end-stage renal disease (ESRD) and is associated with increased morbidity, mortality, and healthcare costs. The anemia of ESRD is managed primarily through treatment with recombinant human erythropoietin and the administration of intravenous iron. Currently, two formulations of iron are in widespread use in dialysis patients: iron sucrose and sodium ferric gluconate. Although these compounds are distinct molecular entities and possess different pharmacokinetic properties, there are no data from large populations on the head-to-head safety or effectiveness of these formulations. There is also little evidence regarding the optimal dosing of intravenous iron. For example, iron can be administered via periodic maintenance doses or given through bolus administrations: a sequence of administrations in which a large amount of iron is given over consecutive dialysis sessions. Sub-optimal use of iron could worsen anemia, lead to hypersensitivity reactions, or lead to excess labile iron in the plasma that may increase risk of cardiovascular events or serious infections. For reasons of cost, it is unlikely that any of these questions will be definitely addressed in a large head-to-head comparative randomized trial. Therefore, we propose to address these important evidence gaps through a large-scale observational study of two large cohorts of dialysis patients.

Principal Investigator: Til Stürmer, M.D, M.P.H. Task Order PI; Alan Brookhart, Ph.D. Task PI
Funding Source: AHRQ
Total Project Period: 7/15/10- 7/14/13
Total Funding: Total: $2,836,647; Direct: $2,122,622; Indirect: $714,025

Prostate cancer, the most common cancer in men, is diagnosed in more than 240,000 each year in the US, and is the second leading cause of cancer deaths in men, with mortality greater than 30,000 each year. Over 90% of prostate cancers are early stage (localized, non-metastatic). Prostate cancer and its treatments cause significant morbidity, anxiety and adverse impact on quality of life (QOL) to patients. Comparative effectiveness of prostate cancer treatment options is a "highest priority" research topic according to the Institute of Medicine. The **North Carolina Prostate cancer Comparative Effectiveness and Survivorship Study (NC ProCESS**), an Agency for Healthcare Research and Quality (AHRQ)-funded project, is being led by Sheps' Investigators Ronald Chen, MD, MPH, and Paul Godley, MD, PhD to assess the comparative effectiveness of modern treatment options for localized prostate cancer. From 2011-2013, through the North Carolina Central Cancer Registry's Rapid Case Ascertainment system, we assembled a population-based prospective cohort of ~1,500 patients enrolled at diagnosis and followed longitudinally for factors associated with treatment selection, quality of life, cancer control and survival. The cohort continues to be followed and assessed during annual follow-up telephone interviews and medical record collection.

Furthermore, Drs. Chen and Godley, along with their team, used SEER-Medicare data to examine patterns of radiation technology use in prostate cancer and patient outcomes from different technologies. These studies showed a complete adoption of new radiation technology in 8 years: Intensity-modulated radiation therapy (IMRT) use increased from essentially 0% in 2000 to 95.9% in 2008, completely replacing the older conformal radiation technology. IMRT, a more sophisticated method of delivering radiation to the prostate from multiple angles, purports to reduce side effects compared to the older radiation technique. Proton therapy, a very costly radiation treatment which uses high energy particles (protons) to treat cancer, seems now to be increasing in use at a rapid pace, fueled by direct-to-consumer advertising. The investigator team showed that IMRT was associated with reduced patient morbidity compared to the older conformal radiation, but proton therapy was associated with a higher rate of long-term bowel morbidity with no clear benefit compared to IMRT. These results grabbed national attention after being published in the **Journal of the American Medical Association** (2012;307(15):1611-20).

Comparative Effectiveness of Management Options for Localized Prostate Cancer – This project will use secondary analysis of existing data, retrospective analysis of SEER/Medicare data and prospective cohort data to comparative the effectiveness of management options for early prostate cancer. 1: To directly compare the disease-free and overall survival in men with localized prostate cancer treated by retropubic prostatectomy, minimally-invasive prostatectomy, 3D conformal radiation therapy, intensity-modulated radiation therapy, proton radiation therapy, and brachytherapy, stratified by prostate cancer risk group, race, and age group. 2: To directly compare the prostate-cancer specific and overall quality of life in men with localized prostate cancer treated by the same treatment modalities, stratified by age group. 3: To directly compare the disease characteristics, disease-free survival and quality of life outcomes in African American men and men living in Federally-designated Medically Underserved Areas. 4: To examine disease, other clinical and demographic factors that affect the decision making process of men with newly-diagnosed prostate cancer.

Principal Investigator:	Til Stürmer, M.D, M.P.H. Task Order PI; Paul Godley, M.D., Ph.D., M.P.P. Task PI; Ronald Chen, M.D., M.P.H. Task PI
Funding Source:	AHRQ
Total Project Period:	7/15/10- 7/14/13
Total Funding:	Total: $3,378,263; Direct: $2,282,610; Indirect: $1,095,653

Developing Evidence to Inform Decisions about Effectiveness Research Network-2 (DEcIDE-2) – This program is supported by the Agency for Healthcare Research and Quality (AHRQ) to assist AHRQ and other Federal Agencies with patient-centered outcomes research, including studies on comparative clinical effectiveness as authorized by Section 1013 of the Medicare Modernization Act of 2003 (MMA) and subsequent legislation such as the American Recovery and Reinvestment Act (ARRA). The DEcIDE-2 Research Network will continue to provide a variety of research services and scientific products to support the generation of new scientific evidence on patient-centered outcomes of healthcare items and services, with a focus on comparative clinical effectiveness research. Activities performed by the DEcIDE Research Network reflect the general principle that clinicians and patients should have the best available scientific evidence upon which to make individual decisions about health care items and services. Notably, a hallmark of the DEcIDE Research Network program is to provide high quality research that contributes to the evidence base and serves to inform healthcare decision-making. Hence, the DEcIDE Research Network program will continue its focus on original research that generates objective scientific evidence and new analytic tools for assisting patients, clinicians, purchasers, policy-makers, and others in making informed health care decisions. NOTE: None of the task orders awarded under the IDIQ contracts will be subject to ARRA

funding and reporting requirements. Major activities a DEcIDE-2 research center may perform: 1. Conduct multi-center prospective observational and interventional studies. 2. Analyze, link, and develop electronic health data for research. 3. Perform retrospective analytical studies to inform and support research as well as research prioritization and decision-making. 4. Develop and apply new research methods, instruments, and methodologies. 5. Provide technical assistance to AHRQ and other assignments as requested.

Principal Investigator:	Til Stürmer, M.D., Ph.D.
Funding:	AHRQ
Total Project Period:	07/26/2010 – 07/24/2013
Total Funding:	Total: $0; Direct: $0; Indirect: $0

Accelerating adoption of CER results with patient decision support interventions – The promise of comparative effectiveness research (CER) is that it will lead to improved clinical decision-making and better performance of the US healthcare system (REF). But whether CER can fulfill its potential and translate the results into evidence-based clinical decisions depends on adoption of CER results into daily practice. Decision support interventions (DESIs) that communicate CER results to patients have been shown to improve clinical decision making in clinical trials; however, additional work is needed to identify the most efficient ways of implementing DESIs so that CER results can inform routine clinical practice. Despite the growing evidence base supporting the use of DESIs, the implementation of these tools in routine clinical practice remains in its infancy. With grant support from the Foundation for Informed Medical Decision Making, the researchers have spent the past 4 years exploring various approaches to implementing DESIs in primary care practices. These efforts have highlighted two key issues in implementing DESIs: (1) ensuring that DESIs are provided to eligible patients by their healthcare teams, and (2) ensuring that patients review a DESI once it has been provided to them. We propose to build on our extensive knowledge and experience to test alternative strategies for implementing DESIs in primary and specialty care in two geographically and structurally diverse health care systems - the Palo Alto Medical Foundation, a community-based multi-specialty care system (prime) and the University of North Carolina, Chapel Hill (subcontract), an integrated academic health care system. The goals of the proposed research are: (1) to test alternative approaches to distributing and increasing patient use of decision support interventions (DESI) for prostate cancer screening, and (2) to test the efficacy of a DESI for prostate cancer treatment.

Principal Investigator:	Carmen Lewis, M.D., M.P.H.
Funding:	Palo Alto Medical Foundation
Total Project Period:	09/01/2010 – 08/31/2013
Total Funding:	Total: $1,155,169; Direct: $780,520; Indirect: $374,649

Greater Cincinnati Beacon Community PCMH Collaborative – Drs. DeWalt and Scoville will work closely with the Health Improvement Collaborative (HIC) team to implement a PCMH and diabetes performance improvement learning collaborative. They will participate in the faculty meetings and advise the staff at HIC. They will participate in the learning sessions and advise the practices and the coaches on diabetes improvement strategies. They will also help to plan the learning sessions and give lectures as needed to add content to the collaborative. They will also work with HIC on the measurement strategy and work with HealthBridge to integrate performance measurement into their registry and information technology solutions. Dr. Horowitz will advise Drs. DeWalt and Scoville as needed and provide direct consultation to HIC should they desire to address Maintenance of Certification with their improvement program.

Principal Investigator:	Darren DeWalt, M.D., M.P.H.
Funding:	Health Improvement Collaborative via Office of the National Coordinator for Health Information Technology
Total Project Period:	06/01/11-03/31/13
Total Funding:	Total: $222,741; Direct: $150,501; Indirect: $72,240

Demonstration of Health Literacy Universal Precautions Toolkit Task Order #10 – Dr. DeWalt is an internationally recognized expert in health literacy and first author of the Health Literacy Universal Precautions Toolkit. He will direct the scientific content of the Maintenance of Certification (MOC) Part II module and also chair the committee of content experts who will review, select, and revise the content to be included in the module. The deliverables for this project include: an environmental scan report of existing health literacy education activities; a health literacy MOC training outline; a health literacy MOC training module (English and Spanish); a list of organizations giving CME credit, and a report on the dissemination activities for the training module.

Principal Investigator:	Darren DeWalt, M.D., M.P.H.

