Rural Health Research In Progress

in the Rural Health Research Centers Program

March 2003

Seventh Edition

Foreword

March 2003

This document describes the research and policy analysis projects underway in the Rural Health Research Centers Program of the Federal Office of Rural Health Policy (ORHP), Health Resources and Services Administration, U.S. Department of Health and Human Services. The objective of this program is to produce research and policy analyses that will be useful in the development of national and state policies to assure access to quality physical and behavioral health services for rural Americans.

The eight research and policy analysis centers currently funded in part or in whole by the Federal Office of Rural Health Policy are addressing a wide range of problems in the financing, organization and delivery of rural health care, including:

- Behavioral Health
- Bioterrorism Preparedness
- Defining Rural
- Emergency Medical Services (EMS)
- Health Insurance and Uninsured
- Hospitals: Medicare Reimbursement and Other Issues
- Hospitals: Rural Hospital Flexibility Program
- Long Term Care
- Medicare
- Medicaid and S-CHIP
- Networks and Managed Care
- Public Health and Health Promotion
- Quality
- Racial and Ethnic Populations
- Research-Policy Interface
- Service Delivery
- Special Needs of Women and Children
- State-Level Data
- Workforce

This seventh edition summarizes the Rural Health Research Centers' current research in these areas and provides an anticipated completion date for each project. Descriptions of the Centers and lists of their recent publications are located in the last section of this publication.

For additional information on the Rural Health Research Center Program, please contact Joan Van Nostrand at 301/443-0835 or visit the ORHP website at http://ruralhealth.hrsa.gov

Office of Rural Health Policy
Parklawn Building Room 9A-55
5600 Fishers Lane
Rockville, MD 20857

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- Karen B. Pearson, Editor
- Donna M. Reed, Production
- Christine Richards, Cover Design

Database for Rural Health Research in Progress

Information about all of the current rural health services research conducted by the ORHP-funded rural health research and policy analysis centers and many other investigators is available on the internet. The Maine Rural Health Research Center at the University of Southern Maine receives funding from ORHP to maintain a searchable database of rural health services research and policy analysis in progress. This database includes all ORHP-funded studies, as well as research funded by other federal agencies, major private foundations and other sources.

The URL for the *Database for Rural Health Research in Progress* is:

http://www.rural-health.org

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Maine Rural Health Research Center*
University of Minnesota Rural Health Research Center*

* Partially funded by the Federal Office of Rural Health Policy

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Bioterrorism Preparedness

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Behavioral Health

Effects of Alcohol Use on Educational Attainment and Employment in Rural Youth

As they pass from teens to early adulthood, a significant portion of American youth initiate alcohol use. The rates of past month use of alcohol rise dramatically, from 3 percent at age 12 to 49 percent at age 20. In the past, it was believed that strong social connections present in rural areas reduced youthful consumption of alcohol and substance abuse, but recent studies suggest that the rural-urban gap has closed. Alcohol use in youth has been demonstrated to lower educational attainment, but little is known about whether or not youthful alcohol use affects employment opportunities and lowers wages. This study proposes to examine the effects of alcohol use during the teen years on subsequent educational attainment and employment in a panel of rural residents. If the effects of youthful alcohol use are more severe and more long lasting in rural areas, then programs targeting these locales should be researched and advocated by the Substance Abuse and Mental Health Administration. This study will use a longitudinal panel study design for the period 1979 to 1998, employing the National Longitudinal Survey of Youth-1979 data set (NLSY79). The NLSY79 is an ongoing annual panel survey of persons who were between the ages of 14 and 22 in 1979.

South Carolina Rural Health Research Center
Expected completion date: April 2003
Contact: Judy Shinogle, Sc.D., 803/777-5727 or shinogle@cop.sc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Estimated Mental Health Care Utilization and Costs in Rural Areas

Evidence suggests that the prevalence of mental illness and substance abuse problems is similar in rural and urban adults. However, few studies examine the utilization and costs of all types of mental health care services (traditional, nontraditional, and prescription drug therapy) for rural residents compared to the non-rural population. This study will compare the utilization and costs associated with outpatient, inpatient, and prescription drugs as well as other therapies for people living in urban versus rural areas, according to MSA designation. Data will be obtained from the 1996 and 1997 Medical Expenditure Survey (MEPS). Because of the longitudinal nature of MEPS, we will be able to investigate the utilization and costs over time. In addition, MEPS will allow our models to control for age, race, type of provider, and insurance coverage status. This analysis will assist in targeting policy, research, and programs to improve mental health care in rural populations.

