UNC
THE CECIL G. SHEPS CENTER
FOR HEALTH SERVICES RESEARCH

ANNUAL REPORT

July 1, 2008 - June 30, 2009

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

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APPENDICES

ANNUAL REPORT

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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. Support is described both in terms of funds generated *by the projects* and support *to the projects* from state and overhead dollars.

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 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 and Economic Development. 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, five assistant directors, and from the program directors responsible for the ten specific 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, Obstetrics and Gynecology, Physical Medicine and Rehabilitation, Psychiatry, Radiology, Social Medicine, and Surgery),
- School of Pharmacy,
- School of Public Health (Departments of Epidemiology, Health Policy and Management, 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 10 areas (Aging, Disability, and Long-term Care; Child Health Services; Health Care Economics and Finance; Health Care Organization; Health Disparities; Health Professions and 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 been housed within the Sheps Center. Each of the program areas and the NC•IOM are described later in this report.

The deputy and associate directors meet weekly with the ddirector to discuss center administration, upcoming grant proposals, and center external relations. In order to facilitate communication between program areas and projects the Sheps Center has a monthly seminar series where one investigator makes a brief presentation on one of his/her research projects for discussion. The entire staff is invited to these seminars. 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.

Program on Aging, Disability, and Long-term Care

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

The rapid growth of the nation's older population has brought about an increasing awareness of the special health service needs of older adults. There are significant demands on the families, laypersons, and professionals who deliver health services to this population. Improving the well being of older persons with chronic illness is the goal of the program. 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 the disabled. Work force issues, assisted living, dementia, end-of-life care, and disability are special areas of focus. This program operates in affiliation with the North Carolina Institute on Aging. The following research projects were active during the year:

Improving Medical Care of Assisted Living Residents with Dementia – The overall goal of this project is to increase adherence to evidence-based disease guidelines for Alzheimer's Disease and related dementia care by: 1) improving diagnosis, assessment, and staging of dementia; 2) reducing problems with medication use (including underprescribing of effective medications and use of potentially inappropriate medications); and 3) improving the assessment, detection and treatment of critical elements of dementia quality of life (behavioral symptoms, pain, depression, and mobility problems). The study is utilizing the resources of an existing cohort of 293 assisted living (AL) facilities and 40 nursing homes where Sheps Center researchers have conducted numerous studies over the past six years that document the need for improved medical services.

Principal Investigator:	Philip D. Sloane, M.D., M.P.H.
Funding Source:	Alzheimer's Association
Total Project Period:	03/05 – 02/10
Total Funding:	Total: $1,000,000; Direct: $909,090; Indirect: $90,910

Evaluating the Alzheimer's Association's Training Program for Direct Care Staff – Based in part on the work of a previously funded Sheps Center project, the Alzheimer's Association embarked on a campaign to improve the quality of care and quality of lives for people with Alzheimer's disease and dementia in residential care/assisted living (RC/AL) facilities and nursing homes (NHs). Practice recommendations for direct care staff related to care for food and fluid intake, pain management, and activity involvement, have been developed based on research as well as input from Association chapters, industry and care experts. Chapter affiliates of the Alzheimer's Association were trained to provide classroom instruction on these practices to care staff in RC/AL facilities and NHs in the summer, 2005. This project is a collaborative effort to evaluate: 1) the training provided by the affiliate to the direct care staff and supervisors; 2) the extent to which the practice recommendations are being implemented; and 3) the characteristics related to training outcomes in North Carolina, South Carolina, and Virginia. The supplemental funds allow Kentucky to be included in the evaluation.

Principal Investigator:	Sheryl I. Zimmerman, Ph.D.
Primary Funding Source:	Alzheimer's Association
Total Project Period:	11/05 – 10/08
Total Funding:	Total: $240,000; Direct: $218,182; Indirect: $21,818

A National Assisted Living Community-based Participatory Research Partnership – The goal of this project is to develop a practice/policy-research partnership, through which new knowledge can be generated and existing knowledge translated, to truly improve the quality of care and quality of life in assisted living. Members of the Center for Excellence in Assisted Living (CEAL) and the Collaborative Studies of Long-term Care (CS–LTC)

established a partnership with an organizational structure and established modes of communication, to work together toward two aims: 1) the development of a sustainable model of national community-based participatory research (CBPR) in assisted living and 2) the collection of pilot data for and development of a research project related to medication management in assisted living. The project developed a partnership focused on improving the quality of assisted living, and also served as a beta test of this model.
Principal Investigator: Sheryl I. Zimmerman, Ph.D.
Funding Source: Agency for Healthcare Research and Quality
Total Project Period: 09/06 – 08/08
Total Funding: Total: $367,950; Direct: $275,000; Indirect: $92,950

Implementing a Program to Prevent Injurious Falls in Assisted Living – Using a model of quality improvement and adapting evidence-based interventions that have been used in nursing home and community settings, a multi-component intervention of medication review, assessment, environmental modification, and exercise were developed to reduce risk factors for falls, and fall and fracture rates among residents of assisted living facilities. Two pairs of matched assisted living facilities were randomly selected; one of each is receiving the multi-component intervention program and the other an educational intervention. Over the course of one year of implementation they will be evaluated to determine: 1) the degree to which the facility changes its practices in accordance with the multi-component intervention; the degree to which residents accept and adhere to the intervention; and facility- and resident-level facilitators for and obstacles to implementation and maintenance of the intervention; 2) the change in resident risk factors, and in facility fall and fracture rates; and 3) the relationship of implementation and adherence to change in risk factors and fall and fracture rates. [This is the first project funded at UNC funded under the Accelerating Change and Transforming Organizations and Networks (ACTION) Task Order Agreement to RTI from AHRQ.]
Principal Investigator: Sheryl I. Zimmerman, Ph.D.
Funding Source: Agency for Healthcare Research and Quality (subcontract with the Research Triangle Institute)
Total Project Period: 09/15/06 – 09/30/09
Total Funding: Total: $292,541; Direct: $204,479; Indirect: $94,062

A Family Staff Partnership to Improve Long-term Care Quality – Virtually all practitioners, policy-makers, researchers and the general public recognize a need to improve the quality of care in nursing homes and other residential long-term care settings. In large part, quality concerns exist because there is an insufficient and inconsistent workforce to care for long-term care residents. Fortunately, there is a likely remedy to worker burden, already in place and waiting to be mobilized: residents' families. Therefore, the aim of this project is to conduct a six-month randomized clinical trial of a family-staff partnership program in 24 nursing homes and residential care/assisted living facilities. Families (N = 960) are being involved in resident-focused activities and relations between family and staff (544 nursing assistants and personal care aides) are being facilitated. Results have implications for the workforce crisis in long-term care, and can benefit all individuals who live in, work in, and care about those living and working in, nursing homes and residential care/assisted living facilities.
Principal Investigator: Sheryl I. Zimmerman, Ph.D.
Funding Source: Agency for Healthcare Research and Quality
Total Project Period: 09/15/06 – 06/30/09
Total Funding: Total: $1,485,874; Direct: $1,045,950; Indirect: $439,924

Improving Decision-Making about Feeding Options for Dementia Patients – This study is a cluster randomized controlled trial of a previously piloted decision aid to improve decisions about feeding options for patients with advanced dementia. It aims to test: 1) whether a decision aid on feeding options in dementia effectively informs surrogate decision-makers in the intervention group; 2) whether the decision aid improves 1 and 3 month decision-making outcomes for surrogate decision-makers in the intervention group; and 3) the impact of the decision aid on 1 and 3 month clinical treatment decisions.
Principal Investigator: Laura C. Hanson, M.D., M.P.H.
Funding Source: National Institute on Aging, NIH
Total Project Period: 09/28/06 – 06/30/10
Total Funding: Total: $1,681,910; Direct: $1,192,521; Indirect: $489,389
Secondary Program Area: Medical Practice and Prevention

Measuring the Quality of Dying in Residential Long-term Care – Long-term care (LTC) settings have become a significant site for end-of-life (EOL) care. Although, the information available on EOL in LTC has been growing, one important omission in the research is lack of definitive outcomes measures to assess the quality of dying in LTC. This project will evaluate six quality of dying measures that have been used in—but not necessarily developed for—LTC populations, one developed by this research team for an earlier study. They will be administered to family caregivers in 300 nursing homes and decedents in 150 residential care/assisted living facilities, to determine: 1) the domains of study, convergent validity, internal consistency reliability, ease of use, and perceived relevance of each; 2) what combination of items from the measures results in a composite instrument with the best psychometric properties overall, and in different settings; and 3) whether the measure can separate quality of care from quality of dying. Thus, the project will develop one or two comprehensive, yet parsimonious, valid and reliable measures to assess the quality of dying and the quality of EOL care in LTC. A similar study planned for the Netherlands will permit examination of the culturally-bound components of care and outcomes, which will be useful for international comparisons to improve EOL care in LTC.
Principal Investigator: Sheryl I. Zimmerman, Ph.D.
Funding Source: National Palliative Care Research Center
Total Project Period: 07/07 – 06/09
Total Funding: Total: $307,692; Direct: $279,720; Indirect: $27,972

Physician Care in Assisted Living (AL) Facilities – Currently, there is no systematic information regarding physician care to AL facility residents, and how it is coordinated with AL services. Obtaining this information is the first step to improving the quality of medical care for millions of our nation's elderly. Therefore, the aims of this project are to: 1) describe the care that 240 physicians provide to 480 AL facility residents in 120 stratified AL facilities across four states, as well as the physician and practice characteristics and perspectives related to this care; 2) describe the 120 AL facility managers' (or healthcare liaisons') reports of the care physicians provide to AL facility residents, as well as the medical support services provided by the AL facility and his/her own perspectives regarding this medical care; 3) examine how physician and practice characteristics are associated with the care they provide to AL facility residents; and 4) examine how AL facility characteristics are associated with the care physicians provide to AL facility residents. Findings will have great promise to clarify the current role and future promise of physician services in AL.
Principal Investigator: Sheryl I. Zimmerman, Ph.D.
Funding Source: National Institute on Aging, NIH (subcontract with University of Maryland Baltimore County)
Total Project Period: 07/07 – 12/09
Total Funding: Total: $436,290; Direct: $298,829; Indirect: $137,461

Stigma in the Cultural Context of Residential Settings for the Elderly – Different forms of community housing and residential long-term care now exist for older adults, including active adult communities, assisted living facilities, nursing homes, and continuing care retirement communities. These settings differ in at least two important ways: 1) they do not similarly intend to address the health and psychosocial needs of the residents who live there and 2) they are not similarly acceptable to prospective clientele. Anecdotal data indicate that the more services a setting offers, the more its residents are stigmatized. Unfortunately, this stigma may act to delay an individual's willingness to seek and accept necessary services. Therefore, the aims of this project are to determine: 1) how older adults define stigmatizing traits in themselves and others in their everyday routines; 2) how older adults act and react to stigmatizing traits in themselves and others in their everyday routines; 3) how stigmatizing interpersonal and inter-group traits influence social dynamics and personal behaviors (such as masking, hiding, enabling) to avoid stigma; 4) how stigma is defined or operates differently in various levels of care and environmental configurations (such as those with single vs. graded levels of care in one campus); and 5) how the quality of settings and care might be improved with attention to the personal and social dynamics of stigma.
Principal Investigator: Sheryl I. Zimmerman, Ph.D.
Funding Source: National Institute on Aging, NIH (subcontract with University of Maryland Baltimore County)
Total Project Period: 07/07 – 06/12
Total Funding: Total: $173,867; Direct: $119,087; Indirect: $54,780

Social Work Involvement in the End of Life in Long-Term Care – The purpose of this study is to better understand issues related to the quality of dying considered important by social workers practicing in long-term care

settings, and to learn about the role of these social workers and others filling similar roles in the end-of-life experience. Three focus groups will be conducted with social workers or other long-term care staff who fulfill a similar role. The results will inform the substance of a survey sent to approximately 200 social workers or other long-term care staff who work in settings that provided data for the National Institute of Aging project "End of Life Care in Residential Care and Nursing Homes."
Principal Investigator: Sheryl I. Zimmerman, Ph.D.
Funding Source: Hartford Foundation (subcontract with Florida State University)
Total Project Period: 09/07 – 08/09
Total Funding: Total: $32,532; Direct: $32,532; Indirect: $0

Development of an Assisted Living Consensus Instrument - Phase I - Currently, there are almost 40,000 assisted living residences providing care to as many as one million older adults across the United States. The services provided by these settings differ, but this type of descriptive information is not readily available to help consumers make decisions as they seek services and compare settings. This project will work with a group of key stakeholders to develop a voluntary instrument for assisted living providers to complete to describe their characteristics and services so as to better inform prospective consumers. Topics to be included are services and costs of care; staffing, staff training, and staff turnover; move in/move out criteria and residents' rights, house rules, and life safety; and dementia services.
Principal Investigator: Sheryl I. Zimmerman, Ph.D.
Funding Source: Abt Associates Inc.
Total Project Period: 05/27/08 - 04/26/10
Total Funding: Total: $85,882; Direct: $58,823; Indirect: $27,059

Residential care/assisted living (RC/AL) communities have become a primary provider of care to older adults. Today, nearly one million individuals live in these settings, and in the near future, they will provide care for more persons than do nursing homes. Questions regarding quality have accompanied the growth of RC/AL, however. One of the more pressing questions relates to medication management: there are no agreed-upon workforce standards in this area and so there are concerns about potential medication errors. That is, regulations regarding medication management in RC/AL vary from state to state; for example, in Tennessee only licensed nurses can administer medications to residents, but in nearby South Carolina, an unlicensed but trained medication technician can do so. Further, untrained staff may help RC/AL residents self-administer their medications Thus, better understanding the scope of medication errors as well as the workforce and other characteristics that relate to errors has implications for safety, affordability, and policy. For **A National Assisted Living Community-based Participatory Research** project**,** investigators examined medication management in RC/AL using community-based participatory research (CBPR) methodology. The investigators partnered with the national Center for Excellence in Assisted Living to conduct this work and to use it as the basis of a manual to describe operations for CBPR in RC/AL. Nearly 5,000 medications were observed being given during 83 passes for 320 residents in 11 RC/AL communities in TN and SC. Although errors were observed during a substantial proportion (41%) of these passes, the majority of these observed errors (84%) had little or no possibility of harm, including the 71% which related to medications being administered outside a two-hour window of time. In Tennessee, where the administration of medications is restricted to nurses, the proportion of medications passed by persons other than a licensed nurse or medication technician was similar to that in South Carolina, where there is no such restriction. Medication technicians were no more likely than licensed staff to commit errors. On the other hand, non-nurse staff who was not trained as medication technicians were more likely to commit errors than more trained staff members. These findings have implications for policy regarding what should be considered a medication error and also for training to safely administer medications in RC/AL. Sheps Center study investigators and the Center for Excellence in Assisted Living (CEAL) published a first-of-its-kind manual to improving practices and informing policies in assisted living communities through the use of a collaborative method of research – community-based participatory research (CBPR). The manual can be downloaded from the CEAL website homepage at www.theceal.org.

Blue-White Light Therapy for Circadian Sleep Disorders in Alzheimer's Disease - Disturbed night-time sleep is common in older persons with Alzheimer's disease and related dementias (ADRD), leading to significant negative effects on the daytime function of the affected person and on the well-being of caregivers. Sedating drugs, the conventional treatment for disturbed sleep, have limited effectiveness and pose increased risk in this population.

Disturbed sleep in ADRD is virtually always accompanied by marked disturbances of the circadian system, and research has established that controlled bright-dark light cycles will synchronize that system to the 24-hour solar day.
Principal Investigator: Phillip D. Sloane, M.D., M.P.H.
Funding Source: National Center for Complementary & Alternative Medicine
Total Project Period: 07/1/08 - 06/30/10
Total Funding: Total: $586,171; Direct: $420,006; Indirect: $166,165

Rotavirus Gastroenteritis in a Long-Term Care Population – This project is an epidemiologic assessment of the incidence and characteristics of rotavirus in nursing home residents. Rotavirus is one of several viruses that cause gastroenteritis, or an inflamation of the intestines. People with gastroenteritis typically have fever, vomiting, and diarrhea, which can last anywhere between 3 and 9 days. Long periods of gastroenteritis may lead to dehydration, which can lead to hospitalization. Dehydration can also cause other medical emergencies, such as electrolyte imbalances. Gastroenteritis can be risky in older adults, especially for those that live in institutional settings. In order to learn more about the etiology of rotavirus as a cause of gastroenteritis in older adults, nursing home residents will be monitored for an episode of the disease.
Principal Investigator: Sheryl I. Zimmerman, Ph.D.
Funding Source: Merck and Co., Inc
Total Project Period: 11/14/08-2/28/10
Total Funding: Total: $617,946; Direct: $483,426; Indirect: $134,519

Program on Child Health Services Research

Cathy L. Melvin, M.P.H., Ph.D., Program 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:

Smoke-Free Families Program National Dissemination Office – Since 1994, the Robert Wood Johnson Foundation (RWJF) has funded Smoke-Free Families (SFF): Innovations to Stop Smoking During and Beyond Pregnancy at the University of Alabama at Birmingham (UAB). This initiative sought to identify evidence-based approaches for reducing tobacco use during pregnancy and to select an effective cessation counseling intervention for pregnant women. During this first phase of the project it was found that a brief cessation counseling session of 5 to 15 minutes, when delivered by a trained provider with the provision of pregnancy-specific, self-help materials, increases rates of cessation among pregnant smokers. The identification of this intervention has signaled both new opportunities for improving prenatal care and new research challenges for improving the treatment of pregnant smokers. The RWJF is addressing these opportunities and challenges through a second phase with two core components: a National Program Office (NPO) at the UAB to coordinate ongoing intervention research and a National Dissemination Office (NDO). The Sheps Center was designated the NDO and is undertaking health services research and other efforts to increase the adoption, reach, and impact of evidence-based behavioral intervention strategies for pregnant smokers. In particular, the NDO is collaborating with relevant organizations and agencies to increase the numbers of systems and practitioners providing evidence-based interventions for pregnant smokers and the numbers of individuals receiving the evidence-based intervention.
Principal Investigator: Cathy L. Melvin, M.P.H., Ph.D.
Funding Source: Robert Wood Johnson Foundation
Total Project Period: 05/00 – 09/08
Total Funding: Total: $5,305,941; Direct: $5,078,409; Indirect: $227,532
Secondary Program Areas: Medical Practice and Prevention; Women's Health Services Research

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 – 06/10
Total Funding: Total: $610,050; Direct: $554,543; Indirect: $55,507
Secondary Program Area: Women's Health Services Research

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: 9/30/08-9/29/09
Total Funding: Total: $184,944; Direct: $171,244; Indirect: $13,700