Funding: AHRQ via University of Colorado
Total Project Period: 08/01/2011-09/21/14
Total Funding: Total: $129,646; Direct: $87,599; Indirect: $41,047

Family Members Influence Quality and Delivery of Care for Heart Failure Patients – There is a fundamental gap in how the presence of family companions in medical visits influences indicators of quality of care, such as patient-centered communication (e.g., communication that reflects respect for patients' values and incorporates patient's concerns and preferences into decision-making), specifically for patients with heart failure - a particularly vulnerable population by virtue of its high morbidity and mortality. The long-term goals of this project are to improve the quality and delivery of care and subsequent health outcomes for Heart Failure (HF patients). The overall objective here, which is our next step in pursuit of our long-term goal, is to determine whether family accompaniment influences processes of care within the medical visit and use this information to inform intervention development. The rationale for the proposed research is that once we know how family members influence quality and delivery of care we can fulfill the call to action of policy makers and health care models to "create an integrated, coherent plan for ongoing medical care in partnership with patients and their families."
Principal Investigator: Crystal Wiley Cene, M.D., M.P.H.
Funding: NIH
Total Project Period: 06/14/11-04/30/14
Total Funding: Total: $484,888; Direct: $448,970; Indirect: $35,918

An Economic Framework for Evaluating Biomarkers Used to Target CVD Prevention – Dr. Pignone will help update the UNC-CH/RTICHD Prevention Model for use with novel cardiovascular risk markers. He will then work in collaboration with colleagues at RTI and UCSF to test, through modeling, the cost-effectiveness of using coronary artery calcium in addition to the standard Framingham risk assessment to guide cardiovascular prevention decisions. In doing so, the team will test a variety of different clinical and policy scenarios and systematically examine the effects of key individual variables on the results. Dr. Pignone will also participate in manuscript preparation and revision.
Principal Investigator: Michael Pignone, M.D., M.P.H.
Funding: University of California at San Francisco via AHRQ
Total Project Period: 07/01/2011-7/31/2013 (extended through07/31/2014)
Total Funding: Total: $82,243; Direct: $55,570; Indirect: $26,673

Validation of Inverse-Probability of Missing Data Approach for the Inclusion of Laboratory Data in Healthcare Database Research – Aim 1) To construct rich predictive models for the availability of each of the laboratory test results of interest. Aim 2) To compute a distribution of laboratory results for each of the laboratories of interest in a sample in both an unweighted and an inverse-probability re-weighted sample. Aim 3) To compare distributions of laboratory values in the reweighted sample the distribution of lab results from NHANES.
Principal Investigator: Alan Brookhart, Ph.D.
Funding: AHRQ
Total Project Period: 07/19/11-10/18/12
Total Funding: Total: $120,000; Direct: $81,081; Indirect: $38,919

Comparative Effectiveness of Dissemination and Translation Techniques to Facilitate the Use of Comparative Effectiveness Reviews – This project includes three major components: 1) defining the comparative effectiveness of various dissemination and translation strategies for systematic reviews, 2) understanding the impact of various strategies for communicating evidence associated with scientific uncertainty (e.g. alternate presentations of imprecision, risk of bias, inconsistency) and how target audience characteristics and contextual factors affect the impact of these strategies, and 3) understanding the impact of various strategies to promote informed and shared decision making in the face of scientific uncertainty (e.g. decision aids, physician training, patient training, consumer training) and how target audience and contextual factors affect the impact of these strategies. For each component, we will perform preliminary evidence reviews and work with key content and technical experts in the field to refine questions for systematic evidence review. We will then conduct systematic evidence reviews for each key component relying on standard EPC protocols. We will identify relevant literature by searching MEDLINE®, CINAHL, PsychINFO, ERIC, and Cochrane Library databases. The investigative team will jointly discuss and grade the overall body of literature, generate recommendations for future research, and help disseminate findings to the research community and other stakeholders.

Principal Investigator: Timothy S Carey, M.D., M.P.H./Stacey Sheridan, M.D.
Funding: Research Triangle Institute (RTI International) via AHRQ
Total Project Period: 09/05/2011 – 01/31/14
Total Funding: Total: $135,001; Direct: $91,216; Indirect: $43,785

Merck Program for Assistance with Transitions from Hospital to Home (PATHH) – The purpose of the study is to determine impact of the Hospital Transition in Care (HTiC) Service on the following patient outcomes: 1) 30-day hospital readmission rate 2) Emergency room visits within 30-days after discharge 3) Patient satisfaction 4) Patient knowledge of discharge
Instructions 5) Patient adherence with discharge plans, In addition, the project seeks to test the technology and integration required to successfully execute, operate, and scale the HTiC Service and to identify opportunities to improve its design.
Principal Investigator: Carlton Moore, M.D.
Funding: Merck Sharp & Dohme
Total Project Period: 12/01/2011-12/31/2013
Total Funding: Total: $1,146,383; Direct: $996,855; Indirect: $149,528

Improving Decision Making for Patients with Prolonged Mechanical Ventilation – The investigators at UNC will be responsible for multiple aspects of the proposed research. They will help to refine the decision support tool during the study and train investigators with regard to presentation and explanation of the instrument. They will be responsible for recruitment and enrollment of eligible patients, completion of the intervention, and data collection. Members of the Coordinating Center will develop electronic case report forms and data management systems and assist with data analysis.
Principal Investigator: Shannon Carson, M.D.
Funding: Duke University via NIH
Total Project Period: 04/01/12 – 06/30/13
Total Funding: Total: $947,638; Direct: $640,296; Indirect: $307,342

Comparative Effectiveness of CyberKnife Robotic Radiosurgery for Prostate Cancer – The Agency for Healthcare Research and Quality (AHRQ) has funded a large, 3-year study at the University of North Carolina (UNC) to examine the comparative effectiveness of prostate cancer treatments. This is a prospective cohort study of over 1,000 patients in North Carolina who will complete surveys at baseline (pre-treatment) and then prospectively during follow-up. There are few patients treated with CyberKnife radiation therapy in the state of North Carolina, so this treatment modality will not be fully examined in the cohort study. The CyberKnife Robotic Radiosurgery "parallel study" is a collaboration with other institutions across the United States to enroll 100 patients onto a prospective cohort, who will be followed using identical methods as the North Carolina cohort. This will allow comparisons of quality of life, disease control and survival of patients treated with this newer treatment modality against those of other treatments.
Principal Investigator: Ronald Chen, M.D., M.P.H.
Funding: Accuray Incorporated
Total Project Period: 06/01/12-05/31/13 (extended through 05/31/14)
Total Funding: Total: $100,000; Direct: $67,568; Indirect: $34,432

UNC Research Center of Excellence in Clinical Preventive Services – The Agency for Healthcare Research and Quality (AHRQ) awarded a 3-year study at the University of North Carolina (UNC) to examine the comparative effectiveness of prostate cancer treatments. This was in response to the important problem of overuse of some screening services, which can expose patients to avoidable harms and contribute to high health care costs. The Center seeks to understand and encourage appropriate use of screening through an integrated research agenda and the activities of the Core Office.
Three primary research projects are currently in the field. In Project 1, qualitative interviews have been conducted to determine patients conceptualize the potential harms of preventive screening, and a randomized trial will test the effect of different presentations of potential harms on patient intent to undergo prostate cancer screening, colorectal cancer screening, or osteoporosis screening. Project 2 aims to understand physicians' knowledge, attitudes, and decision making about potentially harmful screening clinical preventive services, through qualitative interviews and a quantitative survey. Project 3 is investigating, in a randomized trial, the effect of a patient decision support intervention on colorectal cancer screening decision in older patients.

The Center's Core Office administers the research efforts, and is charged with promoting research innovation in appropriate use and potential harms of screening, fostering collaboration with a variety of partners, advancing awareness of the topic among practitioners, other researchers, and policy makers, and providing a theoretical and practical foundation for the education of future clinicians.

Principal Investigator:	Russell Harris, M.D., M.P.H.
Project Lead Investigators:	Carmen Lewis, M.D., M.P.H., Stacey Sheridan, M.D., M.P.H., Maihan Vu, Dr.P.H.
Funding:	AHRQ
Total Project Period:	09/30/11 – 9/29/14
Total Funding:	Total: $4,500,000; Direct: $3,456,762; Indirect: $1116,517

Tweeting to Health – The overall aims for this Young Investigator Award are to pilot test the intervention and social support measures in preparation for a larger intervention study, which will be part of a future NIH Career Development Award application. We hypothesize that our intervention, Tweeting to Health, can motivate and create behavioral changes that lead to healthier lifestyles and foster social support to help facilitate these changes through the novel use of Twitter, a social media platform, and FitBit technology. FitBit devices, accelerometers with integrated data tracking services that can be linked to Twitter accounts, will be used to measure physical activity levels and intensity as self-reported activity is generally over-reported 15 and to assist with tracking of caloric intake.

Principal Investigator:	Arlene Chung, M.D.
Funding:	Academic Pediatric Association (APA Young Investigator Award)
Total Project Period:	07/01/2012 – 06/30/2013
Total Funding:	Total: $10,000

Regional Patient Safety Officer Conference - Learning Together Today and Tomorrow – Two substantial problems many PSOs face are limited access to peers and limited exposure to social sciences research. The Regional Patient Safety Officer Conference for Patient Safety Officers (PSOs) from the Virginia, North Carolina, and South Carolina will address these limitations. The first aim of this conference is to bring PSOs from the region together to build and maintain social capital through a conference design based on adult learning theory that includes reflective dialogue and the conceptualization of a virtual networking site to maintain the social structure. This networking site will be created for their use following the conference. Research results will be shared and discussed using adult learning theory methodologies that will actively engage the participants in immediately using the new information. The second aim is to disseminate and learn from social science research that is not widely available at other health care conferences to increase PSOs' knowledge and skill for organizational and cultural change. Conference topics will be drawn from behavioral economics, human resource development, public health and information science. The third aim is to provide opportunities for graduate-level students interested in patient safety research to connect with PSOs as potential research partners. PSOs and student participants will share storyboards on their background, organization, and research interests during the conference. Connecting students with PSOs is important because this can result in research collaborations, access to real data for the students or identification of research questions that might result in findings that are rapidly applied for organizational improvement. This one-day conference to be held in Cary, NC at the NC Center for Hospital Quality and Patient Safety with an opportunity for post conference networking at a nearby art museum is planned for approximately 40 PSOs and 10 graduate-level students. It is anticipated that PSO participants will have a variety of years of experience, background, and training, and work in hospitals and health care systems that are representative of all existing hospitals and health care systems. It is anticipated that student participants will be from schools of nursing, medicine, public health, and pharmacy that have graduate level programs.

Principal Investigator:	Tina Schade-Willis, M.D.
Funding:	AHRQ
Total Project Period:	08/01/2012 – 07/31/13
Total Funding:	Total: $38,502

Developing Evidence to Inform Decisions About Effectiveness Research Network: Developing and Evaluating Methods for Record Linkage and Reducing Bias in Patient Registries – Non-experimental comparative effectiveness research (CER) and patient-centered outcomes research (PCOR) provide important information about "real world" combinations of interventions for heterogeneous patient populations. To overcome the limitations of single databases, data from sources such as administrative claims can be linked securely and confidentially with data

from patient registries. Registry linkage can facilitate exposure and control group identification, improve measurement of risk factors and outcomes, or allow researchers to monitor events without contacting participants directly. However, at least four major challenges persist. First, unique personal identifiers for linkage are not always available. Second, non-experimental studies are subject to validity threats such as confounding by indication, selection bias, and misclassification of exposures or outcomes. Third, linkage errors can systematically bias estimates of treatment effectiveness. Fourth, although researchers have continued to develop new methods for deterministic and probabilistic linkage, these methods have not been tested thoroughly, and comprehensive guidelines are lacking. This project addresses these challenges by pursuing three major objectives: (1) Develop a framework and guidance for researchers on record linkage of registries to other data sources; (2) Develop and test new methods to improve confounding control and generalizability in CER/PCOR using linked data; and (3) Develop a method to improve instrumental variables analysis using linked registry data.

Principal Investigator:	Til Stürmer, M.D, M.P.H. Task Order PI; Alan Brookhart, Ph.D. Task PI
Funding:	AHRQ
Total Project Period:	9/27/12-7/24/14
Total Funding:	Total: $1,112,042; Direct: $731,608; Indirect: $380,434

Using Health Outcomes in Establishing the Effectiveness of Clinical Preventive Services – UNC-CH personnel will work with American Institutes for Research (AIR) and other organizations subcontracting with AIR to develop a protocol; engage technical experts and stakeholders; review US Preventive Services Task Force (USPSTF) recommendations and methods used by other groups; synthesize, catalog, and analyze findings to develop options for the USPSTF; write a draft and final report, and present results to the USPSTF. The aim of the project is to inform the methods that the USPSTF uses to evaluate the effectiveness of clinical preventive services through the conduct of an in-depth study of how the USPSTF considers intermediate outcomes and final health outcomes in determining the effectiveness of a clinical preventive service. The final stage of the award focuses on articles and publications.