South Carolina Rural Health Research Center
Expected completion date: April 2003
Contact: Judith Shinogle, Sc.D., 803/251 6317 or shinogle@cop.sc.edu
Funder: Federal Office of Rural Health Policy, HRSA

The Role of Advanced Practice Registered Nurses in Addressing Mental Health Workforce Shortages

This project will investigate the current state of training, licensure, reimbursement and practice location choices of Advanced Practice Registered Nurses (APRNs). We will identify six states in which mental health APRNs are now practicing. We will interview key informants at training programs, state nursing associations, state licensing authorities, and third party payers in each state. We will determine, either from our key informants or from existing databases, the number of APRNs currently delivering mental health services in the state, the number being trained each year, and where they are choosing to practice. Our findings will help federal policymakers design incentives aimed at increasing access to community-based outpatient mental health services in rural areas.

Maine Rural Health Research Center
Expected completion date: August, 2003
Contact: David Hartley, Ph.D., 207/780-4513, or davidh@usm.maine.edu
Funder: Federal Office of Rural Health Policy, HRSA

Bioterrorism Preparedness

Understanding the Roles of the Rural Hospital in Responding to Bioterrorist Attacks and Other Emergencies

Serious concerns over whether our health care delivery systems are ready to respond to bioterrorist attacks and other emergencies have been raised in the aftermath of events of September 11, 2001. Public funding to address health care concerns related to homeland security have increased considerably at federal, state, and local levels, and health care providers – including physicians and institutional providers – have become part of the dialogue on readiness for bioterrorist and terrorist attacks. The role of the hospital as a focal point in planning is receiving considerable attention. At the same time, special concerns and issues pertain to the *rural* hospital. Rural hospitals may certainly be expected to provide emergency care resorting from bioterrorist attacks and will likely serve as points from which patients would be transferred. At the same time, there are opportunity costs of defining, implementing, and maintaining rural hospital emergency preparedness. This cost will be very real to rural hospitals, which tend to be smaller in size and generate more limited revenues than urban hospitals.

The purpose of this study is to improve our understanding of rural Emergency Room (ER) capacity and the nature of constraints in expanding capacity in response to demand surge caused by emergencies, including acts of terrorism or bioterrorism. Specific research questions to be addressed include the following:

- What determines ER capacity in rural hospitals?
- What are current constraints on this capacity, e.g., staffing, financial, hospital size, availability of EMS support, supply shortages?
- Do current emergency preparedness plans of rural hospitals address how to meet demand surges, e.g., obtain additional staff, curtail discretionary procedures, provide increased patient transfers?
- Do emergency preparedness plans specifically address bioterrorism? Do these plans address training needs of the rural hospital staff?

The research questions above will be addressed using a comprehensive review of the literature, discussions with hospital administrators, and the convening of a panel of experts. Discussion will be guided by issues and research gaps identified by a comprehensive literature review on the roles of rural hospitals in meeting needs resulting from bioterrorist attacks and other large-scale emergencies.

Project Hope Walsh Center for Rural Health Analysis
Expected completion date: April 2003
Contact: Marc Berk, Ph.D., 301/656-7401 or mberk@projecthope.org
Funder: Federal Office of Rural Health Policy, HRSA

Defining Rural

Rural-Urban Commuting Area Development Project: Demographic Description and Frontier Enhancement

Rural-Urban Commuting Areas (RUCAs) are a new census tract-based classification scheme that utilizes the standard Bureau of Census Urbanized Area (UA) and Urban Place (UP) definitions in combination with commuting information to characterize all the nation's census tracts regarding their rural and urban status and relationships. The codes are based on whether a Census tract is located in a UA or UP and on the destination of its largest and second largest commuting flows. There is considerable current debate and political lobbying about how to define frontier areas. This project has augmented the initial RUCA work by:

- Producing and describing the base 1998 demography of the RUCA code areas;
- Creating quality state maps of the RUCA codes; and
- Making this information and the codes easily available on the Web.

The methods used to accomplish the demographic description of the RUCA codes involve standard cross-tabulation analysis of the code areas nationally, regionally, and by state.