Evaluating Plan for the North Carolina Healthy Start *Baby Love Plus* Reducing Racial Disparities in Infant Mortality in North Carolina - The purpose of this research is to continue the ongoing evaluation of the North Carolina Healthy Start Initiative, currently in seven rural Eastern counties and five rural counties in the Northeastern region 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 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 initially designed to reduce infant mortality through enhanced community capacity, responsibility, and ownership of infant mortality reduction efforts and enhanced individual perinatal services. Since 1997, federal funding for this project has centered on reducing racial disparities in infant mortality and most recently includes components for screening and treatment of perinatal depression as well as targeted case management for high-risk families in the interconceptional period. Using primary and secondary data (including: vital records, Medicaid claims, health department administrative records, and community surveys), information on birth outcomes, use of perinatal health services, associated costs, and consumer satisfaction is being provided to program staff to use for on-going

evaluation and program planning. The community surveys are conducted using a combination of in-person interviews, telephone interviews, public "intercept" interviews, and group interviews. This Initiative involves four component intervention models, which are purposefully overlapping and integrative: 1) Community-based Consortium, 2) Care Coordination/Case Management, 3) Outreach and Client Recruitment, and 4) Education and Training Services. Community-based Consortia have been formed as joint efforts between the project counties in each Region, and serve in an advisory capacity for the Initiative. They assist with program planning, operations, monitoring and evaluation and are in the process of establishing themselves as 501 C-3 non-profit legal entities. The Care Coordination and Case Management portion of the Initiative enhances the current Baby Love Maternity Care Coordination services provided by the State. The Outreach and Client Recruitment effort involves Community Health Advocates who function as case-finders in the community and provide population-based education and assist families with accessing and using local perinatal health services. And the Education and Training efforts are intended to improve knowledge and skills of consumers, public health service workers, and community leaders with respect to infant mortality issues and risk factors. In addition to the Healthy Start Baby Love Plus projects, this contract also includes evaluation of a new, two year initiative being implemented through the BLP program. It is a community education campaign aimed at improving knowledge, awareness, and use of services for new parents in the Region. The North Carolina Healthy Start Initiative is in its third cycle of federal funding, and will last one additional year in the East, and three additional years in the Northeast. The Triad Region is currently competing for a third four-year renewal.
Principal Investigator: Julia L. DeClerque, Dr.P.H.
Funding Source: North Carolina Dept of Health and Human Services via Maternal and Child Health Bureau
Total Project Period: 12/1/08-11/30/09
Total Funding: Total: $11,377; Direct: $10,343; Indirect: $1,034

State Title V Performance Indicator and Needs Assessment Evaluation – This project is examining the priority needs identified by the 59 states and jurisdictions in 2005 and compares them to those identified in 2000. A comprehensive review of the State and Jurisdiction Needs Assessments explores the inclusion or exclusion of other needs. Performance measures selected by the states are being evaluated to see how well the identified needs are being addressed. Actual performance for the measures selected is being reviewed for all states and jurisdictions and specific measures and states are being selected for further evaluation to identify “Promising Practices” to improve the health of mothers and children.
Principal Investigator: Victoria Freeman, R.N., Dr.P.H.
Funding Source: Maternal and Child Health Bureau, Health Resources and Services Administration, U.S. Department of Health and Human Services
Total Project Period: 09/25/06 – 09/30/09
Total Funding: Total: $297,885
Secondary Program Areas: Women’s Health Services Research; Health Professions and Primary Care

Since its inception, the Child Health Services Program has included a number of 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 and Utilization Project to Address Issues Related to the Evaluation of the Impact of Family Planning – Building on a project that started in 1983, this project maintains and strengthens the eight DHHS Region IV states’ maternal and child health (MCH), family planning, and women’s health agencies’ capacity to identify factors that contribute to the high infant mortality rate in the region and key non-reproductive women’s health problems; strengthens the MCH, family planning, and women’s health agencies’ leadership role in planning, promoting, coordinating, and providing health care to address the problems identified; and fosters coordination and cooperation between the state MCH, family planning, and women’s health agencies and their state statistical agencies.
Project Director: Priscilla A. Guild, M.S.P.H.
Funding Source: Office of Population Affairs, U.S. Department of Health and Human Services
Total Project Period: 10/90 – 09/09
Total Funding: Total: $2,236,181; Direct: $2,059,484; Indirect: $176,697

Secondary Program Area: Women's Health Services Research

Subcontract for Region IV Title X Family Planning Regional Training and Technical Assistance Project - Coalition for Excellence and Innovation in Family Planning Services, will provide comprehensive training and specialized technical assistance to family planning providers throughout the eight-state Region IV. The RTTAP will use a combination of face-to-face and innovative distance learning strategies that will support and enhance the delivery of high quality family planning services. We will provide expertise in the use of the Chronic Care Model for quality improvement, survey grantees to assess training and technical assistance needs, participate in the collaboratives, and assist with all distance learning activities and evaluation.
Principal Investigator: Cathy L. Melvin, M.P.H., Ph.D.
Funding Source: Cicatelli Associates Inc via Office of Public Health and Science
Total Project Period: 7/1/08 – 6/30/11
Total Funding: Total: $298,842; Direct: $276,706; Indirect: $22,136

The ***Regionalized Network for Data Management and Utilization*** **(RNDMU)** was conceived in 1984 and has been tracking perinatal data from the eight USDHHS Region IV states for 144 indicators, ever since. Almost thirty years after the Southern Governor's Association commissioned the Southern Regional Task Force on Infant Mortality, which identified the need to monitor perinatal data and track indicators over time, RNDMU provides 28 years of MCH data, and serves as a model for states in other Regions. Funding sources have changed over the years from the MCH Bureau (Title V) to the Office of Population Affairs (Title X), shifting the project's indicator set to include family planning (FP) and women's health. Multidisciplinary and multi-agency partnerships have been developed to improve the health of women and infants in the southeastern region. This type of collaboration is frequently talked about but all too often not accomplished, let alone accomplished for nearly a quarter of a century. In the past year, RNDMU data have been used to assess declining numbers of family planning users funded through Title X, referrals for primary care resulting from family planning clinic visits, and the consequence of Medicaid 1115 demonstration waivers for States' Title X programs in the Region. In 2009, the project celebrated its 25th anniversary, with record attendance and a focus on future directions for the project. The current set of indicators were reviewed and decisions made about updating and revising many areas of the project to reflect current thinking and a "lifespan" approach to perinatal health. The project focus is shifting away from infant mortality and child health to women's health and preconception care. In addition to revising the data included in the project, the Sheps website is being updated to facilitate use. The RNDMU project is an extremely valuable and unique public health resource, and is moving in new directions to ensure the data remain relevant and easily accessible.

The Program on Child Health Services Research had the following technical assistance project active this year:

Assessment and Support for Achieving Prevention (ASAP) - The Assessment and Support for Achieving Prevention (ASAP) project is funded by the Kate B. Reynolds Charitable Trust and involves four grantee organizations: Cabarrus Health Alliance, Cape Fear Valley Health System, First Health of the Carolinas, and the YWCA of the Greater Triangle. Drs. Melvin and Rohweder provide technical assistance to these organizations to assure that their wellness programs are based on interventions that have an impact on improving nutrition, physical activity, and smoking cessation among their target population. Grantees are using approaches such as lay health advisors, church-based initiatives, and workplace interventions to promote standardized guidelines and curricula. In addition to conducting individual assessments, our team is also providing guidance to the Trust on its grant making process for their prevention portfolio.
Principal Investigator: Cathy L. Melvin, M.P.H., Ph.D.
Funding Source: Kate B. Reynolds Charitable Trust
Total Project Period: 10/01/08 – 05/31/09
Total Funding: Total: $59,924; Direct: $59,924; Indirect: $0
Type: Technical Assistance

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.

Identification of Zip Code Areas Eligible for the Health Professional Shortage Area (HPSA) Bonus Designation – The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA 2003) amended the Social Security Act that provides for bonus payments for physician services provided in geographic Health Professional Shortage Areas (HPSAs) and mandated that CMS pay a new physician scarcity bonus. Beginning in 2005, Medicare carriers began to automatically pay the HPSA bonus for services provided in ZIP codes that fully fell within designated HPSA areas. In addition, they will also pay the bonus based on the inclusion of a modifier for services delivered in certain other areas. CMS must also include the lists of ZIP codes eligible for bonus payments on its web site. To facilitate identification of eligible claims, this project is identifying ZIP codes that correspond to areas where physicians qualify for bonus payments. Two types of ZIP code lists are being produced, those that contain ZIP codes for which the bonus payment should be automatic and those that contain ZIP codes for which the physician *may* be located within the qualifying HPSA, and so payment is not automatic. In addition, under this contract, files of ZIP codes will be developed that identify those eligible for scarcity bonus payments. Finally, lists of the physician scarcity areas that will gain and lose designated status for 2007 based on the new data as well as a list of how many physicians would be impacted by the changes in each of those areas is being provided.
Principal Investigator: Rebecca T. Slifkin, M.H.A., Ph.D.
Funding Source: Centers for Medicare and Medicaid Services
Total Project Period: 04/06 – 03/11
Total Funding: Total: $279,304; Direct: $191,304; Indirect: $88,000
Secondary Program Areas: Aging, Disability, and Long-Term Care; Health Professions and Primary Care
Rural Health Services

Carolina Cost and Quality Initiative (CCQI) – This is a collaborative partnership between UNC’s School of Public Health and the Cecil G. Sheps Center for Health Services Research to build, maintain and oversee the use of data on health care services provided to North Carolina residents, and to promote the use of these data for research. Data from public and private primary payers populate the patient specific database. Periodic updates from the payers keep the research database current and relevant. All patient identifiers are encrypted by the data owners prior to submission to the CCQI. This allows the researcher to link line items for the same individual, but no individual can be identified. The mission of the CCQI is to promote population-based research on the incidence and prevalence of disease in insured populations, patterns of utilization, treatment and cost of care in North Carolina with an objective to improve the delivery and quality of care to its residents.
Principal Investigator: Sandra B. Greene, Dr.P.H.
Funding Source #1: Private Bequest
Total Project Period: 07/05 – 06/09
Total Funding: Total: $300,000; Direct: $300,000; Indirect: $0
Funding Source #2: UNC-CH School of Public Health (SPH) Dean’s Office
Total Project Period: 07/05 – 06/09
Total Funding: Total: $25,000; Direct: $25,000; Indirect: $0
Type: Research
Secondary Program Area: Medical Practice and Prevention

Trauma Center Brief Alcohol Treatment and Cost Effectiveness – The prevalence of alcohol use disorders among people hospitalized for trauma far exceeds that in the general population, making trauma centers a promising venue for brief interventions to reduce future alcohol-related harm and related costs. Optimal approaches for such

intervention are unclear, but two strategies appear promising: motivational interviewing (MI) and brief physician advice. MI is a general health behavior change counseling method, requiring significant time and training to establish proficiency. A simpler option in a hospital setting after acute injury is brief advice from the trauma surgeon treating the injured patient. The proposed study will evaluate these two different strategies (specialist MI counseling and brief physician advice) and compare them with standard care at a Level I trauma Center using a randomized clinical trial with 375 trauma patients. The overall aim of the study is to determine whether these two distinct, readily implemented models can reduce alcohol use and related harm and costs in trauma patients with alcohol disorders.
Principal Investigator: Sally C. Stearns, Ph.D.
Funding Source: National Institute on Alcohol Buse and Alcoholism (NIAAA), NIH (subcontract with Loyola University of Chicago)
Total Project Period: 7/06 – 6/11
Total Funding: Total: $35,385; Direct: $24,236; Indirect: $11,149

Acute Coronary Syndromes Outcomes for Medicare Patients – This study aims to improve the outcomes of elderly patients with ACS by identifying the most efficacious treatments. Clinically important outcomes (re-hospitalization, additional revascularization procedures, mortality and cost) associated with various treatment strategies (medical, CABG or PCIS) for a five-year follow-up period for Medicare patients initially treated for acute coronary syndromes (ACS) in 1998 while controlling for treatment selection is being examined and the optimum treatment strategy for Medicare patients with ACS changes with advancing age (e.g., for cohorts aged 65-74, 75-84, and 85 and older), co-morbidity presence, or both is being determined. Diffusion of strategies from 1998 to 2003 and whether the factors influencing treatment choice have changed over time are also being assessed.
Principal Investigator: Sally C. Stearns, Ph.D.
Funding Source: National Institute on Aging (NIA), NIH
Total Project Period: 04/05 – 06/30/10
Total Funding: Total: $646,719; Direct: $445,071; Indirect: $201,648
Secondary Program Areas: Aging, Disability, and Long-Term Care and Medical Practice and Prevention

A team of researchers at the Sheps Center and the Gillings School of Global Public Health, led by Professor Sally C. Stearns, is conducting an analysis of Medicare claims data to assess the comparative effectiveness of alternative revascularization strategies for aged Medicare beneficiaries with acute coronary syndromes (ACS) for the **Acute Coronary Syndromes Outcomes for Medicare Patients** project. Prior studies of treatments for coronary artery disease inadequately represent patients age 65 and older. Although some studies have suggested that the elderly with ACS may benefit from myocardial revascularization, these reports fail to identify several key elements: a) the ages at which benefit occurs from myocardial revascularization; b) comorbidities consistent with or prohibitive of an aggressive treatment strategy; c) the optimal mechanism (percutaneous coronary intervention with stents (PCIS) or coronary artery bypass graft (CABG)) for myocardial revascularization by age or comorbidities; and d) resource utilization with respect to treatment modality both from and following the initial revascularization. Providers currently are treating this population with minimal guidance from research. The less invasive nature of PCIS may increase its use in older patients, yet increasing longevity among the elderly may increase the potential benefit from CABG relative to PCIS for those patients. The grant uses Medicare claims data from 2002 to 2007 for a cohort of beneficiaries with hospitalization for ACS in 2003 or 2004 to: (1) identify patient characteristics associated with the invasive treatment decision (PCIS, or CABG); and (2) determine the effect of the selected treatment strategy on health outcomes and costs over up to a five year follow-up period after controlling for factors that influence the initial revascularization decision. Preliminary results show substantially greater freedom from repeat revascularization for Medicare patients receiving CABG relative to patients receiving PCI with drug-eluting stents (PCI-DES) or bare metal stents (BMS) for three years following the initial revascularization. CABG patients are more likely to die or to experience a combined outcome (death, repeat revascularization, stroke or acute myocardial infarction) for the first several months following initial revascularization, though by three years CABG recipients have a lower rate of the combined outcomes. Future analyses will extend the analysis period and assess the pattern of net months alive relative to resource use.

Better Payment Policies for Quality of Care: Fostering the Business Case for Quality (BCO) Phase III – Medicaid Managed Care Initiatives – The objective of this project is to determine if quality pays in Medicaid

managed care and to identify the financial misalignments that may deter investments in quality. The UNC evaluation team will analyze claims and financial data from five participating Medicaid sites. Using financial models developed by UNC in BCQ-Phase I, it will be determined whether a return on investment from the site's quality improvements in asthma and congestive heart failure care management initiatives can be measured.
Principal Investigator: Sandra B. Greene, Dr.P.H.
Funding Source: Center for Healthcare Strategies
Total Project Period: 01/08 – 12/11
Total Funding: Total: $500,000; Direct: $490,145; Indirect: $9,855

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. There were no active research projects this year, although many of the projects listed under the Program on Mental Health and Substance Abuse Services and Systems Research are also related to health care organization.

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 – 06/30/12
Total Funding: Total: $2,593,393; Direct: $1,781,070; Indirect: $812,323

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 the mechanism that will build the first national outcomes database for physical therapy. Approximately 200 therapists around the country are currently using APTA CONNECT and this number is expected to increase. The APTA has identified a number of "mandated fields" in APTA CONNECT that will be used to create the national outcomes database. The primary objective of this project is to conduct a preliminary assessment of data that have been collected in these mandated fields. Descriptive and multivariate analyses will be conducted to assess the integrity of the data and to describe the use and outcomes of physical therapy. Information gathered from these analyses will inform next steps in the development of the outcomes database and will provide an initial 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.
Primary Funding Source: American Physical Therapy Association
Total Project Period: 9/15/08 – 9/14/09
Total Funding: Total: $22,640; Direct: $15,349; Indirect: $7,291

A Comparison of Direct Access and Physical Therapy Episodes Using Claims Data - States in the U.S. have differing laws regulating an individual's access to physical therapy – some require the referral of a physician prior to treatment from a physical therapist, whereas others do not. Much debate remains on the proper way to balance the risks (e.g., possibility of misdiagnoses, incorrect treatment) and benefits (e.g., improved access to care) of allowing direct access. This study will examine health insurance claims data from Iowa and South Dakota to determine the

health and economic outcomes of physician-referred and direct access episodes of physical therapy care. A series of descriptive and multivariable analyses, including Generalized Estimating Equations (GEE) or generalized linear mixed models, will be conducted to achieve the following specific aims: 1) To develop operational definitions for an episode of outpatient physical therapy care, a direct access episode of care, and a physician-referred episode of care within the context of an insurance claims database. 2) To characterize the properties of a physical therapy episode based on diagnosis and CPT codes. 3) To describe the demographic characteristics and co-morbidities of direct access and physician-referred episodes of care before, during and after the episode of care and determine where significant differences exist. 4) To compare measures of utilization and cost of health care services between direct access and physician-referred episodes of care before, during and after the episode.
Principal Investigator: Janet Freburger, Ph.D.
Funding Source: APTA via University of Iowa
Total Project Period: 10/1/08-9/30/09
Total Funding: Total: $17,959; Direct: $12,301; Indirect: $5,658

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 - 3/23/10
Total Funding: Total: $223,994; Direct: $151,860; Indirect: $72,134

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 – 06/30/10
Total Funding: Total: $242,771; Direct: $183,161; Indirect: $22,610

Bryan Weiner and colleagues at the Sheps Center continue their work on **Implementing Systematic Interventions to Close the Discovery-Delivery Gap**, a five-year study funded by the National Cancer Institute (NCI) that will provide 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. Moreover, evaluations conducted by researchers at the Sheps Center in the early 1990s indicated that the CCOP had a quality-enhancing effect on physicians' practice patterns. Yet, the past 15 years have seen many changes in health care delivery, and it is unclear whether the CCOP still offers a promising model for the NIH to consider as it promotes PBRNs in other disease areas. This project consists of a series of three distinct, but conceptually integrated studies. To investigate implementation, in-depth case studies of three newly funded CCOP organizations and a national survey of all 50 CCOP organizations will be conducted. To examine the impact of the CCOP, time-specific adoption rates of evidence-based cancer therapies among CCOP-affiliated and non-CCOP-affiliated provider organizations will be analyzed using SEER-Medicare data. Finally, to examine the business case for CCOP participation, financial models and statistical tools will be developed through pilot work with a successful CCOP organization. Studying CCOP offers a unique opportunity to advance scientific knowledge about dissemination and implementation.

Program on Health Disparities

Giselle Corbie-Smith, M.D. 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. The following research projects were active during the year:

Lay Health Pilot Study: On Our Own Terms – This pilot study designs and tests the feasibility of a Lay Health Advisor intervention with the overall objective of improving treatment for pain and suffering for African American patients with cancer. To achieve this objective, a successful research partnership between the UNC-CH School of Medicine and Shaw University, a historically black university is being used. An interdisciplinary group of faculty with expertise in palliative care and in community-based research are recruiting 30 Palliative Care Lay Health Advisors (PCLHA) from 6 African American churches. The specific aims of this project are to: 1) explore the acceptability and comprehensiveness of an existing measure of quality of life at the end of life (QUAL-E) in focus groups of African-American cancer patients and family caregivers; 2) test the feasibility of proposed methods for recruiting and training PCLHAs from African-American churches; 3) test the feasibility of proposed methods for pairing PCLHAs with African-American patients with advanced cancer and their family caregivers; and 4) describe the impact of PCLHAs on these cancer patients' knowledge of local providers of pain and symptom treatment, communication about life-sustaining treatment choices, quality of life, and perceived unmet need for treatment of pain and suffering.