Principal Investigator:	Russ Harris, M.D., M.P.H.
Funding:	American Institute for Research
Total Project Period:	09/30/12-09/29/13
Total Funding:	Total: $155,653; Direct: $102,403; Indirect: $53,250

Creation and demonstration of a collaborative, multi-site, palliative care research network to reinvigorate biomedical research in Palliative Medicine – We propose to cultivate new collaborations among established investigators, and to assemble a new multidisciplinary team, to facilitate the conduct of innovative, high-impact, clinically relevant research in one of the most challenging biomedical and behavioral areas – palliative care. While developing policies and procedures for inter-institutional, collaborative research, this project will also test the collaborative network and refine its methods through the design and conduct of a specific study addressing clinical uncertainty regarding withdrawal of lipid-lowering agents in the palliative care setting. This study, conducted in the context of a new national cooperative research network, will broaden our research base and enhance cross-fertilization. At the conclusion of the funding period, we expect to have both (1) completed the planned investigation, and (2) created a unique and innovative palliative care cooperative group that is sustainable, poised to conduct multiple future studies, and prepared to serve as a venue for recruiting new investigators and new expertise into the palliative care research community. An embedded clinical trial will serve as a focal point for development of the cooperative group. We propose a randomized comparative effectiveness study that is intended to provide important evidence regarding a standard, but unstudied, palliative care practice – withdrawal of medications for medical comorbidities as death nears. We focus on HMG Co-A reductase inhibitors (a.k.a., statins), prescribed for the primary or secondary prevention of hyperlipidemia, since they are common medications and their withdrawal is a source of major debate. Recommendations for their withdrawal have been proposed, but never tested. Specific aims include: 1. To determine if there is a difference in time-to-event in patients who are discontinued on statins vs. maintained on statins, as assessed via a composite endpoint encompassing death and major cardiovascular events (e.g., myocardial infarction, stroke). 2. To determine whether there are differences in patient- and family-perceived burden, and quality of life of patients and family/caregivers, when patients have statins withdrawn versus when patients continue on statins. 3. To assess the difference in cost between patients who have statins withdrawn versus those who continue on statins. UNC-CH will be a subcontractor for this work.

Principal Investigator:	Laura Hanson, M.D., M.P.H.
Funding:	Duke University Medical Center via NIH
Total Project Period:	09/01/2010 – 09/29/2013

Total Funding: Total: $572,768; Direct: $387,006; Indirect: $185,762

Implementing Best Practice in Palliative Care – Palliative care and hospice focus on the relief of suffering and achieving the best possible quality of life, including ameliorating symptoms, relieving psychological distress, and promoting spiritual well-being for patients their caregivers. The new National Institute of Nursing Research funded national research network, the Palliative Care Research Cooperative Group (PCRC), is an efficient mechanism for evidence development including comparative effectiveness research. Quality monitoring and performance improvement initiatives are an important approach to reinforce evidence implementation. Over the past 5 years, a regional electronic point-of-care quality monitoring program called QDACT-PC has been developed and piloted in North Carolina; it has been demonstrated to be well-liked by clinicians, usable, feasible, and able to generate reliable information that can be used to benchmark conformance with palliative care quality metrics and reinforce best practice. Specific aims of the project include: **AIM 1: To develop and nationally implement a uniform approach to palliative care quality monitoring using a PCRC specific version of QDACT-PC (QDACT-PCRC).** Upgrades include the addition of new data elements and question modules about caregivers, clinical sites characteristics, hospital-based palliative care, and assessment of the 5 items newly endorsed by the American Academy of Hospice & Palliative Medicine through the American Board of Internal Medicine (ABIM's) Choosing Wisely campaign. **AIM 2: To define benchmarks for key quality measures in palliative care using network-wide data from the QDACT-PCRC as a mechanism for delivering clinical decision support.** Using descriptive baseline data collection from all network sites, investigators will generate the first multi-site data on NQF endorsed and other quality measures for palliative care. **AIM 3: To test the use QDACT-PCRC as a mechanism for delivering clinical decision support that reinforces agreed best clinical practice.** Using an overarching PDSA approach, we will use a collaborative process to define areas for quality improvement based upon measures with greatest practice variation identified in Aim 2. For each area we will develop an improvement program including clinical decision support to be delivered via QDACT-PCRC, implement the intervention, monitor impact and update the intervention and process until goals are achieved. This project will generate a national system of real-time point-of-care quality monitoring for palliative care, with demonstrated capabilities to support quality improvement and implementation of best evidence.

Principal Investigator: Laura Hanson, M.D., M.P.H.
Funding: AHRQ via Duke
Total Project Period: 09/30/13-09/29/18
Total Funding: Total: $284,136

Refinement and expansion of the Palliative Care Research Cooperative Group – The overarching objective of this U24 grant application is to amplify the role of the national Palliative Care Research Cooperative (PCRC) as a resource for efficient conduct of high-quality, collaborative, and multisite PCEOL research. Our intention is to advance the PCRC to its next phase of development by leveraging and building upon the prior NINR investment and all accomplishments of the PCRC to date. The requested funds will allow us to advance the PCRC such that it will be recognized as a hub of expertise, interest, and activity in PCEOL research and key player in the development of the PCEOL research workforce. It will serve as an access point for: (a) critical PCEOL research infrastructure, including research cores, statistical support, data systems and procedures, measures and methodological guidance and technical support; and, (b) diverse PCEOL-relevant populations including patient, caregiver, and the historically underserved. We intend for the PCRC to set the gold standard for multisite PCEOL research. **Specific Aim #1:** To develop national ***research capacity*** for collaborative, multisite, PCEOL research in a way that maximizes the quality and efficiency of research, and the effectiveness of cooperative groups. **Specific Aim #2:** To provide integrated ***support for PCEOL research***, specifically, for the conduct, analysis, and dissemination of clinically meaningful, high-quality, efficient, patient-centered, multisite studies.

Principal Investigator: Laura Hanson, M.D., M.P.H.
Funding: NINR via Duke
Total Project Period: 07/01/13-06/30/18
Total Funding: Total: $702,200

Program on Mental Health and Substance Abuse Services and Systems Research
Joseph P. Morrissey, Ph.D., Program Director

Today, the U.S. mental health service system is in a period of transition. Providers in both the private and public sectors are searching for effective models of short- and long-term care for people with acute and chronic mental illness. Many of the issues confronting policy makers and service providers at the national, state, and local levels require new knowledge and research about:

- clinical and social outcomes for service recipients;
- the structures, processes, and effects of managed behavioral healthcare programs; and
- the integration of mental health services with other substance abuse, primary care, criminal justice, and social welfare systems.

The Sheps Center's work in this area involves studies taking place in North Carolina and throughout the United States.

The following research projects were active during the year:

Research Training in Mental Health Services & Systems – Program for social/behavioral scientists and clinicians seeking pre- and post-doctoral advanced training in mental health services research has two components: core activities and individualized study. The core component involves a weekly research seminar, participation in departmental seminars and grand rounds at the collaborating institutions, and other research seminars/workshops at UNC-CH or Duke. The individualized study component is tailored to the special interests and needs of each fellow and their prior experience. It is based on an apprentice-type model whereby each fellow is linked to one or more mentor(s) who works with the fellow to develop his/her own research and skill development program. The program is jointly sponsored by the Department of Psychiatry and Behavioral Sciences, Duke University Medical Center.

Program Director:	Joseph P. Morrissey, Ph.D.
Funding Source:	National Institute of Mental Health, NIH
Total Program Period:	07/90 07//01/90 – 06/30/18
Total Funding:	Total: $5,660,590; Direct: $5,265,739; Indirect: $394,851
Type:	Training

Dr. Sherri Green is principal investigator for a seven year regional partnership grant from the US Department of Health and Human Services Administration for Children and Families. The vision for this demonstration project was to explore the process of implementing evidence-based substance abuse treatment, trauma-related child mental health services, parenting support, and family drug court practices while building a strong community collaborative for families in a rural North Carolina county. The North Carolina Regional Partnership Grant supported program, Robeson County Bridges for Families, utilizes a comprehensive approach and assures interagency collaboration and capacity building in order to provide a full continuum of care using evidence-based practices for substance-involved families who are referred to the Department of Social Services in Robeson County. This coordinated and comprehensive approach improves the safety, permanency, and well-being of children who are in out-of-home placement or are at risk of out-of-home placement as a result of their parent's or caretaker's substance abuse, as well as improves the overall well-being and functional capacity of their families. Using propensity score weighting, we found that the participant families were less likely to experience maltreatment recurrence than the comparison group taken from similar North Carolina counties ($p<.005$). Pre– and post– test evaluations show reduced family conflict and improved affectional bonds between parents and children combined with improved parenting and communication skills. The Robeson County Bridges for Families Program serves as a model for statewide strategic planning efforts to support recovery oriented systems-of-care that enhance outcomes for children and families affected by parental and caretaker substance abuse. One of the central goals of the project is to use lessons learned to inform state policy decisions. Over 300 North Carolina child welfare, court, health, and treatment professionals benefited in the past year alone from trainings provided on evidence-based practices, medication assisted treatment, parental opiate use, and neonatal abstinence syndrome. The Robeson County Bridges for Families Program has a comprehensive process and outcomes evaluation based on primary and secondary data where evaluation staff document strategies for bridging (1) statewide discrete agency efforts and other best practices shown to be effective for positive clinical outcomes for families affected by addiction; (2) collaboration; (3) safety and permanency placement outcomes for children; (4) parent and child treatment implementation strategies; and (5) clinical outcomes, particularly for rural communities hit hardest by the emerging social and health problems associated with addiction when combined with shortages in available treatment and ancillary services. There is strong commitment

from state and local partner agencies involved to utilize evidence-based practices to improve the welfare of North Carolina families and to apply lessons learned from this project to other opportunities and efforts across the state.

Employment of Adults with Disabilities (MIG) - Ticket to Work – The Ticket to Work Program is funded by a Medicaid Infrastructure Grant (MIG) to increase work incentives and remove disincentives to work for adults with disabilities. The evaluation has three components. *First*, an analysis of linked Medicaid eligibility and claims files was conducted to generate estimates of the cost of extending Personal Assistance Services (PAS). *Second*, an analysis of linked Medicaid eligibility and claims files was conducted to generate internal and preliminary estimates of the cost of a Medicaid Buy-In (MBI) for working adults with disabilities. *Third*, the study team assisted the Division of Vocational Rehabilitation (DVR) in the development of a plan for monitoring and evaluating North Carolina efforts to increase participation in SSI work incentives. This set of analyses should serve as important tools for the DVR and the Department of Medical Assistance to develop policies that increase work incentives and remove disincentives to work for adults with disabilities.