WWAMI Rural Health Research Center
Expected completion date: April 2003
Contact: Gary Hart, Ph.D., 206/685-0401 or ghart@fammed.washington.edu
Funder: Federal Office of Rural Health Policy, HRSA

Validation of Commuting Area Designations for the Elderly

The lack of a valid subcounty alternative to county-based definitions of rural and urban and the reliance on the county as the basic geographic unit has been a significant problem in rural policy and research. While Rural-Urban Commuting Areas (RUCAs) provide a valid subcounty alternative to these taxonomic schemes, there is limited experience using them with health data. This technical project evaluates the extent to which the geographic patterns of ambulatory and inpatient physician utilization from the Medicare data set mirror the commuter-pattern RUCA codes for Washington State. The study examines how well RUCAs capture the functional geographic Medicare travel relationships in Washington State and where differences occur.

WWAMI Rural Health Research Center
Expected completion date: January 2003
Contact: Gary Hart, Ph.D., 206/685-0401 or ghart@fammed.washington.edu
Funder: Federal Office of Rural Health Policy

Emergency Medical Services (EMS)

Emergency Department Use by Medically Indigent Rural Residents

Many emergency department (ED) visits are not paid by third party payers but instead are paid out-of-pocket by the patient or remain uncompensated. Nationally, 15% of all ED visits were self-paid in 1998; in South Carolina during the same year, 26% of ED visits were self-paid. This burden is leading hospitals, including rural hospitals, to close EDs. The project will perform a cross sectional analysis of all ED use in South Carolina in 1998. "Medically indigent" patients will be defined as those for whom payor status is "self-pay" or "none." Findings from this analysis will be used to develop national estimates of the burden of uncompensated ED care in rural areas. In addition, South Carolina data will be studied to determine whether the presence of a federally qualified community health center or rural health clinic in the county reduces the burden of uncompensated ED care.

South Carolina Rural Health Research Center
Expected completion date: April 2003
Contact: Janice C. Probst, Ph.D., 803/777-7426 or jprobst@gwm.sc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Rural EMS Infrastructure

For acute illness and trauma, Emergency Medical Services (EMS) response is crucial. In rural areas, greater distances already result in reduced survival probabilities for rural residents. Any loss of EMS services would increase rural – urban disadvantages. The Medicare Ambulance Payment Reform Act of 2001 (S.1350/HR.3109) and the Medicare Rural Ambulance Relief Act of 2001 (S.1367) have been recent attempts to improve the infrastructure of EMS systems nationwide. However, these solutions may not apply equally well to differently structured EMS systems and across rural areas. Variation in local EMS structure is considerable. In South Carolina, we identified three modes: hospital supported, county supported (tax base), and volunteer supported (donations). Representatives of the National Association of State EMS Directors identified other structures, including joint fire – rescue squads and "ranch squads," a form of volunteer EMS found in frontier counties. The total range of organizational forms for prehospital emergency providers and the geographic distribution of these structures is not known. A county-by county census of the types of EMS infrastructure present would allow the development of a typology of rural EMS programs that could be used to identify at-risk types and areas.

South Carolina Rural Health Research Center
Expected completion date: August 2003
Contact: Janice C. Probst, Ph.D., 803/777-7426 or jprobst@gwm.sc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Survey and Analysis of Emergency Medical Services (EMS) Scope of Practice and Practice Settings Impacting EMS in Rural America

This project will collect and analyze Emergency Medical Services (EMS) regulatory and educational documents from every state through initial communication and cooperation with each state's Office of Emergency Medical Services. This project will be undertaken with the full cooperation and participation of the National Association of State EMS Directors (NASEMSD), which is an organization made up of Directors of each state's and territory's EMS regulatory office. The project manager is a member of the Executive Council of NASEMSD, which will provide the collaboration required for successful completion. Data will be collected using a survey tool combined with each state's existing regulatory documents regarding system and personnel credentialing, educational credentialing, skill and medication formularies, and demographic system and personnel numbers maintained at the state level. A formal evaluation of each state's documents will be undertaken with an objective tabulation of key EMS system and personnel regulatory components. Formal data aggregation and analysis will then be done and result in a monograph describing the current state of EMS across the country with respect to EMS system delivery, educational requirements, scope of practice and practice setting standards. This monograph will also describe and document the diversity of EMS services, personnel, training, education, and resources in rural areas.