Principal Investigator:	Laura C. Hanson, M.D., M.P.H.
Funding Source:	National Institute of Nursing Research, NIH
Total Project Period:	09/12/05 – 08/31/08
Total Funding:	Total: $342,164; Direct: $250,000; Indirect: $92,164
Secondary Program Area:	Medical Practice and Prevention

Lung Cancer Surgery: The Anatomy of Decisions Against Life Saving Care – Lung cancer is the leading cause of cancer death in the United States. Non-small cell histology represents about 80% of all cases; surgical resection during stage I or II disease remains the only reliable treatment for cure. Despite the mortality associated with

rejecting surgery, 24% of white patients and 36% of black patients diagnosed with stage I or II disease do not proceed to operation. This prospective cohort study in four sites in NC (two university and two community settings, including chest surgery, pulmonary medicine, and thoracic oncology) includes 380 newly diagnosed, early stage lung cancer patients (approximately 60% white, 40% black). It allows patient factors (age, race, comorbidity, pulmonary physiology, spirituality, trust in physicians, functional status) and physician factors (specialty, experience, beliefs regarding operative morbidity, decision-making style) affecting the decision-making process to be identified.
Principal Investigator: Samuel Cykert, M.D.
Funding Source: American Cancer Society
Total Project Period: 07/05 –12/09
Total Funding: Total: $1,742,461; Direct: $1,536,171; Indirect: $206,290
Secondary Program Area: Medical Practice and Prevention

Project GRACE: A Participatory Approach to Address Health Disparities – This planning grant builds on the infrastructure of the NCMHD funded Carolina-Shaw Partnership for the Elimination of Health Disparities (Project EXPORT) and existing academic-community partnerships that share the common goal of eliminating health disparities in the African American communities and uses a community-based participatory research (CBPR) framework for partnership development and intervention design. The long-term goal is the development of feasible and sustainable interventions that reduce the spread of HIV in Edgecombe and Nash counties. To that end this project aims to: 1) expand, strengthen and evaluate The Project GRACE Consortium; 2) identify community needs and assets to support the development of multilevel interventions to address individual and environmental/contextual factors that influence the spread of HIV; 3) define culturally appropriate multilevel interventions that draw on community insights and available resources to address individual and environmental/contextual determinants of the spread of HIV; and 4) test the feasibility of proposed methods for recruiting and training lay health advisors to address both individual and environmental/contextual determinants of the spread of HIV.
Principal Investigator: Giselle Corbie-Smith, M.D.
Funding Source: National Center for Minority Health and Health Disparities (NCMHD), NIH
Total Project Period: 09/30/05 – 02/28/10
Total Funding: Total: $1,651,497; Direct: $1,307,247; Indirect: $344,250
Secondary Program Area: Medical Practice and Prevention

HIV/AIDS Research Among African American Women in Rocky Mount, NC – This is a cross-sectional study of 500 African American women in two North Carolina counties with high rates of sexually transmitted diseases and HIV to examine risk factors for these infections. Specifically, the prevalence of Neisseriae gonorrhoeae (GC), Chlamydia trachomatis (CT), and HIV and an estimate of HIV incidence is being determined. In particular, the project aims to increase understanding of socio-cultural factors (e.g., religiosity and spirituality) and proximate determinants (e.g., epidemiologic factors and high-risk sexual behaviors and practices, such as concurrent partnerships) that influence HIV/STI transmission and determine the strength of their association with GC, CT, and HIV infection. Qualitative research is also being conducted using focus groups among 70-80 African American women to obtain a more in-depth understanding of socio-cultural, structural, socioeconomic, and other contextual factors that influence HIV transmission among African American women in the study population; and behavioral and other proximate determinants identified as important in the cross-sectional study. Understanding these factors is a critical first step in designing effective HIV interventions for this population.
Principal Investigator: Adaora A. Adimora, M.D.
Funding Source: Centers for Disease Control and Prevention
Total Project Period: 09/30/05 – 09/29/09
Total Funding: Total: $1,242,025; Direct: $950,817; Indirect: $291,208
Secondary Program Areas: Medical Practice and Prevention, Women's Health Services Research

Increasing Access to HIV Trials for Rural Minorities – Despite an epidemic of new HIV infections in racial and ethnic minorities and continued emphasis on minority inclusion in research, minority participation in HIV/AIDS trials has not kept pace. In rural minority communities many barriers limit access to clinical trials, at the community and individual levels. This project is fully characterizing individual and community influences on research participation of rural African Americans and Latinos and develop innovative, theory-based, culturally responsive interventions. In Phase 1 focus groups with community leaders and health care/service providers were held and

semi-structured interviews with individuals with HIV will characterize influences on willingness to participate in research. Phase 1 participants will give feedback on a culturally responsive outreach strategy for the community and providers, individual enrollment sessions, and a mobile trials unit. In Phase 2 these data will be used to modify the conceptual model and the model will be used to develop and refine the outreach strategy. Cognitive interviews with community leaders, providers and individuals with HIV will determine the acceptability of each component. In Phase 3 a 12-month assessment of the individual enrollment session and mobile unit, alone and in combination, will be conducted in a single site.
Principal Investigator: Giselle Corbie-Smith, M.D.
Funding Source: National Institute for Nursing Research (NINR), NIH
Total Project Period: 06/06 – 05/10
Total Funding: Total: $1,643,287; Direct: $1,191,197; Indirect: $452,090
Secondary Program Areas: Medical Practice and Prevention; Rural Health Research

Disparities in the Diffusion of State-of-the-Art Prostate Cancer Treatments – The project explores the hypothesis that racial disparities in prostate cancer mortality are associated with disparities in the diffusion of new prostate cancer treatments to African American patients. SEER Medicare data are being used to identify prostate cancer patients and longitudinally follow the adoption of new treatments among Caucasian and African Americans. Seer site, age, disease stage, and socio-economic status will be controlled for. The results of the study could lead to increased understanding of how delayed access to state-of-the-art treatments can affect racial disparities in cancer outcomes.
Principal Investigator: Paul A. Godley, M.D., Ph.D.
Funding Source: U.S. Department of Defense
Total Project Period: 02/06 – 02/09
Total Funding: Total: $438,000; Direct: $300,000; Indirect: $138,000
Secondary Program Area: Medical Practice and Prevention

High-Risk Heterosexual Partnering in the Age of AIDS: A Multilevel Analysis – Mathematical modeling demonstrates that concurrent partnerships speed transmission of HIV through sexual networks much more effectively than does serial monogamy with the same total number of sexual partners. The social and economic environment in which many African Americans live discourages long-term monogamy and promotes concurrent partnerships. Extensive involvement in concurrency may be a critical factor in the epidemic of HIV and other sexually transmitted infections (STIs) among African Americans. This study is testing the following hypotheses through multilevel analyses of a nationally representative data set, Cycle 6 of the 2002 National Survey of Family Growth: 1) African American men and women are more likely than white men and women to have had heterosexual concurrent partnerships during the preceding 12 months and 2) involvement in concurrent partnerships is related to lower community sex ratio, education, and marriage rates, and to higher unemployment, poverty and crime rates.
Principal Investigator: Adaora A. Adimora, M.D.
Funding Source: National Institute of Child Health and Human Development (NICHD), NIH
Total Project Period: 04/20/07 – 03/31/09
Total Funding: Total: $397,378; Direct: $275,000; Indirect: $122,378
Secondary Program Area: Medical Practice and Prevention

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
Total Funding: Total: $6,828,533; Direct: $5,512,464; Indirect: $1,316,069

In addition, the Health Disparities Program had the following technical assistance project active this year:

Shaw University M-RISP Minority Elderly Research Center (SUMMER CENTER) – Faculty members at UNC-CH are providing the following to Shaw University and its investigators: 1) a program of training and skills-building; 2) research support including assistance with grant and budget preparation, data management, analysis, and report writing; 3) mechanisms for the development and evaluation of new study proposals that ensures their relevance to eliminating racial and ethnic disparities in health; 4) workshops for minority, health services research, and service communities to promote and disseminate Shaw findings; 5) assistance in recruiting more senior research-oriented faculty; 6) promotion of more scholarly research publications; and 7) expansion into other substantive areas and study population as Shaw expertise evolves.

Principal Investigators: Timothy S. Carey, M.D., M.P.H.
Funding Source: Agency for Healthcare Research and Quality (subcontract with Shaw University)
Total Project Period: 12/05 – 11/10
Total AHRQ Funding: Total: $116,507; Direct: $79,799; Indirect: $36,708
Secondary Program Area: Aging, Disability, and Long-Term Care

North Carolina Cancer Clinical Trial Community Advisory Board- Mistrust of medical research remains a significant obstacle to minority participation in clinical research. Strategies seeking to increase community knowledge underestimate the gravity of distrust. In order to address disparities in cancer, engaging community representatives/patient advocates (CR/PA) as research partners can enhance research participation of people of color and increase the value of cancer research. This perspective recognizes that public representatives have a role in cancer clinical research beyond research participation. To ensure a meaningful role of community representatives/patient advocates, to provide the fundamental perspective from the public, and advance implementation of research we intend develop a state-wide community advisory board (CAB) in partnership with the NC Comprehensive Cancer Program. This board will provide guidance to cancer researchers at the state's three NCI-designated cancer centers and strengthen academic accountability to the medically underserved. Our objectives are to: 1) develop and train a Community Advisory Board to provide guidance to local research sites and 2) partner with local research sites to enhance the role of CR/PAs local cancer clinical trials. Trained in the ethical protocols of research principles and clinical protocols, minority cancer survivors and caregivers are ideal community representatives to review clinical trial protocols for community relevance and feasibility.

Principal Investigator: Giselle Corbie-Smith, Ph.D.
Primary Funding Source: Education Network to Advance Cancer Clinical Trials (ENACCT)
Total Project Period: 1/1/09-12/31/09
Total Funding: Total: $8,000; Direct: $8,000; Indirect: $0

Shaw UNC-CH Center for Prostate Cancer Research (SUCPCR) – As a subcontractor, UNC-CH is providing a structured program of training and skill-building for Shaw University investigators that will include monthly seminar/colloquia series, skills building workshops, one-on-one meetings, and weekly telephone conferences.

Principal Investigator: Paul A. Godley, M.D., Ph.D.
Funding Source: U.S. Department of Defense
Total Project Period: 07/05 – 08/08
Total Funding: Total: $164,250; Direct: $112,500; Indirect: $51,750
Secondary Program Area: Medical Practice and Prevention

Compared to whites, African Americans with cancer are less likely to receive effective treatment for pain, less likely to communicate with health care providers about life-sustaining treatment choices, and less likely to use palliative care services. **Lay Health Pilot Study: On Our Own Terms** researchers at UNC-CH and Shaw University with expertise in palliative care, spiritual care, and community-based interventions designed and piloted a Palliative Care Health Advisor Program in African American churches. Focus group data showed: 1) Physical symptoms and active participation in healthcare are strongly endorsed as important to African-Americans; 2) Concerns about the future and concerns about life completion are important to quality of life, but African-American participants questioned whether it is appropriate for health care professionals (as opposed to pastors or other trusted individuals) to explore these areas; 3) Items using "worry" require admitting to an unhealthy negative frame of mind, and may imply a lack of faith in God's provision; 4) Questions that raise worries or concerns should not be asked, even in the context of research, without being able to offer direct assistance or to refer the individual in need to professionals who can help them; 5) Discussing family caregiving as a burden may not resonate with African Americans who draw on family as a source of strength and support during trouble. The project team also designed and implemented a recruitment strategy to reach African-American churches, and through them to recruit potential Health Advisors. Snowball sampling through key informants in the African-American community was responsible for nearly all recruitment. Health Advisors who participated throughout the study reported extending outreach, education and support to 210 individuals. They extended this assistance in multiple community settings, most commonly churches, workplaces and area medical offices.

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 –9/01/10
Total Funding:	Total: $22,507; Direct: $17,863; Indirect: $4,644
Secondary Program Area:	Medical Practice and Prevention

Improving the Integration of Evidenced-Based Clinical and Community Services to Support Healthy Behaviors – This is a randomized trial within a primary care practice-based research network (PBRN) evaluating two different interventions compared to usual practice to improve linkages with community resources addressing tobacco use, unhealthy diets, and physical inactivity. The first intervention uses an evidence-based quality improvement learning collaborative and the second uses a more informal practice strategy in which practices will receive written material (brochures, fax referral forms, and “information” prescription pads) to facilitate referral to community resources that address the selected unhealthy behaviors. Quantitative and qualitative analyses will be used to understand the impact of the interventions at the practice, provider, patient, and community resource level. The main outcome measure is the probability that a patient with an unhealthy behavior is referred to a community resource. [This is the first Primary Care-Practice Based Research Network (PBRN) project under the (NCN) Consortium.]

Principal Investigator: Philip D. Sloane, M.D., M.P.H.
Funding Source: Agency for HealthCare Policy and Research (AHRQ)
Total Project Period: 08/07 - 02/09
Total Funding: Total: $249,993; Direct: $229,409; Indirect: $20,584
Secondary Program Area: Medical Practice and Prevention

Understanding the Direct and Indirect Costs of Quality Measurement Data Collection and Reporting in Primary Care Practice –. The purpose of this study is to estimate both direct and indirect costs incurred by primary care practices related to being required to collect and report quality performance measurement data. A diverse sample of eight practices will participate in the study. Direct and indirect costs of the following scenarios will be estimated: 1) total costs absorbed by practices who are reporting 1-2 measures; 2) costs involved with reporting a small group of measures (2-8 measures); and 3) costs of reporting 2-8 (or more) measures to several different stakeholders. Cost estimates will be generated for practices that use Health Information Technologies (HIT, e.g. electronic health records, registries) and for those that do not. In addition, the project seeks to determine: 1) what factors influence primary care practices to collect and report quality measures; 2) the actual strategies used by practices to implement and maintain reporting, and to improve the cost-efficiency of this reporting; and 3) the justification of these costs. [This is the second Primary Care-Practice Based Research Network (PBRN) project under the (NCN) Consortium.]
Principal Investigator: Philip D. Sloane, M.D., M.P.H.
Funding Source: Agency for HealthCare Policy and Research (AHRQ)
Total Project Period: 09/07 – 10/08
Total Funding: Total: $299,981; Direct: $238,674; Indirect: $61,307
Secondary Program Area: Medical Practice and Prevention

Documentation of the Activities and Contributions of the NC Medical Society's Community Practitioner Program (CPP): The First 17 Years (1989-2006) – The primary focus of the CPP is to help medical practices in physician shortage areas of North Carolina recruit and retain physicians, physician assistants, and nurse practitioners, using loan repayment incentives to attract practitioners. This project links administrative data from the program with data from secondary sources (e.g., medical licensure files, U.S. Census) to provide in-depth descriptions of the practitioners who have participated in the program, to characterize their backgrounds, disciplines and careers prior to and after participating. The report will also describe the practices, towns and counties where participants have served, and the patient populations for whom they provided care.
Co-Principal Investigators: Donald E. Pathman, M.D., M.P.H.
Funding Source: North Carolina Medical Society Foundation
Total Project Period: 04/07 – 02/10
Total Funding: Total: $82,649; Direct: $73,793;Indirect: $8,855
Secondary Program Area: Rural Health Research

Initiative to Identify and Eliminate Racial Ethnic Disparities within UNC Health Care – Disparities in the health and health care of racial and ethnic minorities in the U.S. are well recognized and their causes are known to be many, but there are few tested models for reducing disparities, particularly for patients within a particular practice organization. This project aims to 1) use analyses of a wide variety of available health care system data to identify differences in access to care, use of health care services and care experiences for African American, Hispanic and non-Hispanic white patients of UNC Health Care; 2) use analysis of health system data and the methods of continuous quality improvement (CQI) to help clinical departments identify the causes for identified racial-ethnic disparities in care and design, implement and monitor interventions to reduce the disparities; and 3) to formally evaluate the usefulness of these approaches in identifying and reducing racial-ethnic disparities in care within UNC Health Care and to broadly disseminate the findings.
Co-Principal Investigators: Donald E. Pathman, M.D., M.P.H.
Funding Source: UNC School of Medicine, Investments in the Future
Total Project Period: 07/07 – 06/10
Total Funding: Total: $630,000; Direct: $630,000; Indirect: $0
Secondary Program Area: Health Disparities

A Study of Associate Degree Nursing Program Success – This project investigates the factors that are associated with "successful" Associate Degree in Nursing (ADN) programs in the North Carolina Community College System

(NCCCS). Program success will be evaluated along three dimensions: 1) What factors are associated with the probability that a student will complete the program on-time? 2) What factors are associated with the probability that a student who has graduated from an ADN nursing program passes NCLEX as a first-time test taker? and 3) What factors are associated with the probability that after a student completes an ADN program and passes the NCLEX that s/he remains in NC to practice nursing or goes on to enroll in an RN to BSN within the UNC system?
Project Director: Erin P. Fraher, M.P.P.; Ph.D.
Funding Source: North Carolina Community College System
Total Program Period: 01/08 – 11/08
Funding 07-08 Fiscal Year: Total: $65,137; Direct: $59,215; Indirect:$5,922

Supplemental Proposal to the North Carolina Community College System to Analyze Measures of Associate Degree Nursing Program Success for Wake Technical and Wayne Community Colleges –
Additional analyses for the Study of Associate Degree Nursing Program Success are necessary because the sample of students analyzed in the original project excluded Wake Tech and Wayne Community Colleges. We will incorporate data which have recently become available for Wake Tech and Wayne Community Colleges and re-run select analyses from the original report. These data will be used to calculate graduation rates and calculate risk adjusted graduation rates for the two programs. Data from the North Carolina Board of Nursing will also be used to determine NCLEX pass rates and workforce retention rates for these two programs. The final product will be an addendum to the original report.
Principal Investigator: Erin P. Fraher, M.P.P., Ph.D.
Primary Funding Source: North Carolina Community College System
Total Project Period: 9/22/08-11/22/08
Total Funding: Total: $15,082; Direct: $13,711; Indirect: $1,371

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– 12/10
Total Funding: Total: $1,893,633; Direct: $1,456,641; Indirect: $436,992