Principal Investigator:	Kathleen C. Thomas, M.P.H., Ph.D.
Funding Source:	North Carolina Division of Vocational Rehabilitation
Total Project Period:	06/04 – 12/12
Sheps Center Funding:	Total: $305,315; Direct: $277,559; Indirect: $27,756
Secondary Program Area:	Aging, Disability, and Long-term Care

Community Reentry of Persons with Severe Mental Illness Released from State Prison – Mentally ill persons involved in the criminal justice system represent the new frontier for community mental health and disability research. The scope of this problem is truly staggering with upwards of 86,000 persons with severe mental illness (SMI) released from prisons each year with high rates of recidivism. The loss of Medicaid benefits by incarcerated offenders is thought to be a major obstacle to successful community reentry. Several states have adopted expedited Medicaid restoration programs to reconnect eligible prisoners to their benefits prior to release. Early benefit restoration can avoid disruptions in medication regimens and treatments for offenders with SMI when they are released to the community. However, no rigorous research has been conducted to establish the cost-effectiveness of these policies. This three-year study addresses these concerns by undertaking an assessment of Medicaid restoration policies in Connecticut and Washington State for released prisoners who have SMI with regard to three outcomes – subsequent recidivism, hospitalizations, and outpatient mental health and substance abuse service use.

Principal Investigator:	Joseph P. Morrissey, Ph.D.
Funding Source:	NIMH
Total Project Period:	5/15/09 – 3/31/13
Total Funding:	Total: $1,124,321; Direct: $830,343; Indirect: $293,888

Robeson County Bridges for Families – For this evaluation, the investigator will interpret data for the perinatal programs and other evidence-based programs that have been approved by the NC Practice Improvement Collaborative for statewide rollout.

Principal Investigator:	Sherri L. Green, Ph.D., L.C.S.W.
Funding Source:	Governor's Institute on Alcohol and Substance Abuse Inc.
Total Project Period:	08/01/08 – 06/20/12 (extended through 09/30/14)
Total Funding: FOR 10/12-9/30/14	Total: $97,993; Direct: $88,228; Indirect: $9,765

Perinatal and Maternal SA Initiative – Dr. Sherri Green, and her research team, will provide evaluation support, technical assistance, and policy research for the North Carolina Perinatal and Maternal Substance Abuse Initiative. Associated research activities will result in information that helps the state improve the quality of substance abuse services in North Carolina ($108,775). The contract also covers activities associated with the position of principal investigator and collection and management of evaluation data for the Robeson County Bridges for Families (RCBF) Program. Funding for activities associated with the RCBF program come from the US Department of Health and Human Services, Administration for Children and Families.

Principal Investigator:	Sherri L. Green, Ph.D., L.C.S.W.
Funding Source:	Governor's Institute on Alcohol and Substance Abuse Inc.
Total Project Period:	7/1/11-06/30/14 (changed to correct date)
Total Funding:	Total $188,628; Direct: $171,480; Indirect: $17,148

Expansion of Research Capability to Study Comparative Effectiveness in Complex Patients (CMS MAPCP Project) – The project will do the following: 1. Collaborate with NCCNC staff to create an integrated database linking three data sets maintained by the NC Department of Health and Human Services: HEARTS (state psychiatric hospital admissions), IPRS (outpatient mental health services), and Medicaid claims. Sheps Center staff will provide technical assistance in identifying relevant mental health data elements in each data system, composite measures of service use, the development of codebooks for the integrated database, and the creation of an oversight structure for managing the integrated database and making it available to the research community in NC and elsewhere. 2. Conduct a small proof of concept study to confirm the accessibility and usability of the integrated data base. This study will focus on medical homes for patients with mental illness and explore variations in primary care visits, services received and outcomes for patients with varying levels of psychiatric illness as contained in the integrated database.

Principal Investigator:	Marisa Domino, Ph.D.
Funding:	North Carolina Community Care Networks, Inc (NCCCN) via Agency for Healthcare Research and Quality
Total Project Period:	9/30/10-03/31/14
Total Funding:	Total: $45,664; Direct: $30,854; Indirect: $14,810

Implementing Trauma-Informed Services in Community Practice – Implementing Trauma-Informed Services in Community Practice is an intensive and multi-faceted curriculum proposed as part of the 25th Addiction: Focus on Women (AFOW) conference in May 2011, with support from the Substance Abuse Mental Health Services Administration Center for Mental Health Services (SAMHSA CMHS). The AFOW conference is a premiere training event in North Carolina, with both regional and national appeal to treatment providers. The overall goal of the 2011 AFOW trauma-informed curriculum supported by this grant is to provide to mental health and substance abuse professionals training in several adult and child evidence-based practice models for treating trauma and co-morbid mental health and substance use disorders, and to educate individuals and families who have trauma histories about the most effective treatments to support recovery. The Implementing Trauma-Informed Services in Community Practice learning objectives are (1) for participants to understand the different elements of trauma-informed treatment and how to use the targeted models with fidelity; (2) for trainers to explain how the trauma-informed models can be incorporated into mental health and substance abuse services; (3) for trainers to demonstrate how to effectively implement the trauma-informed models when working with culturally diverse populations, such as the African American, Latino, and Native American communities; and (4) to encourage collaboration between treatment providers, family members, and persons in recovery to work with researchers to further study how to best translate research to practice with fidelity. The CMHS Knowledge Dissemination Conference Grant will also support a one-day pre-conference event titled The Role of Families in Trauma Recovery, where advocates, family members, and volunteers who work with children and adult women, including women veterans returning from combat and their children, will have the opportunity to network through a resource fair and attend workshops focused on how families can support the trauma recovery of women and children.

Principal Investigator:	Sherri Green, Ph.D.
Funding:	SAMHSA
Total Project Period:	09/30/2010 – 09/29/2011
Total Funding:	Total: $43,334; Direct: $0; Indirect: $0

Multipayer Advanced Primary Care Practices (MAPCP) – NC is one of eight states participating in the CMS-funded MAPCP Demonstration, which examines the use of medical homes and other novel primary care practices in a multipayer environment. The Sheps Center team is leading the NC evaluation of this expansion of the award winning Medicaid medical homes program to other payers, including Medicare and private payers in NC. The evaluation will focus on claims-based outcome measures including expenditures and quality of care

Principal Investigator:	Marisa Domino, Ph.D.
Funding:	NCCCN through CMS
Total Project Period:	04/11/2011 – 3/31/12
Total Funding:	Total: $42,285; Direct $28,571; Indirect $13,714
Total Project Period:	04/01/2012 – 9/29/12 (Expansion for CER for Complex Patients)
Total Funding:	Total: $198,483; Direct $150,366; Indirect $48,117
Total Project Period:	04/1/2012 – 3/31/13

Total Funding: Total: $43,194; Direct $29,185; Indirect $14,009

Total Project Period: 04/01/13-03/31/14
Total Funding: Total: $45,664; Direct: $30,854; Indirect: $14,810

Access, Quality and Financial Implications of the Transitions of Children with Autism – A growing foundation of evidence indicates that families of children with autism experience problems of access, financial burden and difficulties paying for health care and autism services, but little evidence positions these experiences in time as they relate to critical childhood milestones. There is some evidence that childhood transitions, into, through and out of school, are associated with increased family and child turmoil. Pinning down when episodes of difficulties with access and financial burden are likely to occur over the trajectory of childhood may inform development of policies that effectively improve access to care for these children. The proposed study builds on our earlier research that identifies state-level Medicaid and private insurance strategies to improve access and reduce financial burden (Parish et al., 2011a; Parish et al., 2011b; Thomas, 2011). The proposed study will determine when families are most at risk of problems accessing care for their child and most at risk of incurring financial burden, to best target effective policy strategies. The goal of this study is to determine the access to care and financial implications of transitions of children with autism through the following aims: 1. To compile a rich source of data on children with autism and their families (n˜400) by pooling national panel data over time that describe service use and quality, expenditures and family finances, and that the investigators have used extensively; 2. To conduct multivariate analyses to examine the static and timevariant child and family factors that are associated with difficulties with access to care and financial burden; and 3. To map out the trajectory of difficulties with access, quality and financial burden for families with a child with autism over the course of childhood in order to inform development of interventions that improve access to care for these children by targeting interventions to times of greatest need. This study makes strategic use of existing national data to compile a rich source of data on children with autism and their families. The compiled data will be unique in their combination of national representativeness, timeliness, health care expenditures and quality, financial detail and two-year timeframe. Findings will provide a map of the trajectory of difficulties in access, quality and financial burden for families with a child with autism over the course of childhood in order to inform policies that promote access to care for these children. These findings have particular relevance for underserved populations whose networks of support maybe more tenuous and susceptible to limited access and burden. Findings address Healthy People 2020 objectives regarding access to care (AHS6), the quality of care received (AHS7), and children's receipt of mental health services (MHMD6) in particular (USDHHS, 2011).
Principal Investigator: Kathleen Thomas, Ph.D.
Funding: HRSA/Maternal & Child Health
Total Project Period: 09/01/2011 – 10/31/2012
Total Funding: Total: $100,000; Direct: $71,539; Indirect: $28,461

Incorporating Comparative Effectiveness Research Tools to Examine the Effect of a Reimbursement Policy Change on Local Public Health Service Outcomes This supplement proposes to enhance the methodological capabilities of a currently RWJ funded Practice-based Research Network project examining the consequences of a recent reduction of Medicaid reimbursement funding for a program that since the late 1980s has provided evidence-based case management, maternity outreach and postpartum services to low-income women and their children, and contributed to improved birth outcomes in these at-risk populations.
Principal Investigator: Marisa Domino, Ph.D.
Funding: RWJ Foundation
Total Project Period: 10/1/2011 – 3/31/2013
Total Funding: Total: $50,000; Direct $44,643; Indirect $5,357

An Approach to Capture Divergent Stakeholder Views on Future Research Needs – Involvement of a wide range of stakeholders in identifying future research needs in a clinical area is a relatively new concept, and best practices for doing so are untested and evolving. One approach has been to rely on a small group of thought-leaders, the underlying assumption being that they can represent the disparate views in their community. It is possible on the one hand that a small group of stakeholders is likely to miss important variation in opinion; on the other hand, there may be a point at which too many stakeholders creates redundancy. Given the wide range of disease and disorders characterized by divergent stakeholder opinion, developing methods that capture variation in stakeholder opinion, as a foundation for prioritizing future research needs, is critical for PCORI's mission. The proposed study seeks to develop an evidence base for determining priorities among stakeholders with divergent opinions using the treatment

of autism in childhood as an example. This will be accomplished by means of three aims: 1. Conduct an assessment of future research needs using point allocation and conjoint analysis among a small group of stakeholder thought-leaders, 2. Conduct an assessment of future research needs using point allocation and conjoint analysis based on a large web-based survey of stakeholder constituents across the US, and 3. Assess the concordance of the two approaches and their relative advantages with respect to stakeholder buy-in with the protocol and satisfaction with the outcomes. Using conjoint analysis to discover stakeholder priorities for future research needs will identify what aspects of research are valued and their relative importance, providing a metric with which to assess new research opportunities. Conjoint analysis also provides a way to identify constituencies with divergent views, providing a structure for hosting cross-constituency dialogue. Comparison of conjoint analysis with a point allocation approach will elucidate whether attention to underlying values refines priority rankings. Comparison of the approaches in small and large groups will assess the net value of the large group approach. The proposed study addresses PCORI's interests in developing methods for bringing together stakeholders to prioritize research questions, identifying stakeholder-identified gaps in comparative effectiveness knowledge and elucidating national stakeholder priorities for patient-centered outcomes research