North Carolina Rural Health Research and Policy Analysis Center
Expected completion date: August 2003
Contact: Gregory Mears, M.D., 919-966-6440 or gdm@med.unc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Volunteer Labor and the Organizational Structure of Rural Emergency Medical Services (EMS) Providers

Many rural areas are served by low-volume Emergency Medical Services (EMS) providers. By definition, these providers are high cost providers because the costs of capacity cannot be spread over a larger number of EMS transports. Revenue sources of low-volume providers are varied, and the new Medicare Ambulance Fee Schedule may be changing revenue for many providers. The purpose of this study is to examine the cost and revenue structures of low-volume providers and impacts of Medicare payment changes on these providers. Issues addressed include how the cost and revenue structures differ between full-cost and volunteer providers, whether recent changes in Medicare payments have affected providers, and how these changes might affect providers' cost and revenue structures. We characterize low-volume EMS providers with data from 1999 National Survey of Ambulance Providers, examining whether the degree of volunteerism varies with provider characteristics, including provider location, service mix, and average cost. Using results from these analyses, we will select several EMS providers with "high" and several with "low" reliance on volunteers for case studies of their uses of volunteers, their cost and revenue structures, and realized and expected impacts of the new Medicare Ambulance Fee Schedule.

Project Hope Walsh Center for Rural Health Analysis
Expected completion date: June 2003
Contact: Curt D. Mueller, Ph.D., 301/656-7401 or cmueller@projecthope.org
Funder: Federal Office of Rural Health Policy, HRSA

Health Insurance and the Uninsured

Effects of Uninsurance during the Preceding 10 Years on Health Status Among Rural Working Age Adults

Non-metro workers, particularly non-metro Native Americans, African Americans, and Mexican Americans, are more likely to hold occupations characterized by low wages and poor benefits. Uninsured adults make fewer health care visits than their insured counterparts. The Health Insurance Experiment found little effect on health from differing rates of co-payment, but it did not explore *lack* of insurance. We propose to examine the effects of lack of health insurance during the preceding 10 years on self-reported health status indicators in early middle age. This study will use a longitudinal panel study design for the period 1989 - 1998, employing the National Longitudinal Survey of Youth-1979 data set (NLSY79). The NLSY79 is an ongoing panel survey of persons who were between the ages of 14 and 22 in 1979. Beginning in 1998, respondents who reached age 40 were administered an extensive health questionnaire, which will be the source for information on health status. The final report for this project will focus on highlighting the effects of uninsurance, with attention to minority respondents and those living in under-served communities. We will examine effects by time period, because there may be a threshold effect, such that brief periods without insurance are less deleterious than periods of two or more years.

South Carolina Rural Health Research Center
Expected completion date: August 2003
Contact: Janice C. Probst, Ph.D., 803/777-7426 or jprobst@gwm.sc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Health Care for the Uninsured: How Do the Uninsured Use the Rural Safety Net?

"Safety net" refers to the local arrangement of providers and institutions that provide care for the uninsured and those otherwise outside the traditional system of insurance, whether private or government-based. The number of uninsured and underinsured is growing at an alarming rate while the capacity of traditional safety net providers to meet growing needs is severely constrained. In many rural areas where there are few federally-funded safety net providers, the situation is worse in terms of unmet need and/or local provider fiscal burden. In this study, we are examining the safety net from the community perspective in two small rural towns in Alaska and Wyoming to describe how, where, and if the rural uninsured obtain health care and to characterize the process and difficulties involved in obtaining care. Surveys have been administered to generalist physicians in Alaska and Wyoming.

WWAMI Rural Health Research Center
Expected completion date: July 2003
Contact: Sharon Dobie, M.D., M.C.P., 206/685-0401 or dob@u.washington.edu
Funder: Federal Office of Rural Health Policy, HRSA

Health Insurance Coverage and Access to Health Services for the Rural Near Elderly

This project will examine the differences in rates of employer-based, individual, and public health insurance coverage among rural, compared to urban, individuals aged 55 to 64, using the Medical Expenditure Panel Survey (MEPS). We will also explore the effect of different types of insurance, and the lack of insurance, on access to care for rural and urban people in this age group. The study will address three principal research questions:

- What are the differences, if any, in rates of employer-based, individual, and government health insurance for the near-elderly (aged 55-64) in rural versus urban areas?
- What specific socio-economic, employment, health and/or other characteristics place the rural near-elderly at risk of having no insurance or individual insurance? Are these the same as for urban people in this age group?
- What effect(s) do different insurance coverage statuses have on the use of preventive and other health services for rural and urban near-elderly people?