Southern Tick Associated Rash Illness (STARI) – Lyme disease is a chronic infectious disease caused by the bacterium *Borrelia burgdorferi* and transmitted to humans by the bite of the infected *Ixodes sp*. tick. Typical symptoms include fever, headache, fatigue, and, in its preliminary phase, a characteristic skin rash called erythema migrans (EM). During the past decade or so, a series of research reports have uncovered the fact that a second syndrome exists, consisting of a rash that mimics EM and that is readily confused with early Lyme disease. This syndrome, STARI, occurs in the southern United States, is associated with negative cultures and serologies for *Borrelia burgdorferi*, and is generally seen after the bite of a different tick, *Amblyomma americanum*, or the “lone star” tick. Little is known about the distribution or clinical course of STARI, and its cause remains unknown. The purpose of this project is to obtain biological specimens (skin biopsies and serological samples) from patients meeting the diagnostic criteria for STARI, so that scientists at CDC can conduct studies to help determine the etiology of the syndrome. [This is the second North Carolina Network (NCN) Consortium project.]
Principal Investigator: Philip D. Sloane, M.D., M.P.H.
Funding Source: Centers for Disease Control and Prevention
Total Project Period: 03/11/08 – 09/30/09
Total Funding: Total: $97,440; Direct: $77,333; Indirect: $20,107
Secondary Program Area: Medical Practice and Prevention

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 07-08 Fiscal Year: Total: $165,341; Direct: $165,341; Indirect: $0

Analysis of Confidential Data Describing Licensees of the North Carolina Medical Board – This project provides assistance to the NC Medical Board in examining their physician licensee records to improve their ability to monitor quality of care.
Principal Investigator: Thomas C. Ricketts, III, M.P.H., Ph.D.
Funding Source: North Carolina Medical Board
Total Project Period: 09/06 – 07/08
Total Funding: Total: $10,000; Direct: $9,091; Indirect: $909

The North Carolina Network Consortium (NCNC) is a diverse statewide consortium of providers, academic institutions, and patients whose mission is to address pressing questions related to the delivery of primary care health services and the management of primary care problems. NCNC, established to response to AHRQ's Request for Task Order for **Primary Care-Practice Based Research Network (PBRN) ,** 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. The AHRQ PBRN task order contract places UNC on a "short list" for contract work from AHRQ. The NCNC team is highly successful with two projects awarded in the first contract year and with additional contracts awarded in late 2007. The team also collaborates on other projects. In 2007 East Carolina University joined NCNC. The six practice-based research networks (PBRNs) have combined resources in forming the NCNC; they represent over 615 providers in 140 practices across the state, including all three primary care specialties (family medicine, internal medicine, and pediatrics) and strong representation of minority populations. The participating PBRNs include the North Carolina Family Medicine Research Network (NC-FM-RN), the Duke Primary Care Research Consortium (PCRC), the Eastern Carolina Association for Research and Education (E-CARE), the NC Multi-Site Adolescent Research Consortium for Health (NC MARCH), the Mecklenburg Area Partnership for Primary Care Research (MAPPR), and the Robeson County Primary Care research Network (RCPCrN). The participating academic institutions are UNC-CH, Duke University, Carolinas HealthCare System, and East Carolina University. NCNC is co-directed by Philip Sloane, MD, MPH, of UNC's Department of Family Medicine and the Sheps Center for Health Services Research, and by Leigh F. Callahan, Ph.D., of UNC's Departments of Medicine, Orthopaedics and Social Medicine, and the Thurston Arthritis Research Center.

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 2005, AHRQ awarded a second 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. 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 Drug Effectiveness Review Projects I and II – To obtain the maximum value for dollars spent on prescription drugs, purchasers must first understand the relative effectiveness of the various drugs used to treat certain ailments in order to choose the most effective and most economical drugs. The UNC-Chapel Hill Evidence-Based Practice Center is preparing systematic reviews for several classes of drugs including 2nd generation depressants, steroid use in COPD, Alzheimer's treatments, and the use of immuno-modulators for rheumatoid arthritis.
Principal Investigators: Timothy S. Carey, M.D., M.P.H.; Daniel Jonas, M.D., M.P.H.
Funding Source: Oregon Health Sciences University
Total Project Period: 01/04 – 12/09
Total Funding: Total: $558,200; Direct: $516,852; Indirect: $41,348

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: 02/04 – 01/10
Total Funding: Total: $899,907; Direct: $818,098; Indirect: $81,809
Secondary Program Area: Aging, Disability, and Long-Term Care

Decision Aid Testing Lab – Each year the Decision Support Lab engages in a number of research activities. During 2007-08 activities include 1) focus group studies to review existing and draft versions of decision aids, 2) decision quality audits, and 3) a primary care initiative focused on dissemination of decision aids to patients in a local clinic. *Focus group studies* will review decision aid videos on spinal stenosis, ovarian cancer screening, diabetes, and end of life care. Quantitative and qualitative data will be sent to the Foundation so it may be combined with other sites testing these videos. *Decision quality audits* will be reviewed on various topics such as benign uterine conditions, weight loss surgery, coronary artery disease, herniated disc, androgen deprivation treatments for prostate cancer, breast cancer surgery, and osteoarthritis of the hip. In the *primary care initiative* a center will be developed within the UNC General Internal Medicine practice that will be used to integrate decision aids for diabetes, chronic pain, and weight loss surgery into primary care clinic practice.
Principal Investigator: Michael P. Pignone, M.D., M.P.H. (7/04-6/30); Carmen Lewis, M.D., M.P.H. (7/08-6/10)
Funding Source: Foundation for Informed Medical Decision Making, Inc.
Total Project Period: 07/04 – 07/10
Total Funding: Total: $1,415,861; Direct: $1,236,263; Indirect: $179,598

Health and Literacy in Child and Adult Assessment – This project is developing patient reported outcome (PRO) measures for adults and children across all levels of literacy. As a cooperative agreement with NIH, UNC is part of a network of sites to develop measures for adults. UNC is also focusing its efforts on an independent project to develop measures for children ages 8-17. Patient Reported Outcome Measurement Information System (PROMIS) instruments are developed using item response theory with the potential for developing computerized adaptive

testing. Supplemental funds were received in 2007 to expand the scope of the pediatric PRO item banks with the addition of much needed parent proxy-report item banks. These proxy-report banks will capture PROs for children who are too young (under age 8), cognitively impaired, too ill, or too fatigued to complete a self-report PRO instrument.
Principal Investigator: Darren A. DeWalt, M.D.
Funding Source: National Institute of Arthritis and Musculoskeletal and Skin Diseases, NIH.
Total Project Period: 09/28/04 – 07/31/09
Total Funding: Total: $4,337,174; Direct: $3,448,813; Indirect: $888,361
Secondary Program Area: Child Health Services Research

Promoting Safer Sex Among Viremic HIV+ Patients – In a collaborative effort between behavioral researchers and clinical virologists at the UNC Schools of Medicine, Public Health, Social Work, and Dentistry, based on expertise in developing and administering motivational interviews to persons with HIV, this study is using a theory-driven, motivational interviewing-based tool to enhance safer sexual practices among HIV infected persons in a two-arm, randomized, controlled trial. The study also assesses the relationship between risky sexual behaviors and adherence among this group of patients. The long-term goals of this project are to produce and test better methods to reduce the spread of HIV. Supplemental funding was received in 2007 to extend this study into Gujarat, India.
Principal Investigator: Carol E. Golin, M.D., M.P.H.
Funding Source: National Institute of Mental Health, NIH
Total Project Period: 08/15/05 – 07/31/09
Total Funding: Total: $2,572,826; Direct: $1,769,436; Indirect: $803,390

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: Suzanne L. West, Ph.D., M.P.H. and Michael D. Murray, Pharm.D., M.P.H. (2005-2007)
Principal Investigator: Michael D. Murray, Pharm.D., M.P.H. (2007)
Funding Source: Agency for Healthcare Research and Quality
Total Project Period: 09/16/05 – 09/30/10
Total Project Funding: Total: $200,000; Direct: $136,986; Indirect: $63,014

Chronic Back and Neck Pain: Care Seeking Evidence – Using evidence-based medicine techniques, this project is examining the evidence-base for the most common treatments and combinations, identifying common treatments that may not be based on evidence, and setting the stage for future randomized trails or modifications of practice patterns. The aims of this project are to 1) describe the prevalence of chronic low back and neck pain in North Carolina and the demographic and clinical characteristics of individuals with these conditions; 2) describe the care seeking patterns among these populations; 3) identify demographic and clinical factors associated with more common provider and provider-treatment combinations including the costs of care; and 4) compare commonly used treatments and combinations of treatments with current evidence of therapeutic effectiveness.
Principal Investigator: Timothy S. Carey, M.D., M.P.H.
Funding Source: National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS), NIH
Total Project Period: 09/05 – 08/08
Total Funding: Total: $912,500; Direct: $625,000; Indirect: $287,500

Disseminating the Evidence-based Drug Review: Anti-epileptic Drugs for Mood Disorders and Pain – In May 2004, fifty Attorneys General settled consumer protection claims regarding alleged deceptive "off-label" marketing practices of Warner-Lambert (now owned by Pfizer) for $430 million. The "off-label" marketing of Neurontin was undertaken even though 1) scientific evidence supporting its use for these conditions was lacking and 2) Food and

Drug Administration (FDA) approval for its use was only for secondary treatment of epilepsy and for treatment of pain associated with shingles. Approximately 90% of Neurontin prescriptions, however, are for other purposes. As part of the settlement, money was set aside to fund a corrective national advertising program to provide fair and balanced information to prescribers about Neurontin and other anti-epileptic drugs (AEDs). In collaboration with researchers at the Research Triangle Institute (RTI) the project is 1) creating derivative products based on a soon-to-be released evidence-based drug class review and the results of formative market research with relevant audiences, 2) developing and implementing a national dissemination strategy for the derivative products, and 3) cooperating and assisting in evaluating dissemination of the derivative products. Two expert panels were developed, a *Science Panel* to advise on clinical issues related to product development and dissemination and a *Dissemination Panel* to advise on evidence-based dissemination strategy development and implementation for select audiences. Audience research will be undertaken to drive the design of derivative products and strategies for widespread dissemination to prescribers (clinical specialists in primary care and psychiatry). Products that describe and promote evidence-based prescribing practices for AEDs and their use for bipolar and mood disorders are the focus. Databases are being maintained to monitor dissemination activities and impacts and to allow full participation in an external evaluation project design, including assessments of dissemination outcome, impact and process.
Principal Investigator: Cathy L. Melvin, M.P.H., Ph.D.
Funding Source: National Association of Attorneys General (via Vermont State Attorney General's Office)
Total Project Period: 11/05 – 10/08
Total Funding: Total: $3,199,483; Direct: $2,879,536; Indirect: $319,947
Secondary Program Area: Mental Health and Substance Abuse Services and Systems Research

Decreasing Medical Errors by Electronically Disseminating Discharge Summaries to Primary Care Physicians – Patients hospitalized for acute medical conditions are often discharged from the hospital with unresolved subacute and chronic medical problems that are expected to be evaluated by patients' primary care physicians (PCPs) in the ambulatory setting. Although these unresolved issues (along with discharge medications) are often documented in the hospital discharge summary, less than half of all outpatient PCPs ever receive these summaries. The resulting discontinuity of care may mean that patients' unresolved medical problems are never adequately addressed by their PCPs, thus, potentially putting them at increased risk for adverse outcomes. A web-based discharge summary has been developed that is available to outpatient PCPs immediately after discharge that includes discharge medication regimens, as well as the intended discharge plans. The specific aims of this study are to: 1) determine the prevalence of medical errors associated with discontinuity of care from the inpatient to the outpatient setting; 2) determine if the presence of these medical errors is associated with adverse patient outcomes such as re-hospitalizations, emergency room visits, or urgent care visits; and 3) take advantage of a natural experiment to perform an interrupted time series cohort study to measure and compare the frequency of medical errors before and after implementation of an enhanced computerized discharge summary system. (Project was originally funded at the Mount Sinai School of Medicine and then transferred to the SCHSR in April 2008.).
Principal Investigator: Carlton R. Moore, M.D., M.S.
Funding Source #1: Agency for Healthcare Research and Quality
Total Project Period: 03/02/06 – 02/28/10
Total Funding: Total: $473,500; Direct: $511,380; Indirect: $37,880
Total SCHSR Funds: Total: $236,750; Direct: $255,690; Indirect: $18,940
Funding Source #2: Robert Wood Johnson Foundation
Total SCHSR Project Period: 04/08 – 11/08 (final year)
Total SCHSR Funds: Total: $82,704; Direct: $73,843; Indirect: $8,861

Health Literacy and Self-management in Heart Failure – A multi-site randomized trial to test whether a literacy-sensitive intervention to improve heart failure self-management skills can improve health outcomes for all patients, and particularly those with inadequate literacy. A literacy-sensitive, multi-session intervention that teaches essential self-care skills until patients reach behavioral goals, Teach to Goal (TTG), is being compared to a brief educational intervention (BEI) consisting of a single educational session. Outcomes measured include incidence of hospitalizations or death and heart failure-related quality of life over 12 months. In addition, the differences in the proportion of patients achieving appropriate heart failure-related self-care knowledge and behaviors and the effect of TTG for patients with adequate and inadequate literacy is being examined separately.
Principal Investigator: Michael P. Pignone, M.D., M.P.H.
Funding Source: National Heart, Lung, and Blood Institute, NIH.

Total Project Period: 07/06 – 06/11
Total Funding: Total: $3,656,913; Direct: $3,046,276; Indirect: $610,637

American Indian Network for the Study of Clinical Outcomes (NC-AINSCO) – This project is creating a primary-care-based research network (PBRN) of clinicians and practices that serve American Indians in Robeson County, North Carolina [including two health care systems (one with 4 clinics and one with 6), a pediatric group with a large practice and 2 clinics, 2 family practices and, the Robeson County Health Department]. In all there will be 20 physicians and 23 mid-level health care providers in 16 settings. Seventy percent of the providers and 50% of the patients are American Indian. Twenty-five to thirty percent of the patients are African American and 8-10 percent are Hispanic. The mortality rate from complications of diabetes in Robeson County is the highest in the state. It has been assumed that this in large part is an Indian health problem, but no data exists to document this. The project is collecting data for 1 year from all network participants to measure the prevalence of diabetes in the Indian population; to compare the prevalence to that of Blacks, Hispanics and Whites; and to estimate how much co-morbidity with diabetes exists in this population.
Principal Investigator: Bonnie C. Yankaskas, Ph.D.
Funding Source: Agency for Healthcare Research and Quality
Total Project Period: 08/06 – 07/08
Total Funding: Total: $99,450; Direct: $90,409; Indirect: $9,041

Improving Performance in Practice (IPIP): Phase III – This is a national effort to improve the quality of care provided 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. In Phase III the IPIP model developed in Phase II (described earlier) is being implemented 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 A. DeWalt, M.D.
Funding Source: Robert Wood Johnson Foundation (subcontract with Cincinnati Children's Hospital Medical Center)
Total Project Period: 02/07 – 01/09
Total Funding: Total: $130,124; Direct: $116,182; Indirect: $13,942

Improving Performance in Practice Phase IV - Improving Performance in Practice (IPIP) is a national effort to improve the quality of care provided 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 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 A. DeWalt, Ph.D.
Funding Source: Children's Hospital Medical Center of Cincinnati via Robert Wood Johnson Foundation
Total Project Period: 3/1/09-2/28/10
Total Funding: Total: $80,693; Direct: $72,048 ;Indirect: $8,645

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 – 06/12
Total Funding: Total: $109,500; Direct: $75,000; Indirect :$34,500

The Missouri Health Literacy and Diabetes Communication Initiative – The overall objective of this study is to evaluate the efficacy of the American College of Physicians Foundation guide, *Living with Diabetes: An Everyday Guide for You and Your Family*, to improve diabetes self-management. A randomized controlled trial will be conducted in clinics at three sites in Missouri to determine the effectiveness of the *Guide* to improve patient understanding, self-efficacy, and outcomes. University of North Carolina at Chapel Hill faculty will provide knowledge and expertise to inform the study design, intervention implementation, and data analysis as part of a Scientific Advisory Committee. They will also assist in tailoring and adapting the *Guide* to selected clinics in Missouri and will be involved in training clinic staff on how to use the *Guide* with patients.
Principal Investigator: Darren A. DeWalt, M.D.
Funding Source: American College of Physicians (subcontract with Missouri Foundation for Health)
Total Project Period: 10/07 – 09/10
Total Funding: Total: $90,026; Direct: $78,284; Indirect: $11,742

The TeamSTEPPS Adoption in Action – The main objectives of this project include documenting and evaluating the adoption and implementation of TeamSTEPPS^{TM} and determining the impact of this training on teamwork and the process of care in two clinical microsystems within the UNC Health Care System. TeamSTEPPS^{TM} is designed to improve the teamwork of health care workers with the ultimate goal of improving patient safety and outcomes. It has been implemented and evaluated primarily in military hospitals. AHRQ is interested in finding out if it can be successfully implemented and sustained in civilian facilities. [This is the second project funded at UNC under the Accelerating Change and Transformation in Organizations and Networks (ACTION) Task Order Agreement to RTI from AHRQ.]
Principal Investigator: Sheryl I. Zimmerman, Ph.D.
Funding Source: Agency for Healthcare Research and Quality (subcontract with Research Triangle Institute)
Total Project Period: 10/24/07 – 09/30/09
Total Funding: Total: $49,999; Direct: $34,246; Indirect: $15,753

Developing a Health Literacy Universal Precautions Tool Kit – Health literacy universal precautions is defined as structuring the delivery of care in the practice as if every patient may have limited health literacy. To institute health literacy universal precautions, a practice will need a coordinated and clear approach for implementation. This project proposes to develop such an approach by compiling the best, evidence-based tools that are in the public domain or made available by copyright holders, and by developing tools to fill gaps where no practice-appropriate tools exist, thereby creating a Health Literacy Universal Precautions Toolkit. This Toolkit will address the following four key areas: 1) communication training and strategies for implementation for the entire practice; 2) system changes required to support consistent and coordinated care; 3) efficient use of educational media; and 4) linkage with community resources when available. Once the Toolkit is developed, a variety of primary care practices (including those primarily serving African-American, Hispanic, and Native American patients) will be approached to evaluate its face validity and feasibility; and modifications will be made based on this feedback. [This is the third Primary Care-Practice Based Research Network (PBRN) project under the (NCN) Consortium.].
Principal Investigator: Philip D. Sloane, M.D., M.P.H.
Scientific Directors: Leigh F. Callahan, Ph.D. and Darren A. DeWalt, M.D.
Funding Source: Agency for HealthCare Policy and Research (AHRQ)
Total Project Period: 04/08 – 03/10

Total Funding: Total: $250,000; Direct: $198,412; Indirect: $51,588
Secondary Program Area: Medical Practice and Prevention