Principal Investigator:	Kathleen Thomas, Ph.D.
Funding:	Patient-Centered Outcomes Research Institute (PCORI)
Total Project Period:	07/01/2012-12/31/2014
Total Funding:	Total: $692,734; Direct: $520,645; Indirect: $172,089

The Cultural Authority of Science in the Public Sphere: Creating Data Streams for Further Advances – Intellectual Merit. Survey research on public attitudes toward and understanding of science has been plagued by a lack of theoretical focus. To address this gap, the objective of this application is to develop new measures that previous surveys on this topic have yet to address. The rationale for this project is that it will create the foundation for a vibrant research community that can examine how social groups vary in their trust/distrust of organized science. The proposed research will accomplish the overall objective of this application by pursuing the following specific aims: Aim #1: Bring together scholars from multiple backgrounds to discuss the core issues related to the cultural authority of science, provide new perspectives on existing data, and suggest measures for future surveys. This aim will be completed by organizing an expert panel that will bring together scholars who possess specialized knowledge related to the overlap of social theory and public opinion, social studies of science, survey research on public understanding of science, current data archives, and the development of public opinion questionnaires. Robert Bell—Executive Secretary of the NSF's Survey of Public Attitudes Toward and Understanding of Science and Technology —has indicated that the NCSES division of the NSF is intensely interested in this proposal and would consider co-funding the project. Aim #2: Develop new measures and collect new data to examine the social and cultural factors that shape the cultural authority of science in the public sphere. Building on the knowledge gained from the expert panel described above, the next step will be to collect new survey data using a nationally representative sample of U.S. adults. The survey will consist of new items that previous national surveys have overlooked and will allow us to address new empirical issues and develop new measures for future NSF surveys. The proposed project will contribute an in-depth understanding of the cultural authority of science in the public sphere that both integrates theoretical ideas from social scientists and emphasizes a multidimensional approach to these issues. This contribution is significant, because it will transform future survey research as a means for studying the role of science among diverse social groups in society. Broader Impacts. The outcomes of this project will have wide-ranging benefits. The benefits to students learning and training will be twofold. First, the presentation of results students will accompany an invitation to become involved in the PI's research program. Second, the data collected in aim 2 will be made available to students for their own research. The inclusion of underrepresented groups is always a great concern to social scientists and the PI shares in the NSF's commitment in this regard. Due to the centrality of race/ethnicity, class, and gender to the proposed research, the PI is committed to recruiting individuals from these groups to participate in all aspects of the proposed research. The enhancement of infrastructure is also built directly into both aims of this study. First, the outcome of the expert panel will be a summary report that will be publically available. Second, aim 2 involves the development of a new questionnaire and dataset that will be shared with other researchers. These outcomes will directly benefit the NSF's survey and the broader social science research community. In addition, research will be presented at professional meetings and disseminated to local and national news media. Furthermore, understanding the mechanisms that the divide the public sphere will help the NSF and other scientific organizations engage the public and improve public participation in science, both among adults and children.

Principal Investigator:	Joseph Morrissey, Ph.D./Gordon Gauchat, Ph.D.
Funding:	National Science Foundation

Total Project Period: 08/01/2012 – 07/31/2014
Total Funding: Total: $113,999; Direct: $79,824; Indirect: $34,175

Program on Rural Health Research
George 'Mark' Holmes, Ph.D., Program Director

The Rural Health Research Program (RHRP) is built on the forty-four year history of rural health services research at the University of North Carolina's Cecil G. Sheps Center for Health Services Research. The program draws on the experience of a wide variety of scholars and researchers, analysts, managers, and health service providers associated with the Center. The Program also has an ongoing partnership with the NC Foundation for Advanced Health Programs, Inc. and the Office of Rural Health and Community Care in the NC Department of Human Resources.

The RHRP is working to address problems in rural health care delivery through basic research, policy-relevant analyses, the geographic and graphical presentation of data, and the dissemination of information to organizations and individuals in the health care field who can use this information for policy or administrative purposes. The Program's research involves primary data collection, analysis of large secondary data sets, and in-depth policy analysis. The Program brings together a diverse, multidisciplinary team including clinicians in medicine, nursing, pharmacy, allied health, mental health, and other professions and disciplines along with experts in biostatistics, geography, epidemiology, sociology, anthropology, and political science to address complex social issues affecting rural populations.

The Program's present policy analysis and research agenda focuses on the following substantive areas: measures of underservice, Medicare reimbursement policy, Medicaid, and access to care. The Program also has an active dissemination component and emphasizes the use of geographic methods in research.

In 2011/12 the RHRP successfully recompeted its federally designated Rural Health Research Center and Rural Rapid Response grants, both through HRSA's Office of Rural Health Policy. These grants support the work of the NC Rural Health Research & Policy Analysis Center (NC RHR&PAC). The NC RHR&PAC has been a continuously funded Rural Health Research Center for 24 years. The Center's portfolio of work focuses on Federal insurance programs (Medicare and Medicaid) and their effect on rural populations and providers. Specific projects this year examined utilization of Medicare's Rural Health Clinic reimbursement program, rural hospitals' experience with swing beds, and an analysis of patterns of care-seeking behavior in rural communities. Under the Rapid Response award, NC RHR&PAC provides quick turn-around analysis of rural-focused data and conducts issue-specific rural research studies in response to emerging policy issues.

During this year, the RHRP also continued to receive federal support for its work on the Medicare Rural Hospital Flexibility Program Evaluation monitoring team which focuses on Critical Access Hospitals, as well as receiving state support to provide technical assistance to the NC Office of Rural Health and Community Care.

The following research projects were active during the year:

Medicare Rural Hospital Flexibility Program Evaluation – The Sheps Center's current role in this evaluation focuses on three areas. 1) *Development of a Financial Performance Measurement System:* This project uses research and expert opinion to select dimensions and indicators of financial performance, develop appropriate bases or methods of peer comparison, investigate the relationship between quality of care and financial performance, and identify characteristics of high performing Critical Access Hospitals (CAHs). 2) *CAH Conversion Tracking:* The Sheps Center continues its work tracking CAH conversions. 3) *Quality Financial Relationships:* This joint project with the University of Minnesota will investigate the relationship between CAH financial performance and quality of care.

Principal Investigator: Mark Holmes, Ph.D.
Funding Source: Office of Rural Health Policy, HRSA (subcontract with the University of Minnesota)
Total Project Period: 09/03 – 08/31/13 (extended through 08/31/14)
Total Funding: Total: $1,480,000; Direct:$1,019,747; Indirect: $460,253

Secondary Program Area: Health Care Economics and Finance

North Carolina Rural Health Research and Policy Analysis Center (NC RHR & PAC) – Extending and expanding the work of the North Carolina Rural Health Research Program at UNC-CH, this project primarily focuses on Federal insurance programs (Medicare and Medicaid) and their effect on rural populations and providers. In addition, faculty and professionals working with the NC RHR & PAC respond to short-term queries using the unique availability of multiple national and special datasets to investigate key rural health policy issues. The following six projects are under investigation: 1) rural health clinics: Medicare & Medicaid profile, 2) the 21st century rural hospital: outpatient services and access to care, 3) hospital readmission following care in a swing bed, 4) swing beds versus skilled nursing facilities: Medicare expenditures for episodes of care, 5) early rural experiences of changes to Medicaid, 6) identifying limitations of prospective payment system (PPS) reimbursement for rural hospitals. The NC RHR & PAC has also been designed to have staff, data, and resources to address other issues as they become salient.

Principal Investigator: Mark Holmes, Ph.D.
Funding Source: Office of Rural Health Policy, HRSA
Total Project Period: 08/15/04 – 08/31/16
Total Funding: Total: $5,280,000; Direct: $3,622,008; Indirect: $1,657,992
Secondary Program Areas: Aging, Disability, & Long-Term Care & Health Care Economics & Finance

Rapid Response to Requests for Rural Data Analysis and Issue Specific Rural Research Studies – The North Carolina Rural Health Research & Policy Analysis Center (NC RHR & PAC) of the Cecil G. Sheps Center at the University of North Carolina proposes to provide rapid response for rural-focused data analysis and to conduct issue-specific rural research studies in response to emerging policy issues. The NC RHR & PAC is uniquely qualified to provide this service, as it builds on previous and current work conducted during twenty-one years as a Federal Office of Rural Health Policy (ORHP) Rural Health Research and Policy Analytic Center. The NC RHR & PAC has created a national identity as a rural center that can quickly respond to requests for data analysis, and one that produces rapid turn-around policy-relevant research and analysis to inform the rural health policy community. The NC RHR & PAC will partner in this effort with the Rural Policy Research Institute Center for Rural Health Policy Analysis. In order to ensure that rural policy is designed to protect and improve the health of rural residents, data on the unique characteristics of rural people, health care providers, and the health care infrastructure, and the potential impact of policy and challenges rural areas face in health care delivery must be made available to policy makers, rural organizations and ORHP. The maintenance of data archives that are sufficiently broad to be able to address whatever issues surface requires many data sets, programmer experience using them, statistical knowledge, understanding the geographic issues surrounding different definitions of rural and levels of geography, how to merge data and use GIS, and substantial computing capacity. Organizations and agencies whose task is to focus on rural health policy do not have this capacity, and must rely on organizations that do. The NC RHR & PAC and other members of the project team have been serving this role for the rural policy community for a number of years, and propose to continue to do so. The development and evolution of rural health policy occurs in a rapidly changing context, and the support of rural health policy can also require issue-specific studies involving greater time and resources and more complex study design than rapid response data analysis. Under this cooperative agreement, the NC RHR & PAC, with its collaborator, will also provide these vital services to individuals and organizations involved with rural health policy.

Principal Investigator: George Pink, Ph.D.
Funding: HRSA
Total Project Period: 09/01/10 – 08/31/16
Total Funding: Total: $350,000; Direct: $286,757; Indirect: $63,243

Technical Assistance to the ORHCC – The purpose of this contract is to provide financial support for technical assistance and consultation which will assist in fulfilling the ORHCC mission.

Principal Investigator: Andrea Radford, Dr.P.H.
Funding: NC Office of Rural Health and Community Care
Total Project Period: 07/01/12-08/31/13
Total Funding: Total: $34,395; Direct: $31,268; Indirect: $3,127

Center for Healthy North Carolina Evaluation – Dr. Radford will serve as the Consulting Evaluator for the NC Public Health Foundation (NCPHF) Center for Healthy North Carolina. Her major responsibilities will include the following: 1. Assist NCPHF staff in conducting a gap analysis of HNC2020 technical assistance options and developing a set of recommendations to guide the development of state, regional, and local focus areas 2. Develop evaluation metrics in collaboration with NCPHF staff as needed in response to recommendations from the NC Institute of Medicine's Evidence Based Strategies for Public Health Task Force. 3. Work with NCPHF and DPH staff to develop a multi-year qualitative evaluation plan including process and outcome measures for use in evaluating the Center for Healthy North Carolina and the programs/initiatives implemented by the Center's community partners. 4. Consult with key community partners (as identified by NCPHF) to develop evaluation plans for local HNC 2020 effort and to maximize the utilization of available data. 5. Meet with NCPHF staff as needed to discuss data, analyses, program needs and modify deliverables as needed.