Maine Rural Health Research Center
Expected completion date: January 2003
Contact: Andrew F. Coburn, Ph.D., 207/780-4435 or andyc@usm.maine.edu
Funder: Federal Office of Rural Health Policy, HRSA

Health Insurance Coverage for Rural Americans

The purpose of this project is to create a chartbook on the rural uninsured that provides a detailed description of the health insurance coverage status of rural residents, and the employment, economic, and socio-demographic characteristics associated with different coverage types. The project is a collaboration of the Rural Health Panel of the Rural Policy Research Institute (RUPRI), the Maine Rural Health Research Center, and the Kaiser Commission on Medicaid and the Uninsured. Information from previous research plus analysis of the 1996-1998 Medical Expenditure Panel Survey (MEPS) household component files (with geographic detail-Urban Influence Codes-UICs) will be used to construct the chartbook and to prepare a policy white paper.

RUPRI Center for Rural Health Policy Analysis, and Maine Rural Health Research Center
Expected completion date: March 2003
Contact: Erika Ziller,M.S., 207/780-4615 or eziller@usm.maine.edu
Funder: Kaiser Commission on Medicaid and the Uninsured and The Rural Policy Research Institute

Measuring Rural "Underinsurance"

Multiple studies have documented lower rates of health insurance coverage among rural residents compared to urban residents. To date, there have been limited analyses of the extent to which rural individuals with private coverage are "under-insured" compared to those in urban areas. By "under-insured" we mean that, although they have health insurance coverage, the out-of-pocket costs for medical care may be significantly higher for people living in rural areas.

This project will use the Medical Expenditure Panel Survey (MEPS) conducted by the federal Agency for Healthcare Research & Quality to examine the extent of under-insurance among rural residents compared to urban residents. Using this dataset we will address the following research questions:

- What is the out-of-pocket health care cost burden for privately insured rural residents and how does this compare to that of urban residents?
- To what extent do rural residents with private health insurance coverage report financial barriers to health care? Are there rural-urban differences?
- Do differences in out-of-pocket costs affect rural residents' use of medical care? If so, do these differences persist after controlling for other predisposing, enabling and need factors?

Maine Rural Health Research Center
Expected completion date: August 2003
Contact: Andrew Coburn, Ph.D., 207/780-4435 or andyc@usm.maine.edu
Funder: Federal Office of Rural Health Policy, HRSA

Patterns of Individual Insurance Coverage Among Rural Residents

This study will use the 1993 panel of the Survey of Income and Program Participation (SIPP), to address two broad research goals: (1) to identify and compare the characteristics of rural and urban residents in individual plans, and (2) to investigate the patterns of individual plan coverage, including the duration of individual insurance spells and the paths of entrance and exit into individual insurance spells.

The study will use descriptive analyses to explore the characteristics of rural and urban persons with individual insurance, comparing these people to those with other forms of insurance, or to the uninsured. Using the sample of people who have any spell of individual insurance coverage, we will employ survival analysis techniques to estimate the duration of their individual insurance spells. A variety of multivariate techniques will be used to test the hypotheses that rural purchasers of individual insurance differ significantly from their urban counterparts in terms of socio-demographic, employment and health statuses; and that there are rural-urban differences in the patterns of individual coverage.

Maine Rural Health Research Center
Expected completion date: August 2003
Contact: Andrew F. Coburn, Ph.D., 207/780-4435 or andyc@usm.maine.edu
Funder: Agency for Healthcare Research and Quality

Uninsurance and Welfare Reform in Rural America

Former recipients of welfare are likely to face significant difficulties obtaining health insurance in rural areas, perhaps even greater than in urban areas primarily because jobs in rural areas are less likely to offer health insurance but also because of difficulties with the Medicaid program that might be exacerbated in rural areas. Losing health insurance coverage for mothers leaving welfare could impose a significant risk factor on their families, especially if the mother or children have health conditions or disabilities. Women who have made the transition to work but have lost their health insurance coverage because the job does not offer insurance coverage may return to TANF coverage, knowing that TANF will provide Medicaid coverage.