Health and Literacy in Child & Adult Assessment - PROMIS: Pediatrics Supplement - The UNC-CH PROMIS Independent Pediatrics project is creating several item banks (fatigue, social health, pain, emotional (depressive and anxiety symptoms), physical function, and asthma symptoms). The PROMIS Pediatrics item banks have undergone initial testing (Wave 1) in 4150 children ages 8-17 years old. The sample tested is primarily from the general population with oversampling for children with asthma. Analysis on the Wave 1 pediatrics data is currently ongoing. The first item banks are emerging and they are well poised for further development and/or validation studies. As with the PROMIS adult item banks, some of the pediatrics banks could benefit from the addition of new items and subsequent testing before transitioning into longitudinal validation studies. The Pediatrics banks are being assembled with significantly lower funding levels than comparable work completed on the PROMIS adult item banks. Hence, the overall sample size was smaller for pediatrics and "whole bank" samples were not collected. A variety of chronic illnesses are represented in the current pediatrics sample, however small sample sizes in other disease groups preclude data analysis in chronic disease subgroups other than asthma. This sampling scheme allowed reasonable decisions to be made about inclusion of items in final banks, however, the same level of assurances about unidimensionality afforded the adult project are not possible. In addition the pediatrics project was a PROMIS Independent project and therefore, item development data, item bank documentation, and item calibration data are not currently maintained on the PROMIS Network website. The work in this supplement will mitigate these limitations and provide the best opportunity for the pediatrics item banks to emerge ready for rigorous validation studies in the beginning of PROMIS 2 and allow for wider consistent dissemination of PROMIS tools. Moreover, this supplement establishes partnerships with important future customers of PROMIS tools including data collection efforts in rheumatology, sickle cell disease, rehabilitation, cancer, obesity, and chronic kidney disease. These collaborators have large national research programs and are interested in using PROMIS tools. This collaboration will provide a solid basis for future work in PROMIS 2 and represents a powerful mechanism to achieve outreach for the overall PROMIS Network and the pediatrics project in particular.
Principal Investigator: Darren A. DeWalt, M.D.
Funding Source: National Institute of Arthritis Musculoskeletal Skin Disease
Total Project Period: 6/1/08 – 7/31/09
Total Funding: Total: $373,606; Direct: $266,764; Indirect: $106,842

Health and Literacy in Child & Adult Assessment PROMIS: Social Supplement - The purpose of the PROMIS Social Supplement is to address several shortcomings identified with social domain items during the initial round of item testing (Wave 1). Because Wave 1 was administered to a relatively healthy sample, our goal is to administer Social Domain items to persons manifesting a range of health problems including arthritis and cardiovascular disease. Testing will take place at multiple PROMIS sites, including the University of North Carolina at Chapel Hill, Duke University, and Stanford University. Items will be administered primarily via computer, although some respondents may choose a pen-and-paper option. A total of 1800 individuals will be tested across participating sites. All participants will answer Social Domain items, including Social Functioning and Social Relationship Items (approximately 150 questions).
Principal Investigator: Darren A. DeWalt, M.D.
Funding Source: National Institute of Arthritis Musculoskeletal Skin Disease
Total Project Period: 8/1/08 – 7/31/09
Total Funding: Total: $324,951; Direct: $224,051; Indirect: $100,900

Management by Primary Care Clinicians of Patients Suspected of Having Community-Acquired, Methicillin-Resistant Staphylococcus Aureus (CA-MRSA) Infections: This will (1) identify and evaluate best methods and procedures for primary care practices to follow in managing patients suspected of having community acquired methicillin-resistant *staphylococcus aureus* (CA-MRSA) infections and (2) disseminate widely those strategies found to be effective, efficient, and sustainable. The research will conduct a quasi-experimental interrupted time series analysis in nine primary care practices to evaluate the impact of a bundled group of interventions to improve the diagnosis and management of suspected CA-MRSA. The study employs both traditional quality improvement methods and components of "Best Practices Research" to effectively and efficiently identify feasible practice-level changes that improve care for those patients with suspected CA-MRSA infections.
Principal Investigator: Philip D. Sloane, Ph.D.
Primary Funding Source: AHRQ

Total Project Period: 9/1/08-9/1/10
Total Funding: Total: $399,464; Direct: $369,118; Indirect: $30,346

Cancer Multi-Center Research Consortium (Master Task Order) - A pressing need exists for timely, evidence-based information to guide cancer care delivery. Although new cancer diagnostic and treatment interventions are subject to rigorous evaluation in clinical trials, clinicians often use these interventions in a broader spectrum of cancer patients, clinical settings, and disease conditions than found in clinical trials. Moreover, clinical trials are rarely designed to evaluate new interventions on multiple endpoints, detect uncommon adverse events, or assess health outcomes over longer periods of time. Consequently, clinicians and other stakeholders attempting to make evidence-based decisions confront substantial gaps in knowledge about the safety, effectiveness, and appropriateness of cancer diagnostic and treatment interventions as they are actually used in clinical practice. The CAN-DEcIDE is approved as a site to respond to the Agency for Healthcare Research and Quality's (AHRQ) to conduct comparative effectiveness research in cancer.
Principal Investigator: Michael D. Murray, Pharm.D., M.P.H.; TASK PI: William Carpenter, Ph.D.
Primary Funding Source: AHRQ
Total Project Period: 9/04/08-9/30/10

Work Assignment #1
Health Outcomes of Colorectal Cancer Chemotherapy - Chemotherapy is a cornerstone of treatment for patients with colorectal cancer (CRC). For patients with metastatic disease, it is the primary treatment modality and prolongs overall survival. For patients who have had surgical resection and are found to have stage III disease, adjuvant chemotherapy decreases the likelihood of disease recurrence. Since 2002, several new agents for CRC have been approved by the Food and Drug Administration (FDA) based on clinical trials demonstrating improvement in overall survival. However, these randomized clinical trials have involved patient populations that were substantially younger and healthier than the broader population with advanced colorectal cancer. Elderly patients and patients with co-morbidities may respond differently to chemotherapy and be at higher risk for adverse events. Because evidence is limited on the effectiveness and safety of these chemotherapy regimens outside of the clinical trial setting, formulating treatment recommendations or clinical practice guidelines is challenging. Working collaboratively with researchers from the Brigham and Women's Hospital and the Agency for Healthcare Research and Quality, this research will address this critical gap in knowledge by combining observational data from multiple sources to determine whether the current popular treatments for CRC are safe and effective when used in populations poorly represented in clinical trials. These data will allow us to observe the benefits and harms of colon cancer chemotherapy when it is widely adopted in clinical practice.
Principal Investigator: Michael D. Murray, Pharm.D., M.P.H.; TASK PI: William Carpenter, Ph.D.
Primary Funding Source: AHRQ
Total Project Period: 2/25/09-9/15/09
Total Funding: Total: $440,000; Direct: $298,305; Indirect: $141,695

Work Assignment #2
Analytic Briefs for Supporting Comparative Effectiveness Research and Systematic Reviews in Cancer: Phase 1 Identifying Options for Implementation- Specific to this Work Assignment (WA2), in recent years, the landscape of cancer care has changed greatly due to a multitude of these new interventions having entered the market, and more so than ever before, health and pharmaceutical providers need assistance in developing evidence to inform new policies and strategies for delivering appropriate care to a growing population of individuals with cancer. There is little information that examines the overall use, or short-term or long-term effectiveness of pharmacologic treatments, as well as devices and diagnostics used in cancer diagnosis and treatment. With the growing number of databases available for research to study the adoption of these interventions and their clinical and comparative effectiveness, there is also growing opportunity to systematically approach the need to develop the evidence base on utilization and effectiveness. The objective of WA2 is to identify cancer care interventions for systematic study, and develop multiple options for new, online reporting that AHRQ may publish to advance knowledge about the utilization and comparative effectiveness of medical interventions used in cancer treatment. In addressing this objective, investigators at the UNC CanDEcIDE will partner with investigators at the Brigham and Women's Hospital (BWH) CanDEcIDE coordinating center, AHRQ, and the University of Pennsylvania (Penn) and Acumen DEcIDE analytic centers to identify options for a new series of electronic reports on the different classes of drugs which have commonly been used in the treatment of cancer, as well as newer and other therapeutic agents.

Principal Investigator:	Michael D. Murray, Pharm.D., M.P.H.; TASK PI: William Carpenter, Ph.D.
Primary Funding Source:	AHRQ
Total Project Period:	2/16/09-3/31/09
Total Funding:	Total: $10,000; Direct: $6,779; Indirect: $3,331

Work Assignment #3: Evaluating Outcomes of PET Scanning Using the National Oncologic PET Registry
This is a task order contract assignment under the DEcIDE Cancer Multi-Center Research Consortium program to develop a research protocol to evaluate the outcomes of using positron emission tomography (PET) imaging for cancers and indication covered under the Coverage with Evidence Development (CED) decision by the Centers for Medicare & Medicaid Services (CMS). This protocol will use prospective data collection from the National Oncologic PET Registry (NOPR) to identify cases undergoing PET imaging and to use this registry for relevant data.

Principal Investigator:	Michael D. Murray, Pharm.D., M.P.H.; TASK PI: William Carpenter, Ph.D.
Primary Funding Source:	AHRQ
Total Project Period:	3/31/09-5/31/09
Total Funding:	Total: $33,475; Direct: $22,695; Indirect: $10,780

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.
Primary Funding Source:	National Cancer Institute
Total Project Period:	9/3/08 -- 8/31/13
Total Funding:	Total: $764,678; Direct: $708,036; Indirect: $56,642

Social Networks and HIV Infected Former Prison Inmates - Release from prison is a time of serious dislocation and significant challenges to the well being of the HIV-infected former inmate as well as to their social networks and the communities to which they return. Not only must the pressing exigent questions of food, clothing and shelter be addressed, s/he must also reintegrate into family and social networks. These challenges are particularly acute for the HIV-infected former inmate who, in addition to meeting the needs described above, must also establish a relationship with a regular source of medical care and find a way to pay for expensive medications. Despite the public health implications of the drug and sexual risk taking of these individuals, there have been few comprehensive assessments of the risk behaviors of HIV-infected releases. Our preliminary data indicate that HIV-infected former inmates frequently have multiple sexual partners and low rates of condom usage. A large number of studies have established a central role for social networks in defining HIV risk behaviors. Social network-based studies of HIV-infected individuals have relied largely on respondent driven sampling/recruiting (RDS). RDS strategies have been helpful in mapping connections; however, strategies that rely on self-report to characterize behavior that is stigmatized and illegal face significant limitations. These approaches are particularly problematic in characterizing networks in which partnerships may be anonymous. Given the critical role that interactions between network members play in influencing the spread of the HIV epidemic and the concerns regarding the validity of self-reported behavior, novel and robust approaches are required to provide a more complete understanding of these social structures. The researchers will do a preliminary assessment of the utility of a biomarker for social network involvement by HIV-infected former inmates; specifically, we will characterize the molecular epidemiology of nasal colonization with *Staphylococcus aureus* (SA). To determine whether nasal carriage with SA can be used both to verify an epidemiologic connection as well as to identify connections among people that were previously unknown. In this series of pilot studies, we will: **1)** Characterize SA nasal colonization among 250 HIV-infected inmates incarcerated in the North Carolina Department of Corrections (NCDOC). **2)** Characterize the relationship between SA genotypes and social network characteristics among HIV infected former inmates who are colonized with SA.

Principal Investigator: Carol E. Golin, M.D., M.P.H.
Funding Source: National Institute of Mental Health
Total Project Period: 9/19/08 – 9/18/10
Total Funding: Total:$406,375; Direct: $275,000; Indirect: $131,375
Type: Research

Stroke Telemedicine Access Recovery Project – This project's objective is to establish a community-based collaborative partnership between the University of North Carolina (UNC) and Southeastern Regional Medical Center (SRMC) to provide a telemedicine intervention that improves stroke recovery, to enlist the support of and provide education to the patients' caregivers who are so critical to the recovery process. Evaluative data will be collected to ensure that the overall goal of improving stroke recovery is being met. During the patient's acute hospital stay, the team will: (1) evaluate and recommend the specific rehabilitation therapy needs of each patient; (2) assess and recommend secondary stroke prevention measures; and (3) identify their caregiver support system. Two subsequent follow up consultations at 30 days and 90 days will identify progress with therapy and secondary stroke prevention, and evaluate the level of caregiver support. The research team will make recommendations to improve progress in stroke recovery including secondary stroke prevention
Principal Investigator: Patricia Gregory, M.D.
Funding Source: Duke Endowment
Total Project Period: 1/1/09 – 12/31/11
Total Funding: Total: $349,995; Direct: $349,995; Indirect: $0

NIH State-of-the-Science Conference: Enhancing Use and Quality of Colorectal Cancer Screening - The RTI/UNC Evidence-based Practice Center will conduct a systematic review of the literature and present findings on enhancing use and quality of colorectal cancer screening for the NIH-OMAR State of the Science Conference in February 2010. This conference will help bring clarity to the field by providing up-to-date, high-quality evidence reviews, interpretation of the evidence, and discussion of research needs. Conference findings will foster enhanced colorectal cancer screening uptake, delivery, and outcomes.
Principal Investigator: Timothy S. Carey, M.D., M.P.H.; Russell Harris, M.D., M.P.H.
Funding Source: AHRQ via RTI
Total Project Period: 12/01/08-03/04/10
Total Funding: Total: $185,999; Direct: $126,076; Indirect: $59,923

The Role of Parents' Health Literacy in Children's Oral Health: Health literacy is an individual's capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions. Poor health literacy is a possible contributor to health disparities. This pilot study investigates how health literacy affects parents' understanding of oral health assessments and counseling by their child's pediatrician, and parental decision-making regarding caring for their child's oral health. In 2000, to increase access to pediatric preventive dental care, the North Carolina Medicaid program began reimbursing pediatric practitioners to provide a package of three services including, oral health assessments, parent education about infant oral health, and topical fluoride for the child's teeth. Evaluation is underway to assess the effectiveness of these provider-delivered interventions. This pilot study expands the evaluation to include an examination of parents' understanding of instructions they receive from their child's medical provider.
Principal Investigator: Bhavna Pahel, Ph.D.
Primary Funding Source: NC TraCS Institute, UNC Chapel Hill
Total Project Period: 3/1/09-2/28/10
Total Funding: $2,000

Health Literacy Interventions and Outcomes: An Update of the Literacy and Health Outcomes Review - The RTI/UNC Evidence-based Practice Center will update a 2003 systematic review of the literature on health literacy. The motivation for this review is to understand the relationship between literacy (including print literacy, oral literacy, and numeracy) and health outcomes and to understand what interventions are effective in mitigating the effect of low literacy on health outcomes.
Principal Investigator: Stacey L. Sheridan, M.D., M.P.H.; Timothy S. Carey, M.D., M.P.H.
Funding Source: AHRQ via RTI
Total Project Period: 04/01/09-07/15/10
Total Funding: Total: $160,000; Direct: $108,464; Indirect: $51,536

Development of a Patient-Centered, Literacy-Appropriate, Self-Management Guide for Patients with Post MI - The University of North Carolina at Chapel Hill, in partnership with Louisiana State University Health Sciences Center and the University of California at San Francisco, will develop a toolkit to promote patient self-management for those experiencing post-myocardial infarction (Post Ml). The researcher will identify key messages, conduct focus groups and in-depth interviews with patients and physicians to identify the key messages in the words of the patients and to understand the opinions and priorities of the physicians and the practice work-flow issues. The team will develop and test the prototype guide until consensus is reached. in cognitive interviews to assist in collecting patient feedback on the prototype.
Principal Investigator: Darren A. DeWalt, Ph.D.
Funding Source: American College of Physicians
Total Project Period: 4/1/09-6/30/10
Total Funding: Total: $63,076; Direct: $52,564; Indirect: $10,512

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
Total Funding: Total: $2,648,449; Direct: $1,796,349; Indirect: $852,100

EPC: Refractory Depression, Non-pharmacological Interventions; A Systematic Review – The project reviews the existing literature on non-pharmacological interventions for treating refractory depression. The analytic and clinical validity of different treatment strategies are of interest. Using these key questions, literature search terms and eligibility criteria for clinical studies will be developed. This will be followed by a systematic literature search of relevant databases. Adhering to methodological criteria of systematic reviews, relevant clinical studies will be abstracted and their quality rated. This project will result in an evidence report, summarizing the existing scientific evidence on the use of non-pharmacological interventions for treating refractory depression with respect to the key questions provided by AHRQ.
Principal Investigators: Bradley N. Gaynes, M.D., M.P.H.; Timothy S. Carey, M.D., M.P.H.
Funding Source: AHRQ via RTI
Total Project Period: 5/15/09-5/14/10
Total Funding: Total: $309,999; Direct: $210,169; Indirect: $99,830

Comparative Effectiveness of Drug Therapy for Rheumatoid Arthritis and Psoriatic Arthritis in Adults - The RTI/UNC-CH Evidence-based Practice Center will conduct a systematic review of the literature on comparative effectiveness of drug therapy for rheumatoid arthritis and psoriatic arthritis in adults. The motivation for the report is to compare the various drug therapies used in the treatment of rheumatoid and psoriatic arthritis and to determine which treatments are most effective at reducing symptoms and improving function. Therapies will also be compared for harms and adverse events. This is an update to a previous review and will address the following key questions: 1) For patients with rheumatoid arthritis or psoriatic arthritis, do drug therapies differ in their ability to reduce patient-reported symptoms, to slow or limit progression of radiographic joint damage, or to maintain remission? 2) For patients with rheumatoid arthritis or psoriatic arthritis, do drug therapies differ in their ability to improve functional capacity or quality of life? 3) For patients with rheumatoid arthritis or psoriatic arthritis, do drug therapies differ in harms, tolerability, adherence, or adverse effects? 4) What are the comparative benefits and harms of drug therapies for rheumatoid arthritis and psoriatic arthritis in subgroups of patients based on stage of disease, history of prior therapy, demographics, concomitant therapies, or comorbidities?
Principal Investigator: Katrina Donahue, M.D., M.P.H.; Timothy S. Carey, M.D., M.P.H.

Funding Source: AHRQ via RTI
Total Project Period: 06/15/09-6/07/10
Total Funding: Total: $274,478; Direct: $185,458; Indirect: $89,020

Comparative Effectiveness of Second-Generation Antidepressants in the Pharmacologic Treatment of Adult Depression - The RTI/UNC-CH Evidence-based Practice Center will conduct a systematic review of the literature to compare the various drug therapies used in the treatment of adult depression and to determine which treatments are most effective at reducing symptoms and improving function.
Principal Investigator: Richard Hansen, Ph.D.; Timothy S. Carey, M.D., M.P.H.
Funding Source: AHRQ via RTI
Total Project Period: 06/15/09-6/07/10
Total Funding: Total: $181,850; Direct: $122,872; Indirect: $58,979

The **Patient Reported Outcomes Measurement Information System (PROMIS)** project, a National Institute of Health Roadmap for Medical Research initiative, was developed to advance the science and application of patient-reported outcomes (PRO) in chronic diseases. PROMIS aims to revolutionize the way PRO tools are selected and employed in clinical research and practice evaluation. It also establishes a national resource for accurate and efficient measurement of patient-reported symptoms and other health outcomes in clinical practice. Clinical outcome measures, such as x-rays and lab tests, have minimally immediate relevance to the day-to-day functioning of patients with chronic diseases such as arthritis, asthma or chronic pain conditions. Often, the best way patients can judge the effectiveness of treatments is by perceived changes in symptoms. The PROMIS *Pediatrics* project focuses on the development of PRO item banks across several health domains for youth ages 8–17 years while the PROMIS *Network* project focuses on PROs for adults. These aims and objectives are being realized through a network of participating sites including Stanford University, Northwestern University, Duke University, University of Washington, University of Pittsburgh, and Stony Brook University. A main goal of the UNC PROMIS initiative (housed at the Sheps Center for Health Services Research under the leadership of Dr. Darren DeWalt) is to develop a set of publicly available item banks and computerized adaptive tests for the pediatric clinical research community. Six phases of item development were implemented: identification of existing items, item classification and selection, item review and revision, focus group input on domain coverage, cognitive interviews with individual items, and final revision before field testing. Both pediatric and adult items are currently undergoing testing in various chronic illness populations such as cancer, rheumatic disease, obesity, COPD, sickle cell disease and chronic kidney disease.