Principal Investigator:	Andrea Radford, Dr.P.H.
Funding:	NC Public Health Foundation
Total Project Period:	07/01/12-09/30/13
Total Funding:	Total: $33,000; Direct: $30,000; Indirect: $3,000

Program on Women's Health Services Research

Wendy R. Brewster, M.D., Ph.D., Director

The Center for Women's Health Services Research, which emphasizes research related to improving the delivery of health services to women, is part of the UNC-Chapel Hill Center for Women's Health Research. The Center provides research services for women's health investigators to optimize research quality and improve the health of women. Together, they are working to serve the women of North Carolina and the nation by:

- documenting the health status of women,
- studying models for improving care,
- evaluating promising new treatments, and
- developing effective prevention programs.

The Center, founded in March 2000, is a joint effort of the School of Medicine and the Cecil G. Sheps Center for Health Services Research. Experienced staff and start-to-finish resources are available to assist UNC investigators plan, launch, and conduct women's health research. The Center's operating principle is to provide connections among research peers, foster career development and infrastructure, and assure the visibility of women's health research.

No specific program was within Women's Health Services Research this year, although many of the perinatal programs designated in the Child Health Program overlap substantially.

Health Services Research in General

Although not directly related to one of the Center's program areas, the following research projects were active in the Program during the past year:

UNC-CH Training Program in Health Services Research – The program offers academic training and directed research experience in the application of the concepts and research methods of a number of disciplines to the study of the organization, financing, utilization, provision, and effectiveness of personal health services. Predoctoral training is offered in collaboration with the Departments of Epidemiology, Health Policy and Administration, Health Behavior, and Maternal and Child Health at the UNC-CH School of Public Health. Upon completion of this program, both pre-doctoral and post-doctoral fellows have a generalized background in contemporary health policy issues, the historical significance of these issues, a solid understanding of the most common statistical and study design methods applicable to health services research and policy analysis, a set of materials to use as supporting references in their own work, experience in the design and conduct of health services research under supervision of at least one mentor with expertise in relation to the subject and methods being used, and a set of data ready to be published. This training program, recently refunded, has been continuously supported since 1989.

Program Director: Timothy S. Carey, M.D., M.P.H.
Funding Source: National Research Service Award, through the Agency for Healthcare Research and Quality
Total Program Period: 09/89 – 06/18
Total Funding: Total: $2,513,809; Direct: $2,357,763; Indirect: $156,046
Type: Training

UNC Post-Doctoral Training Program in Comparative Effectiveness Research – This program will build on over 20 years of collaboration between the Sheps Center and AHRQ in pre and post-doctoral training in health services research. CER is a growing interdisciplinary activity, drawing from the disciplines of clinical medicine, epidemiology, health policy and pharmacy. Our society has an urgent need to evaluate the best strategies of diagnostic testing and treatment so as to improve care for our citizens. The components of CER include: evaluation of current evidence through systematic reviews; observational studies and analyses such as pharmacoepidemiology and modeling research; conduct of large effectiveness trials; and dissemination and implementation activities. Fellows will be expected to participate in ongoing content and methods research. Didactic work will include degree granting programs through UNC-CH's M.P.H. or MS program for clinicians. Ph.D.'s will enroll in selected courses. Specialized courses in CER methods are included in these curricula, as well as elsewhere on campus. Fellows will participate in a weekly integrative seminar, as well as a weekly seminar on CER methods. Supported by ARRA funds, this was a one-time award.
Principal Investigator: Timothy Carey, M.D., M.P.H.
Funding: AHRQ
Total Project Period: 07/01/10 – 06/30/13
Total Funding: Total: $814,817; Direct: $761,489; Indirect: $53,328

Primary Care Research Fellowship – The goal of this fellowship is to train primary care physicians for research-focused academic careers. This two to three year fellowship provides participants with the knowledge, skills, and experience to plan, fund, complete and disseminate quality research. The curriculum includes course work in the UNC School of Public Health, seminars in the campus' K-30 sponsored research curriculum, weekly works-in-progress seminars, in-depth hands-on involvement and leadership in research projects, and mentoring by clinical and research faculty. Housed within the Sheps Center, the program also receives support from the primary care clinical departments of the UNC School of Medicine. The program was recently funded for another 5 years.
Principal Investigator: Donald E. Pathman, M.D., M.P.H.
Funding Source: National Research Service Award, through the Bureau of Health Professions, HRSA
Total Project Period: 07/98 – 06/13
Total Funding: Total: $3,101,411; Direct: $2,908,110; Indirect: $193,301
Type: Training

National Information System on Health Services Research (HSRProj) – This project develops and maintains a health services research information system that collects available information on ongoing research projects funded by both public and private sector agencies for the National Library of Medicine. Through HSRProj, individuals can access information about ongoing health services research projects before results are available in published form.
Principal Investigator: Christiane Voisin, M.S.L.S.
Funding Source: National Library of Medicine, NIH (through Academy Health and The Foundation for Health Services Research)
Total Project Period: 05/04 – 7/13 (on-going)
Total Funding: Total: $1,729,092; Direct: $1,173,093; Indirect: $555,999
Type: Technical Assistance

Prevention/Care Management Technical Assistance Center (Master Task) – UNC Sheps shall furnish personnel, information and materials as reasonably necessary, and shall devote reasonable business efforts to assist AIR in developing and preparing sections of the PCM TAC RFTO Proposal(s) and any modifications thereto related to NCQA's relevant Scope of Work. • UNC Sheps shall work with AIR to determine whether or not to submit proposals to future RFTO bids. • UNC Sheps will work with AIR on any future work that warrants their area of expertise.
Principal Investigator: Russell Harris, M.D., M.P.H.

Funding: American Institutes for Research via AHRQ
Total Project Period: 08/01/10 – 09/29/14
Total Funding: Total: $0; Direct: $0; Indirect: $0

Support of Transparency Efforts by the USPSTF – The overall purpose of this task order is to support AHRQ's Prevention/Care Management (PCM) Portfolio by expanding transparency efforts of AHRQ in its role as supporter and convener of the USPSTF. Specific tasks supported by UNC Chapel Hill key and other personnel: Task 1. Administration, Task 2. Process Development, Task 3. Reviewing and Synthesizing Public Comments, Task 4. Communication, Task 5. Product Dissemination.
Principal Investigator: Russell Harris, M.D., M.P.H.
Funding: American Institute for Research via AHRQ
Total Project Period: 09/30/10 – 03/22/14
Total Funding: Total: $692,318; Direct: $467,783; Indirect: $224,535

Carolina Advance Health Evaluation – The purpose of these activities will be to provide technical assistance to TPN and the establishment and monitoring of CAH. 1) Planning and evaluation of patient satisfaction data. 2) Qualitative evaluation of organization and modification of CAH. 3) Assistance in quality of care evaluation.
Principal Investigator: Timothy S. Carey, M.D., M.P.H.
Funding: Triangle Physician Network, LLC
Total Project Period: 09/01/11-08/31/14
Total Funding: Total: $141,709

CONTRACT AND GRANT PROPOSAL SUCCESS

Tables 1.1 and 1.2 summarize the status of proposals submitted and new proposals, supplements/addenda, and resubmissions approved for funding for the 2012-13 fiscal year.

Table 1.1
SUMMARY OF PROPOSAL SUBMISSION AND SUCCESS
July 1, 2012-June 30, 2013
Outcome as of August 31, 2013

Status	Initial Submissions	Supplements Addenda	Continuation Applications	Resub-missions	TOTAL
Total Proposals Submitted	85	5	16	11	117
Funding Notification Received:	73	5	16	10	104
Funding Pending*	0	0	0	0	0
Funded	36	4	16	3	59
Not Funded	37	1	0	7	45
No Decision	11	0	0	0	11
Proposals Withdrawn	1	0	0	1	2

* Verbal notification of funding received, pending official notification.

Table 1.1: This fiscal year (2012-13), the majority of the proposals continued to be initial submissions of new proposals (85), while 16 were requests for continuation funding for projects already funded, 5 was a request for supplemental funds, and 11 were resubmission of a proposal with a priority score too high for initial funding.

Table 1.2
SUMMARY OF FUNDING FOR NEW PROPOSALS, SUPPLEMENTS/ADDENDA, AND RESUBMISSIONS APPROVED FOR FUNDING
Submitted July 1, 2012-June 30, 2013 or Submitted in Previous Years but Final Funding Decisions Not Made by July 1, 2013
(Results as of August 31, 2013)

Status	Number	Percent Funded
Approved for Funding:		
Submitted This Year	117	
Submitted Previous Years	42	
Total	159	
Funded (including verbal notification) of proposals with funding decision:		
Submitted This Year	59	50 %
Submitted Previous Years	25	59 %
Total	84	53 %

Table 1.3
SOURCES AND AMOUNTS OF EXPENDED FUNDS BY FUNDING SOURCE
(Excluding Indirect Dollars Not Coming to the Center)
July 1, 2012 - June 30, 2013

Source	July 1, 2012-June 30, 2013 Amount		Percent
NIH:	$4,143,510		23.1%
NCCAM	$3,735	(0.0%)	
NCI	$252,009	(1.4%)	
NCMHD	$1,090,799	(6.1%)	
NHLBI	$47,451	(0.3%)	
NIA	$705,876	(3.9%)	
NIAMS	$992,293	(5.5%)	
NINR	$220,999	(1.2%)	
NLM	$156,353	(0.9%)	
NEI	$427,548	(2.4%)	
NIMH	$246,447	(1.4%)	
Other Federal Agencies:	$8,808,423		49.2%
AHRQ	$7,158,690	(40.0%)	
DOD	$0	(0.0%)	
HRSA	$1,315,462	(7.3%)	
MEDPAC	$17,334	(0.1%)	
DHHS	$316,937	(1.8%)	
Private Foundations	$709,081		4.0%
Other Organizations*	$1,456,853		8.1%
PCORI	$145,473	(0.8%)	
State Agencies	$802,724		4.5%
State Funds (including AHEC)	$1,231,701		6.9%
Trust Funds	$60,142		0.3%
Indirect/Overhead Funds	$688,851		3.8%
Subtotal	$17,901,285		100.0%
NC•IOM:	$171,713		
State Funds	$171,713	(100%)	
Trust Funds	$0	(0.0%)	
TOTAL	**$18,072,998**		

* Other Organizations were primarily professional and disease-specific organizations, corporations, and state entities outside of North Carolina.