This project will research the following hypotheses:

- Transitions off of welfare are often not accompanied by the acquisition of private health insurance or the continuation of Medicaid coverage.
- Transitions off of welfare, accompanied by health insurance coverage, will lead to improved health status, and improved access to health care, for former welfare recipients
- Transitions off of welfare, not accompanied by health insurance coverage, will lead to declines in health status, and declines in access to health care, for former welfare recipients.

This project will proceed in two phases. In the first phase, the RUPRI Center will use widely-accepted databases to examine the recent history of uninsurance rates in the U.S., focusing on the low-income population that could be eligible for welfare. Uninsurance rates will be contrasted between urban and rural areas. In this phase, we will estimate uninsurance rates before and after the time period when welfare reform was enacted, for the low-income population in general, and the population specifically eligible for the AFDC or TANF programs. In the second phase of the analysis, the RUPRI Center will concentrate on how welfare reform has impacted the health insurance coverage of welfare recipients and other low-income persons over the period when welfare reform was phased in. Using longitudinal databases available, the project will lead to estimates of how many low-income rural and urban persons remained insured and how many became uninsured over this time period. For those persons who became uninsured, the researchers will seek to determine the factors associated with loss of health insurance coverage.

RUPRI Center for Rural Health Policy Analysis
Expected Completion Date: August 2003
Contact: Timothy D. McBride, Ph.D. 314/516-5530 or mcbride@umsl.edu
Funder: Federal Office of Rural Health Policy, HRSA

Hospitals: Medicare Reimbursement and Other Issues

Comparison of Coding and Billing Practices Among Selected Small Rural and Urban Hospital Outpatient Departments

The Centers for Medicare and Medicaid Services (CMS) estimated the new outpatient prospective payment system (OPPS) was likely to have a greater detrimental impact on Medicare revenue for small rural hospitals than on any other type of hospital. However, CMS suggested the negative impacts projected for small rural hospitals were at least partially attributable to undercoding and coding variations in the data, and that once small rural hospitals began coding appropriately, the negative effects would likely diminish. This project explores whether undercoding or not billing for selected Medicare outpatient services appears to be more of an issue for small rural hospitals than for urban hospitals, and identifies other issues that have arisen in the implementation of OPPS that may be of particular concern to the small rural hospital. Data are gathered qualitatively through a series of interviews with key informants from selected small rural and urban hospitals.

Project Hope Walsh Center for Rural Health Analysis
Expected completion date: May 2003
Contact: Penny Mohr, M.A., 301/656-7401, pmohr@projhope.org
Funder: Federal Office of Rural Health Policy, HRSA

Effective Strategies for Achieving HIPAA Compliance Among Rural Hospitals

The Health Insurance Portability and Accountability Act (HIPAA) of 1996 contained provisions to protect the privacy and security of health information and to standardize electronic transmission of health information. This project examines the impact of the recently enacted HIPAA transactions and privacy standards on rural hospitals. Case studies of rural hospitals have gathered information on:

- Which HIPAA regulations do administrators perceive as being the most burdensome?
- How have hospitals changed their operations, policies and procedures to ensure compliance with HIPAA?
- What resources (e.g., manpower, financial) have hospitals committed to HIPAA compliance activities?

In addition to a report summarizing case study findings, policy briefs outlining key issues for rural hospitals engaged in HIPAA compliance activities will be disseminated. This study is being conducted in collaboration with the RUPRI Center for Rural Health Policy Analysis.

Project HOPE Walsh Center for Rural Health Analysis
Expected completion date: March 2003
Contact: Janet P. Sutton, Ph.D., 301/656-7401 or jsutton@projecthope.org
Funder: Federal Office of Rural Health Policy, HRSA

Factors Contributing to Unit Cost Instability in the Low-Volume Hospital

This project will study year-to-year variation in Medicare inpatient costs within rural hospitals, with a special focus on factors affecting unit costs in low-volume providers. We propose to analyze panel data constructed from eight years of Medicare hospital files, covering reports filed for all general, short-stay facilities with fiscal years beginning between October 1989 through September 1998. We believe that the proposed longitudinal study design could offer substantial improvement in our understanding of the rural hospital cost factions, which will help to evaluate the many options for payment relief and to target the most appropriate PPS reforms to the most appropriate rural providers.