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 – 06/13
Total Funding: Total: $4,444,559; Direct: $4,139,783; Indirect: $304,776
Type: Training

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 – 12/09
Sheps Center Funding: Total: $305,315; Direct: $277,559; Indirect: $27,756
Secondary Program Area: Aging, Disability, and Long-term Care

Partnerships for Recovery: Transforming Mental Health in Washington State – This project provides technical assistance and evaluation services to the State of Washington as part of its grant from SAMHSA to transform the way it delivers quality mental health services to its consumers. The State of Washington's current data and evaluation capabilities are being expanded to address Government Performance (GPRA) indicators as well as SAMHSA's National Outcome Measures System (NOMS) to assess overall system performance. The GPRA indicators are being collected, managed, analyzed, interpreted, and reported to monitor, guide and evaluate the *process* of the evolving transformation. In a complementary manner, the collection, management, analysis, and interpretation of the NOMS allow Washington State to assess the *impacts* of the evolving transformation (i.e., who, what, when, where, and how) on individual consumers and their families. More specifically the Sheps Center is 1) assisting in design of a GPRA database to assess and monitor the processes of system transformation across multiple state and local agencies; 2) assisting in the design of a NOMS that identifies and records behavioral health outcomes for persons with severe mental illness and their families; and 3) conducting statistical analyses of the GPRA and NOMS databases to assess outcomes on a statewide and regional basis focused on the utilization, outcomes, costs, and cost-effectiveness of transformed services.
Principal Investigator: Joseph P. Morrissey, Ph.D.
Funding Source: Substance Abuse and Mental Health Services Administration (via Washington State Department of Social and Health Services)
Total Project Period: 02/05 – 09/10
Total Funding: Total: $285,573; Direct: $228,276; Indirect:$57,297
Secondary Program Area: Health Care Organization

SAMHSA's Indefinite Delivery Indefinite Quantity (IDIQ) Initiative – As part of a master task order contract awarded to Apt Associates, a team of Sheps Center researchers has been pre-certified to bid on IDIQ requests. There are no core funds attached to this award but in the future it places UNC and the Sheps Center on a "short list" for contract work from SAMHSA.
Principal Investigator: Joseph P. Morrissey, Ph.D.
Funding Source: Substance Abuse and Mental Health Services Administration (SAMHSA) (subcontract with Abt Associates)
Total Project Period: 02/15/07 – 02/14/12
Total Funding: Total: $0; Direct:$0; Indirect:$0

Qualitative Study of Assertive Community Treatment – The Health Foundation of Greater Cincinnati spent $2.3 million over the last several years to develop 10 Assertive Community Treatment (ACT) teams throughout Ohio and Indiana. ACT is a multi-disciplinary, team-based service delivery approach with a small (1:10) staff-patient ratio, 24/7 hour availability, aggressive outreach, and other services involving medication management, employment, and psychosocial interventions that over the past 30 years has been proven to be effective if fully implemented. This study is being done in response to a recommendation made in the feasibility study conducted at the Sheps Center to determine if sufficient data and agency cooperation existed for a full-scale evaluation of the 10 ACT teams. Semi-structured qualitative interviews with the staff and consumers of the Foundation's 10 ACT teams will be conducted to gain insight into the intra- and interagency systemic changes that occurred as a result of implementing ACT. The insights gained from this study will provide valuable information for communities struggling to incorporate evidence-based practices into their routine care for persons with mental illness and can help address an important challenge issued to mental health authorities and mental health services researchers by the President's New Freedom Commission on Mental Health.

Principal Investigator:	Gary S. Cuddeback, M.S.W., M.P.H., Ph.D
Funding Source:	Health Foundation of Greater Cincinnati
Total Project Period:	06/20/07 – 06/20/08
Total Funding:	Total: $45,000; Direct: $45,000; Indirect:$0
Secondary Program Area:	Health Care Organization

(ICARE) Community Care Program Evaluation - The ICARE Partnership is conducting four diverse demonstration projects in North Carolina to improve patient outcomes. The projects work to increase communication and collaboration between primary care and MH/DD/SAS providers and to increase their capacity to make informed treatment decisions and provide appropriate care. The goals of this evaluation are to provide all ICARE partners and other stakeholders with reliable and timely information on the implementation and outcomes of ICARE's local demonstration projects that can be used to address problems, build on strengths, and leverage future opportunities.

Principal Investigator:	Joseph P. Morrissey, Ph.D.
Funding Source #1:	North Carolina Foundation for Advanced Health Programs
Total Project Period:	07/07 – 06/09
Total Funding:	Total: $47,513; Direct: $44,232; Indirect:$3,281
Funding Source #2:	N.C. Department of Health and Human Services, Division of Medical Assistance (DMA)
Total Project Period:	07/07 – 09/09
Total Funding:	Total: $125,000; Direct: $115,740; Indirect: $9,260
Secondary Program Areas:	Health Care Organization; Health Disparities

Developing a Pilot Intervention to Increase Child Mental Health Service Utilization by African-American Families - There are pronounced racial disparities in children's use of mental health services despite similar prevalence across racial groups of all childhood severe and persistent mental illness except depression. A variety of factors related to racism and stigma, family and illness characteristics, and service system attributes are likely to account for these disparities, but prior research on African-American children is limited in these areas. The TASK project seeks to develop an intervention that offers culturally sensitive ways of helping African-American families to access timely and appropriate care for their children with mental illness. This project is funded through the Carolina-Shaw Comprehensive NCMHD Research Center, devoted to eliminating health disparities through research among African-American populations in North Carolina. The goal of the TASK intervention is to enhance knowledge and motivation to seek timely and appropriate care as well as the know-how to navigate the service system.

Principal Investigator:	Joseph P. Morrissey, Ph.D.
Funding Source:	National Center on Minority Health and Health Disparities
Total Project Period:	9/07 – 5/12
Total Funding:	Total: $714,210; Direct: $489,185; Indirect: $228,025
Secondary Program Area:	Health Disparities

Transitions from Assertive Community Treatment To Less Intensive Services - Today, much attention is being focused on increased access to evidence-based practices and on ways in which they can be disseminated more broadly in the public mental health system for persons with severe mental illness. Assertive community treatment (act) is one of the most thoroughly studied of these practices. Since its inception in the early 1970s, the predominant

thinking has been that persons who need act need it for life; however, this perspective is contrary to the contemporary recovery orientation and presents a challenge to mental health providers because once a team reaches capacity it is no longer a resource to the community. One way mental health agencies have dealt with this capacity problem is to transition act consumers to less intensive services thereby freeing capacity for other persons who need act. However, surprisingly little research has focused on act transitions and outcomes. As a result, a number of basic questions have yet to be adequately answered: who among act consumers can be transitioned to less intensive services, to what level of services, and with what outcomes? This study will use both quantitative and qualitative research methods and administrative data from a large mental health provider in Cincinnati, Ohio, in order to examine and compare the experiences of act consumers who were transitioned to less intensive services and act consumers who were never transitioned to less intensive services. This study promises to provide important information for practitioners, administrators and policy makers struggling with the equitable distribution of evidence-based practices.
Principal investigator: Gary S. Cuddeback, M.S.W., M.P.H., Ph.D.
Funding Source: Ohio Department of Mental Health & Health Foundation of Greater Cincinnati
Total Project Period: 5/08 – 6/10
Total Funding: Total: $86,777; Direct: $82,590; Indirect: $4,187

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: 5/15/09-3/31/12
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 - 06/30/09
Total Funding: Total: $143,266; Direct: $130,242; Indirect: $13,024

Adult Drug Treatment Court Evaluation – Catawba County - In so far as the North Carolina administrative office of the courts (AOC) is charged by the North Carolina general assembly under the North Carolina drug treatment court (DTC) act (N.C.G.S. §7a-790, et seq.) to establish and monitor drug treatment courts (DTC) in North Carolina, this project outlines the required and agreed upon approach to an adult drug court process evaluation that will be adhered to by an evaluation team out of the Sheps Center. The goals of the DTCs are: (1) to reduce alcoholism and other drug dependencies among offenders; (2) to reduce recidivism; (3) to reduce the drug-related court workload; (4) to increase the personal, familial, and societal accountability of offenders; and (5) to promote effective interaction and use of resources among criminal justice personnel. The Sheps Center research team will endeavor to evaluate progress of the Catawba adult drug court team toward these goals through standard methods outlined by the NC Administrative Office of the Courts.
Principal Investigator: Sherri L. Green, Ph.D., L.C.S.W.
Funding Source: North Carolina Administrative Office of the Courts
Total Project Period: 5/1/09-10/31/09

Total Funding:	Total: $25,000; Direct: $22,727; Indirect: $2,273

UNC Tracs Feasibility Study for Web-Assisted Evaluation of Evidence Based Practice Implementation - The focus of this study is (1) to test the utility and fit for North Carolina substance abuse treatment providers of reliable and valid measures for (a) provider readiness-to-change, (b) knowledge acquisition regarding evidence-based practice, (c) change in symptom severity for consumer participants enrolled in evidence-based practice treatment groups, and (d) provider adherence or fidelity to an evidence based model for integrated treatment of substance abuse and trauma associated disorders, and (2) to evaluate the feasibility of a web-interface tool for data collection associated with translation research in public substance abuse treatment settings. Findings will be communicated to the North Carolina Practice Improvement Collaborative and to research and policy staff integral to mental health, developmental disabilities, and substance abuse research-to-practice translation efforts in North Carolina. This pilot study will inform a future translation research agenda in women's evidence-based substance abuse treatment services.

Principal Investigator:	Sherri L. Green, Ph.D., LCSW
Funding Source:	North Carolina TraCS Institute
Total Project Period:	5/1/09-2/28/10
Total Funding:	Total: $10,000; Direct: $10,000; Indirect: $0

ICARE Evaluation: Numerous efforts around the country are trying to identify practice models that can integrate primary care and mental health services with the goal of improving the accessibility, quality, and outcomes of services for persons with mental illnesses who present in general medical settings. Locally, the NC Foundation for Advanced Health Programs, Inc., in collaboration with the NC Division of Medical Assistance (Medicaid) and several community partners, developed a three-year (2006-09) demonstration called ICARE – *Integrated, Collaborative, Accessible, Respectful, and Evidence-based* – to do this at four regional pilot sites across the state involving 20 medical practices. The Sheps Center evaluated the practice demonstration component of ICARE. The evaluation examined both the processes of implementing integrated care at the four pilot sites through interviews and surveys with practice staff as well as the outcomes of care through an analysis of Medicaid claims data. Findings indicated that the ICARE project was successful in demonstrating the receptivity and endorsement of primary care practices in different parts of the state to integrated care arrangements. Medicaid claims analyses showed mixed results with increased access to mental health care and increased Medicaid expenditures at some pilots and decreased access at others. This evaluation was unable to determine whether increased access led to improvements in patient health status due to reliance only on Medicaid claims data and a relatively brief 9-12 month follow-up period. Many of the participating practice staff acknowledged that it would be unlikely for them to sustain integrated care under current Medicaid and other third-party reimbursement provisions. So although integrated care arrangements can be introduced into primary care practices, paying for them on an on-going basis is still a major problem. Sustainable funding remains an important challenge to address in further efforts to integrate primary care and mental health services in North Carolina.

Program on Rural Health Research

Rebecca T. Slifkin, M.H.A., Ph.D., Program Director

The Rural Health Research Program (RHRP) is built on the forty 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. 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: Rebecca T. Slifkin, M.H.A., Ph.D.
Funding Source: Office of Rural Health Policy, HRSA (subcontract with the University of Minnesota)
Total Project Period: 09/03 – 08/13
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 four topics are under investigation: 1) rural emergency medical services: workforce and medical direction, 2) issues surrounding consumer directed health care in Medicaid programs, 3) assessing the impact of transfer of pharmacy services for duel-eligible beneficiaries to Medicare Part D, and 4) state facts about rural specific Medicaid data. The NC RHR & PAC has also been designed to have staff, data, and resources to address other issues as they become salient.
Principal Investigator: Rebecca T. Slifkin, M.H.A., Ph.D.
Funding Source: Office of Rural Health Policy, HRSA
Total Project Period: 08/15/04 – 08/31/12
Total Funding: Total: $2,640,000; Direct: $1,811,004; Indirect: $828,996
Secondary Program Areas: Aging, Disability, and Long-Term Care and Health Care Economics and 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), described previously, provides rapid response for rural-focused data analysis and conducts issue-specific rural research studies in response to emerging policy issues. 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 health policy are made available to policy makers, rural organizations and ORHP. 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, in collaboration with the two other ORHP-funded rural policy analytic centers, the Rural Policy Research Institute Center for Rural Health Policy Analysis and the Walsh Center for Rural Health Analysis, provides these vital services to individuals and organizations involved with rural health policy.
Co-Principal Investigators: Rebecca T. Slifkin, M.H.A., Ph.D.
Funding Source: Office of Rural Health Policy, HRSA
Total Project Period: 09/06 – 08/09
Total Funding: Total: $1,049,984; Direct: $805,811; Indirect: $244,173

Update the Impact Testing of the Proposed Revised Methodology for Designating Underserved Areas – The previous impact testing was based on data from 1998-1999 and was conducted in 2000-2001. In order to proceed

with the review process for the Notice of Proposed Rulemaking within the Department of Health and Human Services and then with the Office of Management and Budget (OMB), it is important to update the testing to judge the effectiveness of the proposed model using more up-to-date data. A number of questions regarding the impact, including identification of areas that may lose or gain eligibility for certain resources, the impact on existing programs targeting the underserved, and specific questions about the proposed methodology are being addressed with the updated impact testing.
Principal Investigator: Thomas C. Ricketts, III, M.P.H., Ph.D.
Funding Source: Bureau of Health Professions, HRSA
Total Project Period: 04/06/07 – 12/31/09
Total Funding: Total: $68,353; Direct: $30,119; Indirect: $98,472
Secondary Program Area: Health Professions and Primary Care

Update of Need for Assistance (NFA) Scales, Benchmarks, and Data Resource Guide – This project will extend and enhance work done previously for the Bureau of Primary Health Care (BPHC) in the development of NFA criteria and benchmarks. This includes 1) reviewing the current NFA data requirements and the benchmarks and reference data for *Barrier* and *Disparities* measures as well as the data required for all applicants; 2) assessing the currency and applicability of the data, benchmarks, and scoring; and 3) making recommendations for changes or substitutions of data or specific criteria. In addition, the Data Resources Guide that is made available to applicants to support their background work will be updated.
Principal Investigator: Thomas C. Ricketts, III, M.P.H., Ph.D.
Funding Source: Bureau of Primary Health Care, HRSA
Total Project Period: 09/26/07 – 09/25/09
Total Funding: Total: $53,593; Direct: $36,954; Indirect: $16,999
Secondary Program Area: Health Professions and Primary Care

Revisions to Proposed Methodology for Designating Underserved Areas - The project will access the status of the data sets on hand in the Sheps Center and available for analysis within the project time frame, review of data availability and a summary. This will include accessing data beyond the time period of the project to help inform the agency staff of impending data releases for later modifications. The research team will run analyses of the current formula using a proportional allocation of the current weights on updated data for the areas and populations in the 2007 impact files. This will include updated MEPS need variables and updated census variables. These activities will result in an interim report to the project officer. The test runs will be repeated to de-bug the programming and to determine the best way to generate data for impact tables as required. Draft tables and maps will be developed and reviewed. Optional impact tables, maps and summaries will be developed after consultation with the project officer. A full and final report will be delivered to the project officer and will include the comparisons of the various options for scaling the final scoring system, the effects on MUAs, HPSAs.
Principal Investigator: Thomas C. Ricketts, III, M.P.H., Ph.D.
Funding Source: Health Resources Services Administration
Total Project Period: 9/25/08-12/24/08
Total Funding: Total: $59,386; Direct: $40,262; Indirect: $19,124

As members of the **Flex Monitoring Team**, staff from the Sheps Center has developed 20 indicators of financial performance designed specifically for critical access hospitals. These indicators are disseminated annually at the institutional level through almost 1,300 hospital-specific reports that are available to administrators through a password protected website. State and national medians are available to the public through a variety of publications. In June 2008, the Administrator of Housing and Community Facilities Programs, USDA, issued a memorandum to all State Directors of Rural Development, advising them of the CAH financial indicators and suggesting that they use these indicators for financial and technical evaluations of CAH proposals to USDA for financing.

In addition, the Rural Health Research Program had the following technical assistance project active this year:

Technical Assistance and Consultation to the Office of Research, Demonstrations and Rural Health Development (ORDRHD) Staff – These funds are being used to assist in fulfilling the ORDRHD mission by benefiting the Critical Access Hospital Network, the Safety Net Advisory Council, and the Community Health

Program. Expected outcomes include improved knowledge of: 1) reporting requirements, 2) policy and provider issues, and 3) Community Health Center grant participants.
Principal Investigators: Rebecca T. Slifkin, M.H.A., Ph.D. (/05-6/08)
Andrea Radford, Dr.P.H. (7/08-6/09)
Funding Source: Office of Research, Demonstration and Rural Development, NC Department of Health and Human Services
Total Project Period: 09/26/05 – 06/30/09
Total Funding: Total: $341,442; Direct: $269,988; Indirect: $71,454

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.

Institutional Training Grant: Training in Epidemiology and Clinical Trials – A training program to prepare obstetrician/gynecologists for careers as independent investigators in reproductive health research. Contraceptive research and development is the dominant content focus, and the conduct of clinical trials is the dominant methodological focus. Trainees participate in forums to review and critique work in progress and will receive intensive research and career development support. Upon completion of the program, trainees will have earned an MPH in Epidemiology. This is a collaborative program of the Schools of Medicine and Public Health at the University of North Carolina at Chapel Hill; the Duke University School of Medicine and the Duke Clinical Research Institute, and Family Health International.
Principal Investigator: David Grimes, M.D.
Program Director: Joanne Garrett, M.P.H., Ph.D.
Funding Source: National Institute for Child Health and Human Development, NIH
Total Project Period: 06/27/01 – 04/30/11
Total Funding: Total: $2,705,020; Direct: $2,541,495; Indirect: $163,525
Type: Training

Community Maternal and Child Health: Eastern North Carolina Part II – The overall goal of this project is to gain new insights into reasons for the disparities in maternal health and child development. The goals of the Network's first study are to 1) examine the factors associated with maternal allostatic load (a possible factor in poor pregnancy outcomes) and 2) evaluate the usefulness of community-partnered participatory research for conducting research on health disparities. These goals will be achieved through a community-academic partnered, multi-site prospective cohort study with the following specific aims: 1) to determine the factors associated with maternal allostatic load and 2) to explore the relationship between maternal allostatic load during the interconceptional period and birth/child health outcomes in a subsequent pregnancy. Partnered together in this community based, multilevel research project are the UNC Center for Women's Health Research, East Carolina University, and the Eastern North Carolina Baby Love Plus Project. Eastern NC community partners have participated fully in the research planning and will have crucial roles to play in the initiation, conduct, and analyses of this cohort study.
Principal Investigator: John Thorp, M.D.
Funding Source: National Institute of Child Health and Human Development, NIH
Total Project Period: 07/07 – 06/12

Total Funding: Total: $2,265,933; Direct: $1,947,364; Indirect: $318,569
Secondary Program Area: Child Health Services Research

It should be noted that along with these research projects, the Center for Women's Health Research has a number of other research projects funded through other departments and centers on the UNC-Chapel Hill campus.