Figure 1.1
SOURCES AND AMOUNTS OF SUPPORT BY FUNDING SOURCE AND YEAR
(Excluding Indirect Dollars Not Coming To the Sheps Center and
NC•IOM Dollar Not Coming Through the Sheps Center)
1984-2013

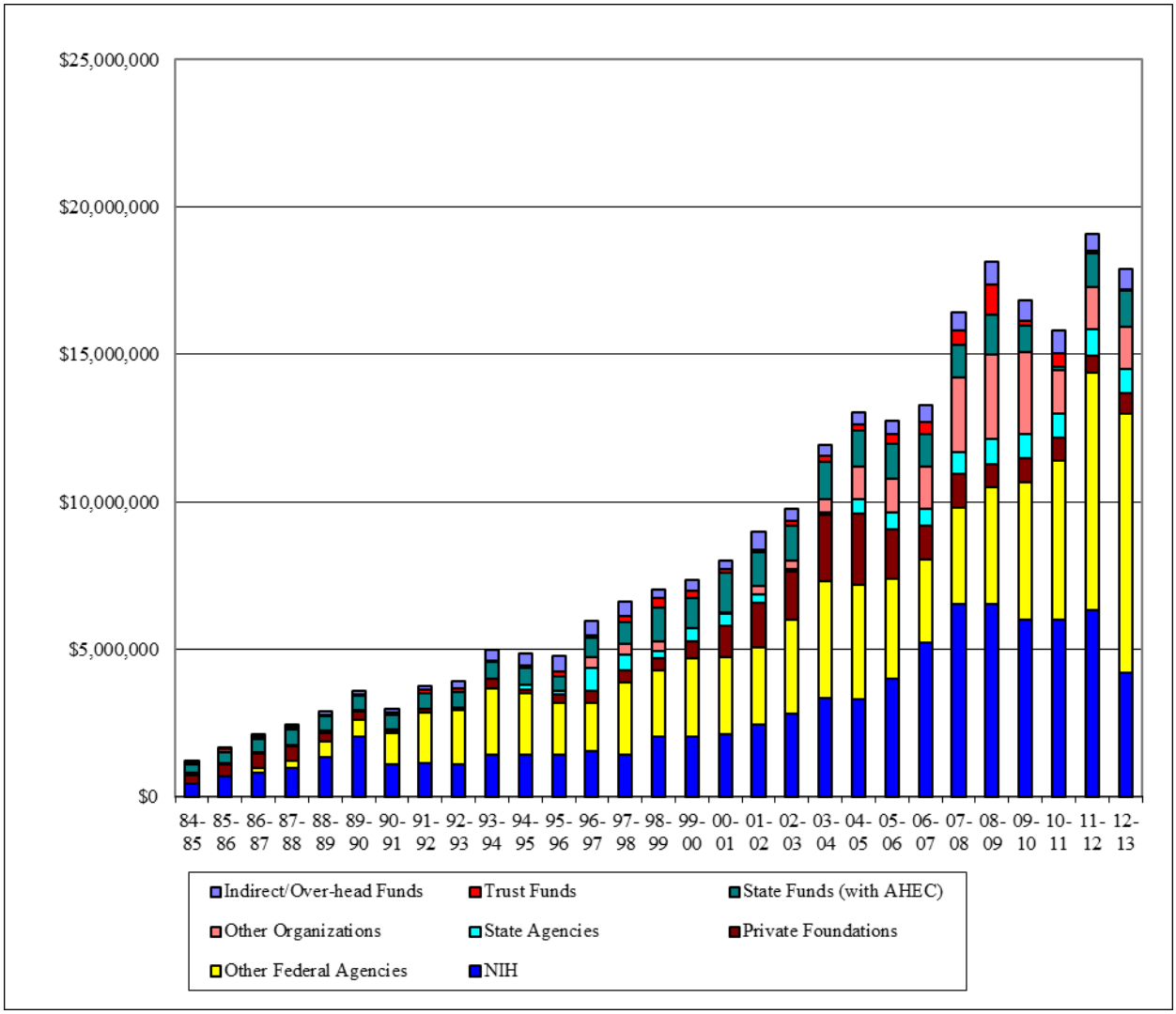

Table 1.4
CECIL G. SHEPS CENTER FOR HEALTH SERVICES RESEARCH TABLE
UPDATE ON NEW FUNDING FY 13-14
July 1, 2013 – June 30, 2014
(funding status reported for submissions July 1, 2013 to October 31 , 2013)

(number of proposals)	Year One Award	Total Award
Funded (24)	$3,224,834	$9.283.259
Approved and Waiting Official Notice (1)	$97,266	$97,266
Still Outstanding (13)	$1,225,992	$2,245,482

SEMINARS/WORKSHOPS

All seminars/workshops are open to the public and were planned and sponsored or co-sponsored through the Sheps Center during this past fiscal year. Unless otherwise noted, all seminars took place at the Sheps Center. The following is a description of the seminars:

AGENCY FOR HEALTHCARE RESEARCH AND QUALITY (AHRQ)/ NATIONAL RESEARCH SERVICE AWARD (NRSA) SEMINARS

Fall 2012 (Introductions and The PCORI methods report, 'Methods leaders thinking out loud')

Patient centeredness
Ethan Basch, M.D.
Department of Medicine
UNC-CH School of Medicine

Prioritizing patient-centered outcomes research
Tim Carey, M.D., M.P.H.
Department of Medicine
UNC-CH School of Medicine

The translation framework
Morris Weinberger, Ph.D.
Department of Health Policy and Management
UNC-CH School of Public Health

Causal inference
Til Stürmer, M.D., M.P.H., Ph.D.
Department of Epidemiology
UNC-CH School of Public Health

Data networks
Bill Carpenter, Ph.D.
Department of Health Policy and Management
UNC-CH School of Public Health

Heterogeneity of treatment effect
Mark Holmes, Ph.D.
Department of Health Policy and Management
UNC-CH School of Public Health

Diagnostic tests
Brad Gaynes, M.D., M.P.H.
Department of Psychiatry
UNC-CH School of Medicine

SPRING 2013 (Career Development and Patient Reported Outcomes)

Determining future research needs
Tim Carey, M.D., M.P.H.
Department of Medicine
UNC-CH School of Medicine

The money river and budgeting
Tim Carey, M.D., M.P.H.
Department of Medicine
UNC-CH School of Medicine

The job talk
Morris Weinberger, Ph.D.
Department of Health Policy and Management
UNC-CH School of Public Health
Shula Bernard, Ph.D.
RTI

Career development awards
Tim Carey, M.D., M.P.H.
Department of Medicine
UNC-CH School of Medicine
Morris Weinberger, Ph.D.
Department of Health Policy and Management
UNC-CH School of Public Health

Consumer Assessment of Healthcare Providers and Systems (CAHPS)
Mark Holmes, Ph.D.
Department of Health Policy and Management
UNC-CH School of Public Health

Out of pocket expenditures
Marisa Domino, Ph.D.
Department of Health Policy and Management
UNC-CH School of Public Health

Patient Reported Outcomes Measurement Information System (PROMIS) Pediatrics
Darren DeWalt, M.D., M.P.H.
Department of Medicine
UNC-CH School of Medicine

Adaptation of instruments for different cultures
Dan Reuland, M.D., M.P.H.
Department of Medicine
UNC-CH School of Medicine

UNC-CH/DUKE PROGAM IN MENTAL HEALTH SERVICES
& SYSTEMS RESEARCH SEMINAR SERIES

The location of these seminars alternates between the Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill and the Department of Psychiatry and Behavioral Sciences, Duke University.

Fall 2012
The Impact of National Health Reform on People with Mental Disorders
Samuel H. Zuvekas, Ph.D.
Economist
Center for Financing, Access, and Cost Trends
Agency for Healthcare Research and Quality

The Changing Face of America: Meeting the Mental Health Care Needs of Recent Immigrants
Margarita Alegría, Ph.D.
Director
Center for Multicultural Mental Health Research
Cambridge Health Alliance & Harvard Medical School

Adaptive Mental Health Intervention Research: Sequential Multiple Assignment Randomized Trials (SMART)
Scott Compton, PhD

Assistant Professor
Department of Psychiatry and Behavioral Sciences
Duke University School of Medicine

Where Do We Draw the Line? The Ethics of Diagnosing Dementia (Alzheimer's Disease)
Dan Blazer, MD, PhD
Professor
Department of Psychiatry and Behavioral Sciences
Duke University

Current Advances in Public Perceptions of Science: Credibility and Legitimacy
Gordon Gauchat, PhD
3rd Year Postdoctoral Fellow
Cecil G. Sheps Center for Health Services Research, UNC-CH

Early Drinking: Daily Triggers and Life-Long Consequence
Candice Odgers, PhD
Associate Professor, Public Policy and Psychology and Neuroscience; Associate Director, Center for Child and Family Policy
Duke University

Individual Resiliency Training in the NIMH RAISE study
David Penn, PhD
Associate Director of Clinical Training
Department of Psychology
University of North Carolina-Chapel Hill

Spring 2013
Resilience: A Public Health Matter
Sean Sayers, PhD
2nd Year Postdoctoral Fellow
Cecil G. Sheps Center for Health Services Research, UNC-CH

Shifting Sands of Institutional vs. Community Treatment for NC's SPMI Population
Michael Lancaster, MD
Director, Behavior Health Program
North Carolina Community Care, Inc

Moving From Local Management Entity to a Regional Managed Care Organization
Robert Robinson, Chief Operating Officer
Amanda Graham, Medicaid Program Director
Alliance Behavioral Healthcare
Durham, NC

Strategies and Resources for Estimating Psychiatric Bed Needs
Charles E. Holzer III, PhD
Independent Higher Education Professional
Professor (ret.),
University of Texas Medical Branch-Galveston

Is Health Reform Good for Psychiatry?
Steven S. Sharfstein, M.D.
President and CEO
Sheppard Pratt Health System
Baltimore, MD

Alcohol Use, Domestic Violence, and Suicidality in a Developing Amazonian Kichwa Community in Ecuador: Local Challenges for Global Mental Health Research and Practice
Tod Swanson, PhD
Senior Sustainability Scientist, Global Institute of Sustainability
Associate Professor of Religious Studies, Arizona State University
Director, Andes and Amazon Field School, Napo, Ecuador

Planning By The Numbers: A Tool for Mental Health Services Research
H. Stephen Leff and Steven Noyes
Health Services Research Institute, Inc.
Cambridge, MA

MH/SA Services Research from a 'Genetics & Society' Perspective: Work in Progress
Michele Easter, PhD
1st Year Postdoctoral Fellow
Department of Psychiatry and Behavioral Sciences
Duke University

Using Multi-Sector Service Delivery System Data and Unobserved Heterogeneity to Improve Outcomes for Vulnerable Populations: An Example with Neural Networks to Reduce Recurrent Maltreatment
Jennifer Jolley, PhD
1st Year Postdoctoral Fellow
Cecil G. Sheps Center for Health Services Research, UNC-CH

DANUBE UNIVERSITY AT KREMS-RTI INTERNATIONAL-UNC AT CHAPEL HILL METHODS (DUK-RTI-UNC) SEMINAR SERIES FOR SYSTEMATIC REVIEWS AND META-ANALYSES

Fall 2012
Critical Thinking in Evidence-based Practice: Recognizing and Avoiding Errors in Reasoning
Laura Morgan (RTI)

PCORI Methodology Manual: An Overview
Cindy Feltner (UNC)

PROSPERO: putting the optimum in, to get the optimum out
Alison Booth (Prospero)

Spring 2013
Sensitivity analysis of a meta-analysis with unpublished but registered studies
Noory Kim (UNC)

Systematic Review Data Repository (SRDR): Using a new web-based tool to extract and archive systematic review data
Nira Hadar (Brown Evidence-based Practice Center)

Qualitative Comparative Analysis: Potential Use in Reviews of Complex Health Interventions
Leila Kahwati (RTI)

Why you shouldn't use 'Last Observation Carried Forward' (LOCF) for missing data
Michael Weber, Takuya Yanagida (Medical University of Vienna)

TRIANGLE HEALTH ECONOMICS WORKSHOP SERIES
Attendance is open to all interested persons. Regular attendees included faculty and doctoral students from UNC academic departments (Health Policy and Management, Economics, Public Policy, and Pharmaceutical Policy and Evaluative Sciences), Sheps Center fellows, faculty and students from Duke University departments (Economics, Public Policy, the Business School, and the Center for Health Policy and Law), Research Triangle Institute

researchers, and, on occasion, faculty from North Carolina State University, East Carolina University, the University of North Carolina at Greensboro.