North Carolina Rural Health Research and Policy Analysis Center
Expected completion date: January 2003
Contact: Kathleen Dalton, Ph.D., 919/966-7957, or kathleen_dalton@unc.edu
Funder: Federal Office of Rural Health Policy, HRSA

How Will Rural Hospitals Meet Requirements for Patient Privacy?

The published and proposed regulations for implementing the Health Insurance Portability and Accountability Act (HIPAA) of 1996 will affect how health care organizations handle all facets of managing and using personal health information including coding, reimbursement, patient records and care management. This project will examine the regulations with regard to the implications for HIPAA compliance by rural hospitals. A survey of rural hospitals also will be conducted to examine HIPAA readiness, specific aspects of HIPAA requirements that might prove particularly difficult in small, rural organizational settings, and resources needed for meeting HIPAA requirements. This project is consistent with the RUPRI Center's activities related to the use of information technologies by rural providers, including rural health networks. The review of regulations and the survey will be conducted in collaboration with the Project HOPE Walsh Center for Rural Health Analysis, providing a starting point for case studies of HIPAA implementation strategies by the Walsh Center. Products will include policy briefs based on the review of regulations and on survey results and presentation to policymakers and rural hospital stakeholders.

Rural Policy Research Institute Center for Rural Health Policy Analysis
Expected completion date: March 2003
Contact: *J. Patrick Hart, Ph.D., 402/599-8964 or jpathart@unmc.edu*
Funder: Federal Office of Rural Health Policy, HRSA

Measuring Financial Impact of Payment Policy on Rural Hospitals

This project will explore the potential of using audited hospital financial statements as an alternative data source to the Medicare Cost Report (MCR) to investigate the financial impact of payment policy on rural hospitals. Changes in Medicare payment policies have occurred without measuring the immediate effects of change. A key contributing factor for this delay in policy analysis is the lack of timely financial data for hospitals. The principal source of data, the MCR, provides financial information with as much as a three-year lag and typically a two-year lag.

Additionally, financial data from the MCR, compared to those available from hospital audited financial statements, may be unreliable, often inaccurate, and lack relevant details. Required by the Centers for Medicare and Medicaid Services (CMS), hospitals report their financial data to be used as the basis for determining Medicare payments they receive. As a result, the information contained in the MCR is mainly cost accounting data, with limited financial information. On the other hand, audited hospital financial statements are published to demonstrate the public accountability of hospitals to their stakeholders such as creditors and business partners. Therefore, audited hospital financial statements contain a wide range of financial accounting information related to profitability, liquidity, cash flow, and solvency. And because of their accountability to stakeholders purpose, audited hospital financial statements are usually under closer and stricter scrutiny by outside professionals.

The following hypotheses will guide our investigation:

- Conversion to prospective payment for Medicare outpatient care would have a negative impact on the financial performance of rural hospitals.
- Audited hospital financial statements would show stronger financial impact of Medicare outpatient Prospective Payment System (PPS) than does the MCR.

Financial data from both MCR and audited hospital financial statements will be collected and separately analyzed using a cross-sectional time-series regression model. The results of our analysis are expected to provide: 1) the estimates of the effect of Medicare outpatient payment on the financial performance of hospitals with between 15 and 100 acute care beds; 2) the (simulated) projection of the effect of the upcoming Medicare outpatient PPS on the financial performance of hospitals with between 15 and 100 acute care beds; and 3) the insights into the adjustments for the magnitude of policy impact by using hospital financial statements as an alternative data source to MCR.

RUPRI Center for Rural Health Policy Analysis
Expected completion date: August 2003
Contact: Li-Wu Chen, Ph.D., 402/559-7113 or li-wuchen@unmc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Medicare Payment for Post-Acute Care Transfers

Expansion of Medicare's post-acute care (PAC) transfer payment policy to additional DRG codes is still under consideration by the Centers for Medicare and Medicaid Services. Our study helps inform that debate by providing objective analyses that highlight the perspective of rural hospitals. Specifically, we answer the following questions:

- How did the initial PAC payment change affect hospitals' behavior? Did the impact differ by type of hospital? By pilot DRG?
- How did the payment change affect Medicare revenues for different types of hospitals?
- How would an expansion to additional DRGs affect different types of hospitals?
- How would an expansion to swing bed discharges affect rural hospitals?