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 Health Education, 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.
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 – 06/13
Total Funding: Total: $5,295,387; Direct: $4,959,613; Indirect: $335,774
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: Gordon H. DeFriese, Ph.D.
Funding Source #1: The Pew Foundation (through The Foundation for Health Services Research)
Total Project Period: 11/91 – 10/94 (extended)
Total Funding: Total: $106,675; Direct: $97,868; Indirect: $8,807
Principal Investigator: B. Lynn Whitener, M.S.L.S., Dr.P.H.
Funding Source #2: National Library of Medicine, NIH (through Academy Health and The Foundation for Health Services Research)
Total Project Period #1: 05/94 – 05/97
Total Funding: Total: $341,485; Direct: $237,470; Indirect: $104,015
Total Project Period #2: 06/97 – 06/00
Total Funding: Total: $533,338; Direct: $393,676; Indirect: $139,662
Total Project Period #3: 07/00 – 11/03
Total Funding: Total: $516,698; Direct: $355,286; Indirect: $161,412
Total Project Period #4: 12/03 – 3/09
Total Funding: Total: $912,642; Direct: $625,097; Indirect: $287,545
Type: Technical Assistance

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.

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 – 06/10
Total Funding: Total: $3,101,411; Direct: $2,908,110; Indirect: $193,301
Type: Training

America's Health Rankings – This project supports the continuing work of the Scientific Advisory Committee to the America's Health Rankings®, an assessment of the relative health of the 50 states in the U.S. These rankings are published annually by the United Health Foundation. The funds support the review of issues and trends by the Committee, the analysis of options in calculating the rankings, and the implementation of improvements to the rankings methodology.

Principal Investigator: Thomas C. Ricketts, III, M.P.H., Ph.D.
Funding Source: United Health Foundation
Funding Received Period #1:` : 05/21/07 – 05/20/08
Total Funding Period #1: Total: $40,000
Funding Received Period #2: 5/21/08-9/30/09
Total Funding Period #2: Total: $55,000
Funding Received Period #3:` : 06/25/09 – 06/24/10
Total Funding Period #3: Total: $58,752

An Observational Descriptive Study of Institutional Review Board (IRB) Practices – Given the widespread reliance on IRBs as oversight bodies for assuring ethical conduct of research, it is surprising that there has been little if any investigation of their decision-making process. This project focused exclusively on decision making about new protocols that are presented to IRBs. By applying both quantitative and qualitative research techniques to tape-recorded IRB deliberations, and to semi-structured interviews with IRB reviewers, the process of decision making is being described and what types of projects are likely to get the most thorough reviews is being determined. The project aims are to: 1) describe the content of IRB decisions about individual research protocols; 2) characterize the interaction processes by which IRBs make decisions; and 3) describe the IRB decision-making processes in terms or organizational design making theory. What domains of decision making, as described by organizational decision making theory, receive the most attention in IRB processes is being determined, as well as determining what variables and protocol variables predict the domains that receive the most attention.

Principal Investigator: Laura C. Hanson, M.D., M.P.H.
Funding Source: National Institutes of Health (via University of Massachusetts)
Total Project Period: 09/06 – 04/11
Total Funding: Total: $29,999; Direct: $20,547; Indirect: $9,452
Type: Research

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:

SHEPS CENTER PI SEMINAR SERIES

- *UK's National Institute for Health and Clinical Excellence (NICE): A Model for the US?*
  Russell Harris, M.D., M.P.H.
  Program Co-Director, Program on Medical Practice and Prevention
  Professor, Department of Medicine

- *Looking for Answers in All the Wrong Places*
  B. Lynn Whitener, Dr.P.H., M.S.L.S.
  Associate Director, Information Sciences

- *Data Linkages*
  William Carpenter, Ph.D., M,H,A,
  Research Assistant Professor, Gillings School of Global Public Health, Department of Health Policy and Management

- *Research in Nursing Homes: Testing the Use of a Decision Aid*
  Laura C. Hanson, M,D,, M,P,H,
  Associate Professor, Division of Geriatric Medicine

- *Pharmacogenomics and Individualized Therapy*
  Daniel Jonas, M,D,, M,P,H,
  Assistant Professor, Division of General Medicine

- *Moving toward the Baccalaureate for Entry to Nursing: Implications for the Supply, Distribution and Retention of Nurses in North Carolina*
  Erin P. Fraher, M,P,P,
  Senior Administrator and Director of the NC Health Professions Data System (NC HPDS) at Cecil G. Sheps Center for Health Services Research

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

Fall 2008

- *Introduction and Overview of Major Sheps Center Projects and Making Use of Center and University Resources*
  Timothy S. Carey, M,D,, M,P,H,
  Professor, School of Medicine, Department of Medicine
  Director, Cecil G. Sheps Center for Health Services Research

- *Publishing in and Reviewing for Journals*
  Morris Weinberger, Ph.D.
  Distinguished Professor, Gillings School of Global Public Health, Department of Health Policy and Administration

- *Leading Multidisciplinary Teams*
  Eugene Orringer, M.D.
  Professor/Associate Dean for Faculty Affairs, Department of Medicine

- *Community-based Research*

Giselle Corbie-Smith
Associate Professor, Department of Social Medicine

- *Translational Research*
  Michael Fried, M.D.
  Professor, Department of Medicine

- *Personalized Medical Research*
  Howard McLeod
  Eshelman Distinguished Professor, School of Pharmacy
- *Advocacy versus Research*
  Pam Silberman, J.D.
  President and CEO, North Carolina Institute of Medicine

- *California Minimum Nurse Staffing Legislation*
  Barbara Mark
  Distinguished Professor, School of Nursing
  Adjunct Professor, Gillings School of Global Public Health, Department of Health Policy and Management

Spring 2009
- *Money Flows Through Centers and Departments*
  Timothy S. Carey, M.D., M.P.H.
  Professor, School of Medicine, Department of Medicine
  Director, Cecil G. Sheps Center for Health Services Research

- *Project Management and Working as a Team*
  Anne Jackman, M.S.W.
  Associate Director, Cecil G. Sheps Center for Health Services Research

- *The Job Talk: Interviewing, Negotiating and Transitions*
  Timothy S. Carey, M.D., M.P.H.
  Professor, UNC-CH, School of Medicine, Department of Medicine
  Director, Cecil G. Sheps Center for Health Services Research

- *Core Competencies in HSR*
  Thomas C. Ricketts, III, Ph.D.
  Professsor, Gillings School of Global Public Health, Department of Health Policy and Management
  Editor, North Carolina Medical Journal

- *Literacy And Health*
  Darren A. DeWalt, M.D., M.P.H.
  Associate Professor, Department of Medicine

- *Report Cards and Pay for Performance*
  Larry Mandelkehr
  Adjunct Instructor, Gillings School of Global Public Health, Department of Health Policy and Management

- *Health Finance*
  George Pink, Ph.D.
  Humana Distinguished Professor, Gillings School of Global Public Health, Department of Health Policy and Management

- *NICE: A Model for the US*
  Russell Harris, M.D., M.P.H.

Program Co-Director, Program on Medical Practice and Prevention
Professor of Medicine

- *The Economic Analysis of Treatment for Aggression*
  Michael Foster, Ph.D.
  Professor, Gillings School of Global Public Health, Department of Health Policy and Management and Department of Child and Maternal Health

- *Implementation Research*
  Dean Fixsen, Ph.D.
  Senior Scientist, Frank Porter Graham Center

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 2008

- *Empirical Outcomes of a Support Program for Parents of Children with Serious Emotional Disturbances*
  Krista Kutash, Ph.D. and Albert J. Duchnowski, Ph.D.
  Florida Mental Health Institute

- *The Administration of Psychotropic Medication to Children Ages 0-4 in North Carolina: An Ecological Analysis*
  Alan Ellis, M.S.W.
  Research Associate, University of North Carolina at Chapel Hill
  Sheps Research Fellow

- *Challenges in Developing Statewide Performance Monitoring*
  Robert Hubbard, Ph.D.
  Director, Institute for Community Based Research, National Development and Research Institutes (NDRI), Adjunct Professor, Department of Psychiatry & Behavioral Sciences, Duke University Medical School

- *Violence & Severe Mental Illness: The View from CATIE*
  Jeffrey Swanson, Ph.D.
  Professor, Department of Psychiatry & Behavioral Sciences, Duke University

- *Inhalant Use and Inhalant Use Disorders: Recent Findings from Two NIDA Studies*
  Matthew Howard, Ph.D.
  Professor, School of Social Work, University of North Carolina at Chapell Hill

- *Science and Practice & Putting Science into Practice*
  Dean Fixsen, Ph.D.
  Senior Scientist, Frank Porter Graham Center, University of North Carolina at Chapel Hill

- *Old Wine in New Skins: Revising the Results of the Fort Bragg Demonstration Project*
  Michael Foster, Ph.D.
  Professor, Child and Maternal Health and Health Policy and Management, University of North Carolina at Chapel Hill

Spring 2009

- *Comparing Assertive Community Treatment and Assisted Outpatient Commitment: Case Manager Reports from The New York Kendra's Law Evaluation*
  Christine Wilder, M.D.

2nd Year Fellow, UNC-CH/Duke Postdoctoral Training Program

- *Future Directions in ACT Effectiveness Research: Reconciling Restrictive Practices, Consumer Self-Determination, and Program Fidelity.*
  Lorna Moser, Ph.D.
  2nd Year Fellow, UNC-CH/Duke Postdoctoral Training Program

- *Justice-Involved Youths Transitioning Into the Adult Justice System: The Role of Mental Health & Related Services*
  Mathew Gayman, Ph.D.
  1st Year Fellow, UNC-CH/Duke Postdoctoral Training Program

- *Creating Evidence Based Interventions for At-Risk Transition Age Youth: Navigating the Interstices of Developmental and Institutional Systems*
  Dannia Southerland, Ph.D.
  1st Year Fellow, UNC-CH/Duke Postdoctoral Training Program

- *Reentry of Mentally Ill Offenders from Washington State Prisons*
  Mindy Engen, Ph.D.
  1st Year Fellow, UNC-CH/Duke Postdoctoral Training Program

- *The Scope and Impact of Child Traumatic Stress*
  John Fairbank, Ph.D.
  Professor, Department of Psychiatry & Behavioral Sciences; Co-Director, National Center for Child Traumatic Stress, Duke University Medical Center, Director, Mid-Atlantic Mental Illness Research, Education & Clinical Center (MIRECC), Durham VA Medical Center

- *Developmental Epidemiology in the Dunedin New Zealand Longitudinal Study: Recent Findings and Future Directions*
  Avshalom Caspi, PhD, Edward M. Arnett Professor
  Terrie E. Moffitt, PhD, Knut Schmidt Nielsen Professor
  Duke Institute for Genome Sciences and Policy, Department of Psychology and Neuroscience, Duke University

- *Evaluation of the National Children's Mental Health Initiative*
  Brigitte Manteuffel, Ph.D.
  Vice President, Macro International Inc.

- *The End of Mental Health Law and Therapeutic Jurisprudence: Can The Courts Revive the Public Mental Health System?*
  John Petrila, J.D., LL.M.
  Professor , Department of Mental Health Law & Policy, University of South Florida

- *A Decade After the First Surgeon General's Report on Mental Health: Gains, Losses, and Challenges in Child Mental Health*
  Barbara J. Burns, Ph.D.
  Professor of Medical Psychology; Director, Services Effectiveness Research Program, Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine

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 2008

- *Safety Net Hospitals and Minority Access to Health Care*
  Gloria Bazzoli (Virginia Commonwealth University)

- *Price Variation in Markets with Homogeneous Goods: The Case of Medigap*
  Nicole Maestas (RAND)

- *The Skinny on Big Box Retailing: Wal-Mart, Warehouse Clubs, and Obesity*
  Charles Courtemanche (UNC-G)

- *Spatial Analytic Methods in Health Utilization and Outcomes Research*
  Lee Mobley (RTI)

- *The Effect of Mothers' Employment and Child Care Decisions on the Body Mass Status of Young Children (Mai Hubbard); Subjective Expectations: Test for Bias and Implications for Choices (Yang Wang)*
  Mai Noguchi Hubbard (UNC) and Yang Wang (Duke)

Spring 2009

- *The Effects of Maternal Employment on the Health of School-Age Children*
  Melinda Morrill (NC State)

- *The Effect of Informal Caregiving on Labor Market Outcomes in South Korea*
  Young Do (Sanford)

- *Organizational Form and Asymmetric Competition: The Dynamics of Surgery Center and Hospital Exit*
  Michael Housman (Wharton)

- *Price-Responsiveness of Physician Selection: Evidence from a Natural Experiment*
  Meredith Rosenthal (Harvard)

- *Who Belongs in Managed Care? Using Premium Policy to Achieve an Efficient Assignment in Medicare*
  Tom McGuire (Harvard)

- *Using Small Area Variations in Procedure Rates to Identify Effects of Revascularization Among the Elderly*
  Sally Stearns (UNC-Chapel Hill)

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 168 articles, book chapters, or other reports. This included 151 articles in peer-reviewed journals, 8 book chapters, and 27 other publications, including annual reports, briefs, data books, evidence reports, fact sheets, reviews, and working papers.

Peer Reviewed Journals

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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 2008-09 fiscal year.

Table 1.1
SUMMARY OF PROPOSAL SUBMISSION AND SUCCESS
July 1, 2008-June 30, 2009
Outcome as of August 31, 2009

Status	Initial Submissions	Supplements Addenda	Continuation Applications	Resub-missions	TOTAL
Total Proposals Submitted	82	23	27	7	139
Funding Notification Received:	56	14	21	6	97
Funding Pending*	2	0	0	0	2
Funded	34	6	21	4	65
Not Funded	20	8	0	2	30
No Decision	26	9	6	1	42

- Verbal notification of funding received, pending official notification.

Table 1.1: This fiscal year (2008-09), the majority of the proposals continued to be initial submissions of new proposals (82), while 27 were requests for continuation funding for projects already funded, 23 were requests for supplemental funds, and 7 were resubmissions of proposals 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, 2008-June 30, 2009 or Submitted in Previous Years
but Final Funding Decisions Not Made by July 1, 2009
(Results as of August 31, 2009)

Status	Number	Percent Funded
Approved for Funding:		
Submitted This Year	112	
Submitted Previous Years	24	
Total	136	
Funded (including verbal notification) of proposals with funding decision:		
Submitted This Year	46	41 %
Submitted Previous Years	8	33 %
Total	54	40 %

In addition to the proposals submitted for funding this year that were approved a number of proposals submitted in previous years were also approved for funding. Table 1.2 describes the success rates, as of August 31, 2009, for those new proposals, supplements/addenda, and resubmissions approved for funding submitted in previous years and those submitted this year. One hundred twelve (112) proposals submitted this year (2008-09) were approved for funding and, of those, the Center received written or verbal notification of funding on 46 (41%). Twenty-four (24) proposals submitted in previous years, but with no final funding decision as of August 31, 2006, were approved for funding as of August 31, 2007. Of those, 8 (33%) were funded. For both sets of proposals, the overall success rate was 40% percent, a decrease from the last two years (58% in 2007-2008 and 62% in 2006-07).

Table 1.3 shows the status of year 1 and total award funding for 2008-09. The total award amount increased over 30% for both year one and total awards over the 2007-08 awards.

Table 1.3
SUMMARY OF FUNDING FOR NEW PROPOSALS, SUPPLEMENTS/ADDENDA, AND RESUBMISSIONS APPROVED FOR FUNDING
Submitted July 1, 2008-June 30, 2009 or Submitted in Previous Years
but Final Funding Decisions Not Made by July 1, 2009
(Results as of August 31, 2009)

(number of proposals)	Year One Award	Total Award
Funded (44)	$7,300,478	$18,430,271
Approved and Waiting Official Notice (2)	$1,066,478	$3,442,478
Still Outstanding (36)	$8,364,481	$10,540,901

SOURCES AND AMOUNTS OF SUPPORT

Total funds *expended* by the Sheps Center during the past year in support of its research, technical assistance, and training activities are summarized by funding source in Table 2. Tracking the Center's growth through funds expended in any given year avoids double-counting awarded funds that are carried over from one fiscal year to the next.

The Sheps Center has had yearly increases in funds expended in four of the five last fiscal years (10.4% increase in 2008-2009, 23.7% increase in 2007-08, 4% increase in 2006-07, 2% decrease in 2005-06 and 9% increase in 2004-2005). The largest proportion of funds expended continues to come from federal sources (61.0%). This percent remained reasonably stable over the last five years, ranging from 57.5 percent in 2004-05 to 63 percent in 2006-07. While NIH overall funding has increased yearly over the last five years, the proportion of funds coming from NIH showed an 8% decrease in percent in 2008-09 (38.1% of the budget as compared to 41.4% in 2007-08,- 40.9% in 2006-07, 32.4% in 2005-06 and 26.5% in 2004-05). Proportion of funding from other federal agencies showed a small increase of 2.3 percent this year (22.9% of the budget compared to 20.6% in 2007-2008, 22.1% in 2006-07, 27.5% in 2005-06, and 31.0% in 2004-05).

Expenditures from other organizations have increased substantially for the past five years (from $1,108,754 in 2004-05 to $2,856,554 in 2008-09). There was a 14.2% increase in 2008-09 as compared to an increase of 73.6% in 2007-2008, 25% in 2006-2007, 4% in 2005-06 and 148% in 2004-05. These expenditures also account for an increasing percent of the budget (16.6% in 2008-09, 15.8% in 2007-08, 11.3% in 2006-07, 9.4% in 2005-06, and 8.9% in 2004-05). The category "Other Organizations" is made up of a heterogeneous group of organizations including professional and disease-specific associations and societies, corporations, state entities outside of North Carolina, and others. As federal funds tighten, principal investigators continue to creatively seek out other funding sources.