Fall 2012
Do couples self-insure? The effect of informal care on a couple's labor supply
Courtney Van Houtven
Duke/Durham VA

Estimating person-centered treatment effects using instrumental variables: Application to prostate cancer treatments
Anirban Basu
University of Washington

Is there a Link Between Foreclosure and Health?
Janet Currie
Princeton

The virtuous tax: Lifesaving and crime-prevention effects of the 1991 federal alcohol-tax increase
Phil Cook
Duke

Assessing Risk and Protective Factors for Suicide in US Army Soldiers: The Army STARRS Study
Michael Schoenbaum
National Institute of Mental Health

The impact of homicides in northern Mexico on healthcare access for US residents
Kimberley Geissler
PhD Candidate, Health Policy and Management

What is the Full Cost of Body Mass in the Workplace? A Dynamic Stochastic Model of Occupational Choice, Hours Worked, and Body Weight Over the Life Cycle
Matt Harris
PhD Candidate, UNC Economics

Spring 2013
Can Value Based Insurance Design (VBID) Bend the Cost Curve?
Matt Maciejewski
Duke/Durham VA

An Ounce of Prevention at Half Price: Evaluating a Subsidy on Health Investments
Matt White
Johns Hopkins

Organizational Structure and Moral Hazard among Emergency Department Physicians
David Chan
MIT

Disentangling the Contemporaneous and Life-Cycle Effects of Body Mass on Earnings
Donna Gilleskie
UNC Economics

Beyond the "Marginal Patient": Addressing Heterogeneous Treatment Effects in Observational Outcomes Research
Jeff Federspiel
PhD Candidate, Health Policy and Management

Throwing the Baby out with the Drinking Water: Unintended Consequences of Arsenic Mitigation Efforts in Bangladesh
Erica Field
Duke Economics

Sally's DC Wild Adventure: Costs and Benefits of Medicare Hospice Use
Sally Stearns
UNC

The Effect of Medicaid Payment Rates on Access to Dental Care Among Children
Thomas Buchmueller
University of Michigan

Heterogeneous Effect of Prospective Payment System on Hospital's Volume and Quality
Dmitry Shapiro
UNC Charlotte

In addition, the Center frequently hosts state and national meetings on research and policy issues.

PUBLICATIONS

This past year affiliated research staff working on Center-related projects published 263 articles, book chapters, or other reports. This included 219 articles in peer-reviewed journals, 44 other publications, including annual reports, briefs, data books, evidence reports, fact sheets, reviews, and working papers.

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Beaubrun AC, Brookhart MA, Sleath B, Wang L, Kshiersagar AV. Trends and Variations in Intravenous Vitamin D Use among Hemodialysis Patients in the United States. Ren Fail. 2013;35(1):1-8.

Beeber, A.S., & Zimmerman, S. (2012). Adapting the Family Management Styles Framework (FMSF) for families caring for older adults with dementia. Journal of Family Nursing,18(1), 123-145.

Beil, H, RG Rozier, JS Preisser, SC Stearns, JY Lee. "Effect of Early Preventive Dental Visits on Subsequent Dental Treatment and Expenditures." Medical Care. 2012 Sep;50(9):749-56.

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Bhat AA; Darren A. Dewalt; Catherine R. Zimmer; Bruce J. Fried; Pavani Rangachari; Yoon Ho Seol; Leigh F. Callahan. Associations between low literacy and health status measures: Cross-sectional analyses of two physical activity trials. Journal of Health Communication. 2012;17(2):230-245.

Birken SA, Lee SY, Weiner BJ, Chin MH, Schaefer CT. Improving the effectiveness of health care implementation: middle managers as change agents. Med Care Res Rev. 2013 Feb;70(1):29-45.

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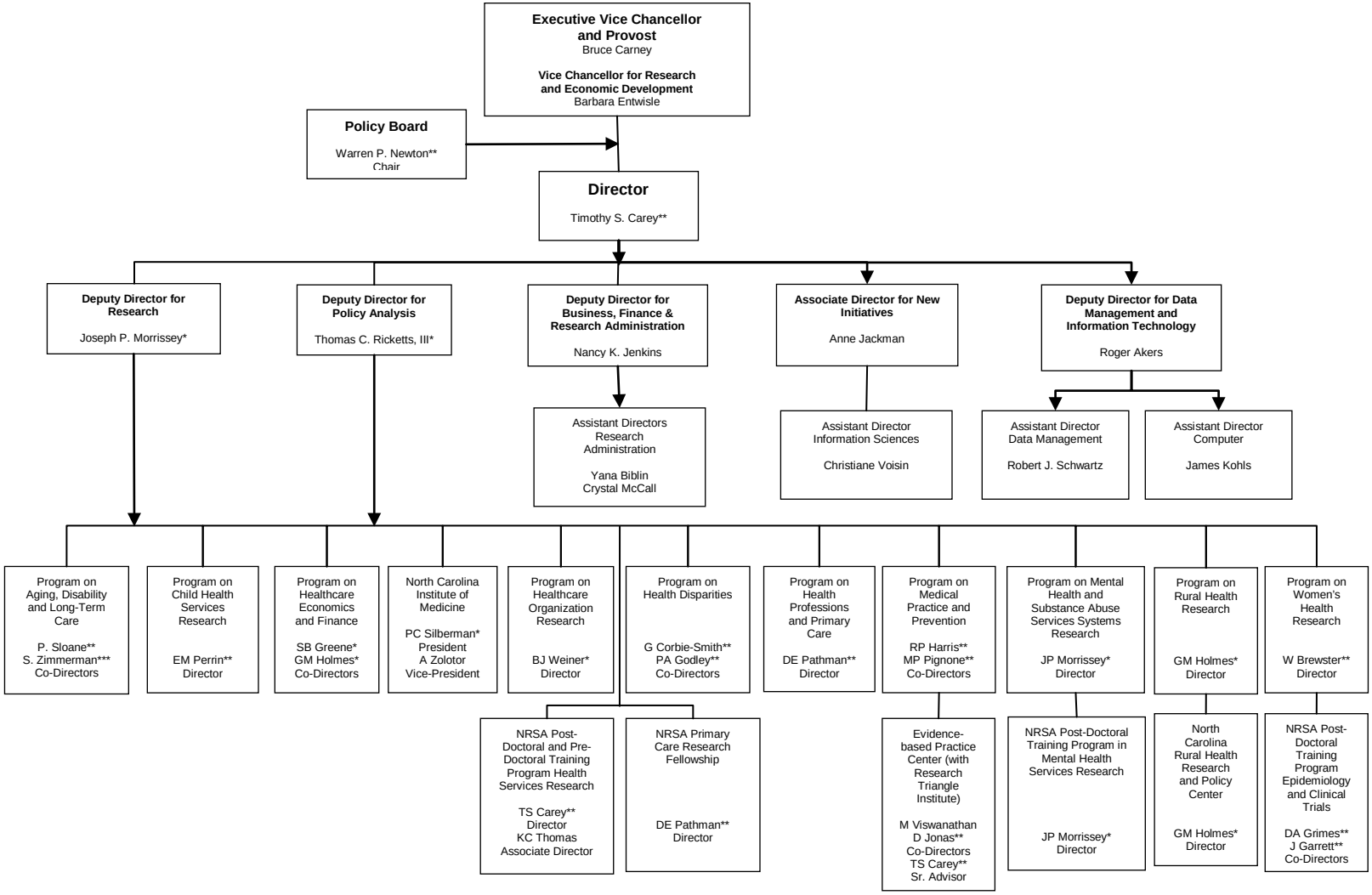
APPENDIX A

Organizational Chart
Cecil G. Sheps Center for Health Services Research
University of North Carolina at Chapel Hill

Organizational Chart of the Cecil G. Sheps Center for Health Services Research
University of North Carolina at Chapel Hill



* Gillings School of Global Public Health Faculty Appointment, UNC-CH
** School of Medicine Faculty Appointment, UNC-CH
*** School of Social Work Faculty Appointment, UNC-CH

SHEPS CENTER
12/11/12

APPENDIX B

Policy Board Members
Cecil G. Sheps Center for Health Services Research
University of North Carolina at Chapel Hill

2012-2013
POLICY BOARD MEMBERS
Cecil G. Sheps Center for Health Services Research

The Cecil G. Sheps Center for Health Services Research is an organizational unit of the University's Division of Health Affairs and, as such, the Center's Director is responsible to the Vice Chancellor for Health Affairs. Oversight responsibility for the Center is vested in a Policy Board whose members include senior faculty and administrators from the five health science schools, as well as representatives of the health services community at large.

Thomas Bacon, Ph.D.
Associate Dean and Director
Area Health Education Centers Program
School of Medicine

Tim Carey, M.D., M.P.H.
Professor of Medicine
Department of Medicine
Director, Cecil G. Sheps Center for Health Services Research

Daniel Clarke-Pearson, M.D.
Professor and Chair
Department of Obstetrics and Gynecology
School of Medicine

Jo Ann Earp, Sc.D.
Professor and Chair
Department of Health Behavior and Health Education
School of Public Health

Ronald J. Falk, M.D.
Professor and Division Chief
Division of Nephrology and Hypertension
School of Medicine

Michael R. Kosorok, Ph.D., MM
Professor and Chair
Department of Biostatistics
School of Public Health

Peggy Leatt, Ph.D.
Professor and Chair
Department of Health Policy and Administration
School of Public Health

Jessica Y. Lee, DDS., M.P.H., Ph.D.
Associate Professor
School of Dentistry

Barbara Mark, RN, Ph.D.
Professor
School of Nursing

Warren P. Newton, M.D., M.P.H. (Chair)
Professor and Chair
Department of Family Medicine
School of Medicine

Andrew F. Olshan, Ph.D.
Professor and Chair
Department of Epidemiology
School of Public Health

Herbert B. Peterson, M.D.
Professor and Chair
Department of Maternal and Child Health
School of Public Health

David Rubinow, M.D.
Professor and Chair
Psychiatry
School of Medicine

Marschall S. Runge, M.D., Ph.D.
Professor and Chair
Department of Medicine
School of Medicine

George F. Sheldon, M.D.
Dr. Zack D. Owens Distinguished Professor
Department of Surgery
School of Medicine

Betsy Sleath, Ph.D.
Professor and Chair
Division of Pharmaceutical Policy
School of Pharmacy

Alan D. Stiles, M.D.
Professor and Chair
Department of Pediatrics
School of Medicine

Hugh H. Tilson, M.D., Dr.P.H.
Adjunct Professor, PHLP
Public Health Leadership Program

Sheps Center:
Roger Akers, Deputy Director, Data Mgt and Info
Anne Jackman, Associate Director, Operations
Nancy Jenkins, Deputy Director, Bus and Finance
Bryan Weiner, Deputy Director, Research
Tom Ricketts, Deputy Director, Policy Analysis