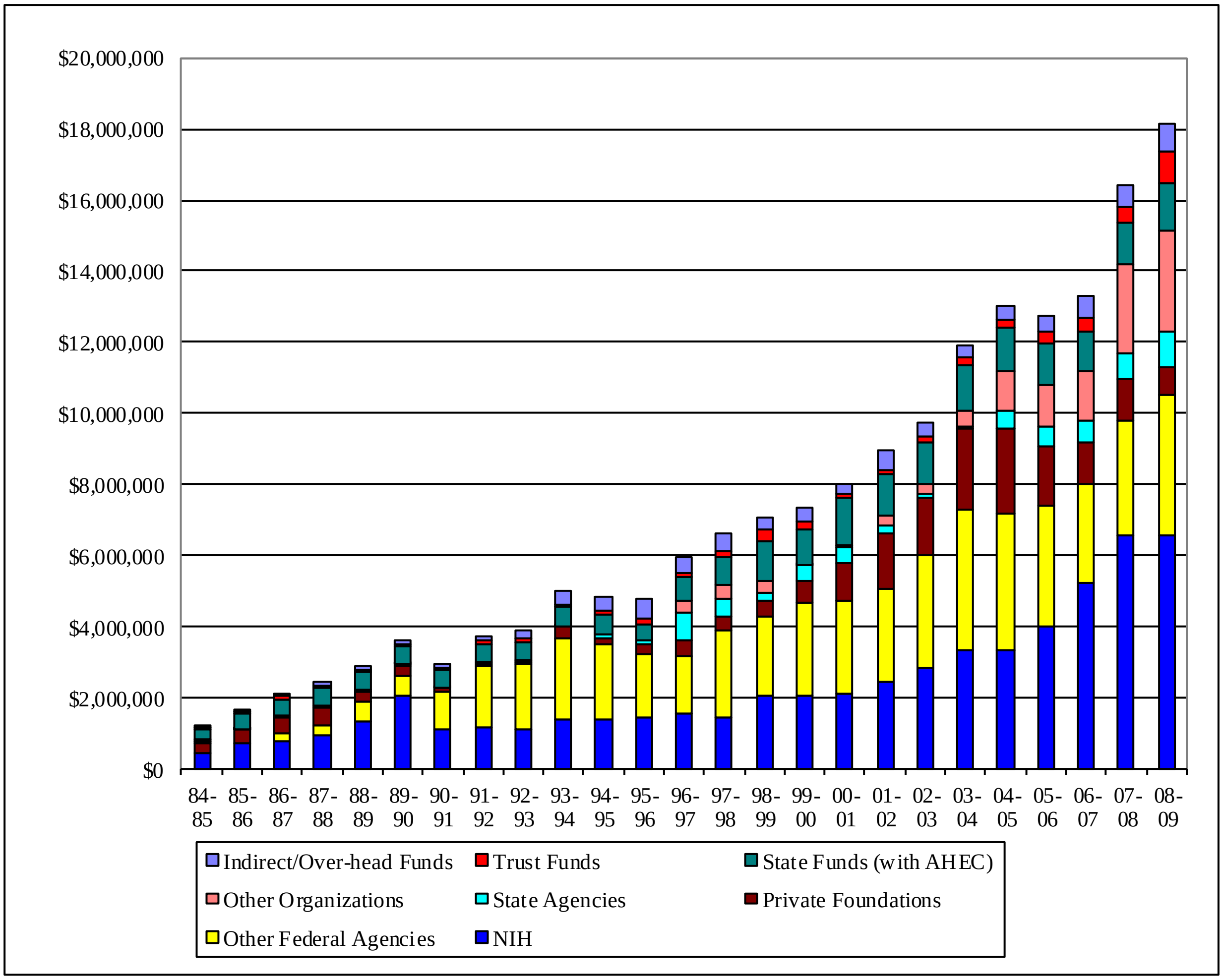
Expenditures from state agencies have had modest growth in the past three years (6.3% increase in 2008-09, 0.04% in 2007-08, and 2% 2006-07) after greater growth in 2004-06 (17% increase in 2004-05 and 420% in 2004-05). In addition, Center staff continued to work with state agencies providing information and advice on an "in kind" basis as part of our overall mission.

Expenditures from private foundations continue to decrease (down 31% in 2008-09, essentially level in 2007-08, 32% in 2006-07, and 29% in 2005-06) reflecting the winding down of several large projects funded by the Robert Wood Johnson Foundation and continuing economic challenges to the foundations.

State funds, which will include AHEC expenditures as a proportion of funding, was essentially stable over the last three years (6.6% in 2008-09, 6.1% in 2007-08, 6.9% in 2006-07, after a decrease of 8.1% in 2005-06 and 7.3% in 2004-05). Overall trust fund expenditures, including those from the NC•IOM, increased by 97.5 percent in 2008-2009, 15.7 percent in 2007-08, and 23 percent in 2006-07. The 2008-09 increase was primarily due to the increase in NC•IOM funding. Finally, expenditures from overhead/indirect funds increased again this year, a 23.2% increase in 2008-09 as compared to 7.7% increase in 2007-08. This is in line with the increase and expenditure of federal dollars.

Figure 1 shows similar information for the fiscal years 1984-85 through 2008-09. A bar graph has been created indicating the total funding for each year and the yearly bars have been proportioned between the following funding sources: NIH, other non-NIH federal agencies, private foundations, NC State agencies, other organizations (including such sources as professional associations, health care delivery organizations, insurance companies and corporations), State funds (hard-money), trust funds, and indirect/overhead. The last 13 bars, 1996-97 through 2008-09, relate to expended funds. The data for previous years are based on a report of the funds that were expected to be expended, rather than those actually expended, although these figures should not be greatly different from those actually expended.

Figure 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)
1984-2009



As can be seen, total funding has increased over this time period with a few exceptions: 1990-91 and slight decreases for 1994-95, 1995-96, and 2005-06. The significant increase in funding seen for 1996-97 (40 percent increase over 1995-96) may partially be due to the changeover to reporting actual expenditures. With the exception of 2003-04 and 2005-06, between 1996-97 and 2008-08 the Center showed a steady increase in expenditures, from 4 to 23.8 percent per year. Prior to 1990-91, NIH funding made up the majority of the Center's federal funding. In 1990-91 other federal funding almost doubled while, with the ending of a project to evaluate the Community Clinical Oncology Program (CCOP), NIH funding was reduced by almost a half. Since that time until last year, other federal funding has made up the majority of the Center's funding, although the gap was narrowing and in 2005-06 NIH funding again was the largest source of support. Several other trends are worth noting. The proportion of funds expended coming from private foundations has varied throughout this time period with larger proportions being seen in the late 1980s and in the early 2000's, although the amount declined the past four years. The most recent increases (and decrease) can be attributed primarily to funding from the Robert Wood Johnson Foundation. In the late 1980s the Center's funding from private philanthropy came primarily from both the Robert Wood Johnson Foundation and the W. K. Kellogg Foundation. Increased funding coming from state agencies can be seen beginning in 1996-97, although the proportion has fluctuated. In 1999-2000 and 2001-02 it dropped considerably due to State budget cuts but has increased yearly since 2004-05. This has been related primarily to funding for evaluation projects with the Divisions of Medical Assistance and Facilities Services and the Women's and Children's Health Section in the Department of Health and Human Services. The Center has actively sought to diversify its funding sources. Continuation of this effort is critical.

In spite of state cutbacks, the Center continues to revert a portion of overhead/indirect funds it receives back to the university department in which the principal investigator has his/her primary appointment.

In addition to the overhead funds generated that come to the Sheps Center, $2,728,810 in overhead funds were generated in 2008-09 that go to the University, up 0.01 percent from $2,690,853 generated in 2007-08.

The Sheps Center has had yearly increases in funds expended in four of the five last fiscal years (10.4% increase in 2008-2009, 23.7% increase in 2007-08, 4% increase in 2006-07, 2% decrease in 2005-06 and 9% increase in 2004-2005).

Table 2
SOURCES AND AMOUNTS OF EXPENDED FUNDS BY FUNDING SOURCE
(Excluding Indirect Dollars Not Coming to the Center)
July 1, 2008 - June 30, 2009

	July 1, 2008-June 30, 2009		
Source	**Amount**		**Percent**
NIH:	$6,553,237		38.10%
NCCAM	$37,003	(0.22%)	
NCI	$672,906	(3.91%)	
NCMHD	$1,450,638	(8.43%)	
NEI	$22,754	(0.13%)	
NHLBI	$730,587	(4.25%)	
NIA	$462,646	(2.69%)	
NIAMS	$874,854	(5.09%)	
NICHD	$793,999	(4.62%)	
NIMH	$670,950	(3.90%)	
NINR	$691,821	(4.02%)	
NLM	$145,079	(0.84%)	
Other Federal Agencies:	$3,939,877		22.91%
AHRQ	$1,476,151	(8.58%)	
CDC	$430,445	(2.50%)	
DOD	$73,277	(0.43%)	
HRSA	$1,993,954	(11.24%)	
OPHS	26,050	(0.15%)	
Private Foundations	$797,302		4.64%
Other Organizations*	$2,856,554		16.61%
State Agencies	$1,001,904		5.83%
State Funds (including AHEC)	$1,142,442		6.64%
Trust Funds	$139,601		0.81%
Indirect/Overhead Funds	$767,821		4.46%
Subtotal	$17,198,738		100.0%
NC•IOM:	$941,246		
State Funds	$192,610	(20.5%)	
Trust Funds	$748,636	(79.5%)	
TOTAL	**$18,139,984**		

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

Table 3
SUPPORT PROVIDED TO PROGRAM AREAS FROM INDIRECT AND STATE FUNDS

(excluding NC•IOM State and Trust Funds)
July 1, 2008 - June 30, 2009

Program Area	Local Phone and Cable	State Car Use*	Computer Equipment Purchased	TOTAL	Percent
Medical Practice and Prevention	$14,172	$3985	$14,099	**$32,256**	**19.9%**
Health Disparities	$17,532	$3382	$11,744	**$32,658**	**20.2%**
Rural Health Research	$6,180		$6,155	**$12,335**	**7.6%**
Aging, Disability, and Long-term Care	$12,672	$1678		**$14,350**	**8.9%**
Women's Health Services Research	$2,304	$40	$1,742	**$4,086**	**2.5%**
Mental Health and Substance Abuse Services and Systems Research	$7,908	$314	$4,305	**$12,527**	**7.7%**
Child Health Services Research	$5,208	$129	$9,350	**$14,687**	**9.1%**
Training Programs	$8,064		$2,998	**$11,062**	**6.0%**
Health Professions and Primary Care	$5,760		$14,033	**$19,793**	**12.2%**
Health Care Economics and Finance	$2,592			**$2,592**	**1.6%**
Health Care Organization Research	$2,940		$1,408	**$4,348**	**2.7%**
"Unaffiliated" Researchers**	$1,152			**$1,152**	**1.7%**
"Program" Support Subtotal	**$86,484**	**$9,528**	**$65,834**	**$161,846**	**100%**
Support Staff***	$24,392	$654		**$25,046**	
General Services****	$22,199	N/A	N/A	**$22,199**	
TOTAL	**$133,075**	**$10,182**	**$65,834**	**$209,091**	

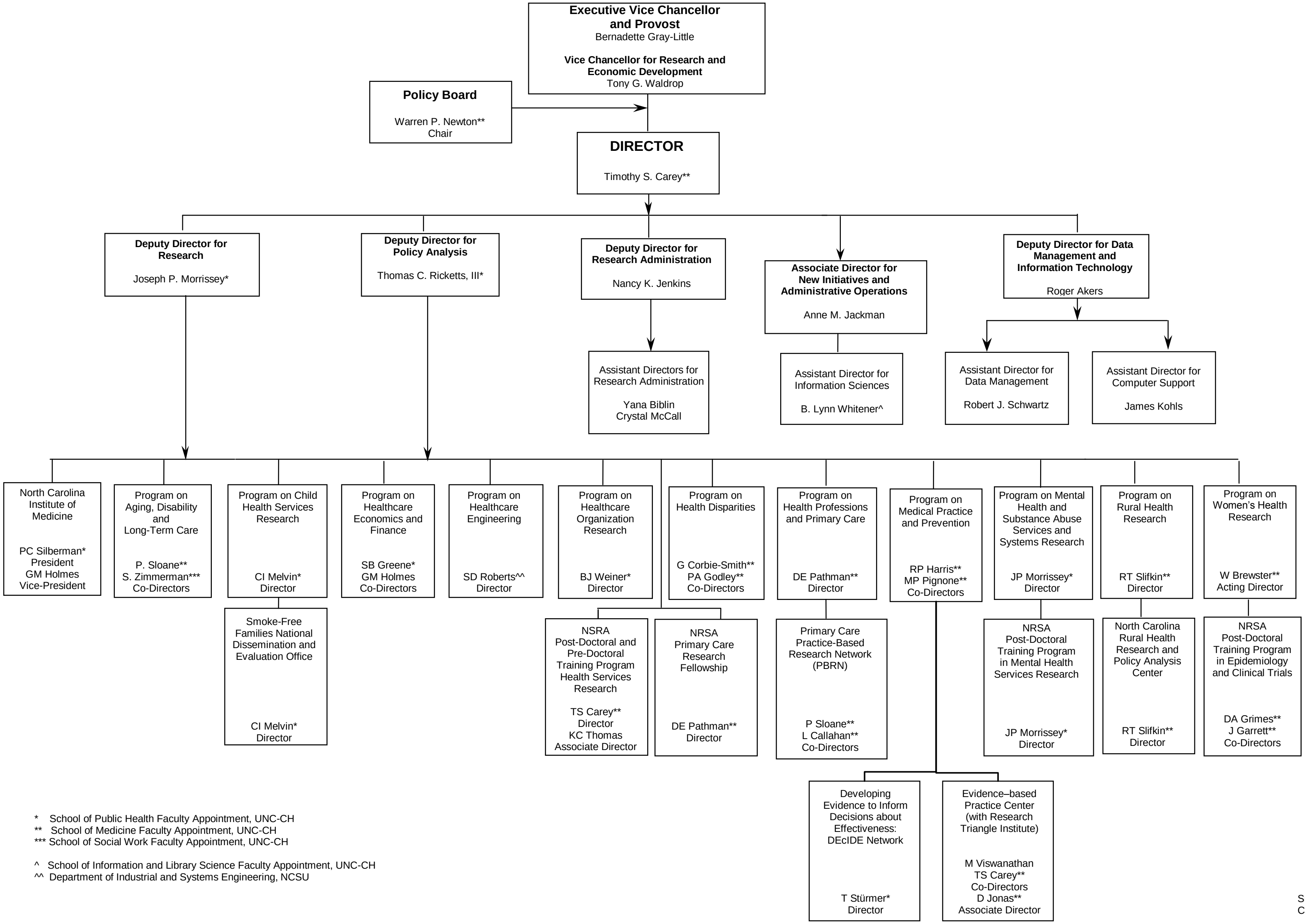
Table 3 describes the support provided to program areas from Center indirect and State funds for local phone and cable service, State car use, and equipment purchases, listed in rank order by total support. The key for the table is as follows:

*	Calculation based on the rate charged by the Motor Pool for renting a State car. This is a conservative estimate based on 41 cents per mile. The Motor Pool has a minimum charge of $32/day.
**	Expenses for research staff (Gordon DeFriese and Glenn Wilson) not directly affiliated with a program.
***	Includes administration, business office, computer support, data management, and library staff.
****	Includes FAX machines; computer modem lines; conference room, workroom, library, and student room space and phones, and general modem lines.

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
2008-2009



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Vice Chancellor for Research and Economic Development
Tony G. Waldrop
- **Policy Board**
Warren P. Newton**
Chair
- **DIRECTOR**
Timothy S. Carey**
  - **Deputy Director for Research**
Joseph P. Morrissey*
  - **Deputy Director for Policy Analysis**
Thomas C. Ricketts, III*
  - **Deputy Director for Research Administration**
Nancy K. Jenkins
    - Assistant Directors for Research Administration
Yana Biblin
Crystal McCall
  - **Associate Director for New Initiatives and Administrative Operations**
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    - Assistant Director for Information Sciences
B. Lynn Whitener^
  - **Deputy Director for Data Management and Information Technology**
Roger Akers
    - Assistant Director for Data Management
Robert J. Schwartz
    - Assistant Director for Computer Support
James Kohls

- North Carolina Institute of Medicine
PC Silberman*
President
GM Holmes
Vice-President
- Program on Aging, Disability and Long-Term Care
P. Sloane**
S. Zimmerman***
Co-Directors
- Program on Child Health Services Research
CI Melvin*
Director
  - Smoke-Free Families National Dissemination and Evaluation Office
CI Melvin*
Director
- Program on Healthcare Economics and Finance
SB Greene*
GM Holmes
Co-Directors
- Program on Healthcare Engineering
SD Roberts^^
Director
- Program on Healthcare Organization Research
BJ Weiner*
Director
- NSRA Post-Doctoral and Pre-Doctoral Training Program Health Services Research
TS Carey**
Director
KC Thomas
Associate Director
- NRSA Primary Care Research Fellowship
DE Pathman**
Director
- Program on Health Disparities
G Corbie-Smith**
PA Godley**
Co-Directors
- Program on Health Professions and Primary Care
DE Pathman**
Director
  - Primary Care Practice-Based Research Network (PBRN)
P Sloane**
L Callahan**
Co-Directors
- Program on Medical Practice and Prevention
RP Harris**
MP Pignone**
Co-Directors
  - Developing Evidence to Inform Decisions about Effectiveness: DEcIDE Network
T Stürmer*
Director
  - Evidence–based Practice Center (with Research Triangle Institute)
M Viswanathan
TS Carey**
Co-Directors
D Jonas**
Associate Director
- Program on Mental Health and Substance Abuse Services and Systems Research
JP Morrissey*
Director
  - NRSA Post-Doctoral Training Program in Mental Health Services Research
JP Morrissey*
Director
- Program on Rural Health Research
RT Slifkin**
Director
  - North Carolina Rural Health Research and Policy Analysis Center
RT Slifkin**
Director
- Program on Women's Health Research
W Brewster**
Acting Director
  - NRSA Post-Doctoral Training Program in Epidemiology and Clinical Trials
DA Grimes**
J Garrett**
Co-Directors

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

^ School of Information and Library Science Faculty Appointment, UNC-CH
^^ Department of Industrial and Systems Engineering, NCSU

SHEPS
CENTER

APPENDIX B

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

2008-09 POLICY BOARD MEMBERS

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University of North Carolina at Chapel Hill

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University of North Carolina at Chapel Hill

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School of Public Health
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School of Public Health
University of North Carolina at Chapel Hill and
Program Development Specialist
Health Program
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Department of Biostatistics
School of Public Health
University of North Carolina at Chapel Hill

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School of Medicine
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Professor and Chair
Department of Maternal and Child Health
School of Public Health
University of North Carolina at Chapel Hill

John Price
Acting Director
Office of Rural Health and Community Care
NC DHHS

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Professor and Chair
Department of Psychiatry
School of Medicine
University of North Carolina at Chapel Hill

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Professor and Chair
Department of Medicine
School of Medicine
University of North Carolina at Chapel Hill

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Professor and Chair
Department of Social Medicine
School of Medicine
University of North Carolina at Chapel Hill

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Dr. Zack D. Owens Distinguished Professor
Department of Surgery
School of Medicine
University of North Carolina at Chapel Hill

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School of Medicine
University of North Carolina Chapel Hill

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Professor and Chair
Department of Dental Ecology
School of Dentistry
University of North Carolina at Chapel Hill

Hugh H. Tilson, M.D., Dr.P.H.
Adjunct Professor
Public Health Leadership Program
University of North Carolina at Chapel Hill