We use FY98-FY01 MedPAR hospital discharge data, giving us one year of baseline data and a three-year post-implementation period. In addition, we use cost report data to construct financial vulnerability measures that consider each hospital's income, financial reserves, and liquidity. We examine four-year trends in inpatient length-of-stay and patterns of discharge to the various PAC settings for each of the 10 DRGs, for short- vs. long-stay transfers, and for various categories of hospitals. Hospitals are grouped according to their rural/urban location, size, ownership of a PAC provider, and financial vulnerability. In addition, we simulate payments under the current system and payments if the transfer policy is extended.

Project Hope Walsh Center for Rural Health Analysis
Expected completion date: August 2003
Contact: Julie Schoenman, Ph.D., 301/656-7401 or jschoenm@projecthope.org
Funder: Federal Office of Rural Health Policy, HRSA

Rural Hospital Closures, 1990-2000: Community Profiles and Economic Indicators Before and After the Event

Between 1990 and 2000 there were 460 community hospital closures in the U.S. that did not result from merger or acquisition. Over one third of these were in rural counties. Some hospital closures occur in economically "at-risk" communities, but others may fail even though they are located in economically healthy areas. In both instances, the loss of the facility is likely to have an impact on the economic health of the surrounding communities. This study will investigate the economic impact of hospital closures in non- metropolitan counties, taking into account the economic characteristics and employment trends that may have preceded the event. The study will include the counties of location for 129 non-metropolitan facilities identified as having stopped operations between 1990 and 1997. Using data from the Bureau of the Census, the Bureau of Economic Analysis, the Bureau of Labor Statistics, AHA surveys, Medicare public use files and the Area Resource Files, the populations and the commercial base of these communities will be studied for a period of up to five years before and three years following each closure.

North Carolina Rural Health Research and Policy Analysis Center
Expected completion date: August 2003
Contact: Rebecca Slifkin, Ph.D. 919-966-5541 or becky_slifkin@unc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Rural Hospitals' Access to Capital

There is a concern that rural hospitals have difficulty obtaining loans to update their aging buildings and equipment. Medicare cost report data show that rural hospitals tend to have lower levels of debt and slightly older facilities than urban hospitals. The purpose of this project is to examine why rural hospitals borrow less and have older facilities. For example, rural hospitals may lack access to capital and/or choose to borrow less due to an inability to earn a reasonable return on capital improvements. To analyze the adequacy of capital markets, we will examine both private capital markets and existing government loan programs. This will be the first study to take an integrated approach to examining federal loan programs, state loan programs, grant programs, hospital system funding of capital needs, and the rate of return on rural capital investments. Secondary data sources that will be used include Medicare cost reports and AHA annual survey data. Primary data sources include surveys of state hospital associations and Departments of Health and structured interviews with representatives of public and private sector lenders.

University of Minnesota Rural Health Research Center
Expected completion date: January 2003
Contact: Walter Gregg, M.A., M.P.H., 612/627-4411 or gregg006@tc.umn.edu or
Astrid Knott, Ph.D., 612/624-3566 or knott008@tc.umn.edu.
Funder: Federal Office of Rural Health Policy, HRSA

What is Causing the Increase in Rural Hospital Costs?

In their March 2002 report, the Medicare Payment Advisory Commission (MedPAC) discussed how rural hospitals' reported inpatient costs per discharge have risen faster than urban hospital costs in every year from 1990 through 1999. There is a lack of research that evaluates why rural hospital costs have risen faster than urban hospitals, and a lack of research explaining the variance in rural hospital costs. MedPAC has put forth two recommendations that hinge on assumptions regarding how costs of providing care to Medicare beneficiaries differ in rural and urban areas. First, they recommended a low-volume adjustment for hospitals with limited number of discharges. Second, they recommended elimination of the payment differential in Medicare's base payment given to rural and urban providers. This project examines why reported costs per Medicare discharge have risen faster at rural hospitals than at urban hospitals and what factors contribute to the wide variance in costs among rural hospitals. Using Medicare Cost Report data for 1995-2000, we create a model for explaining changes in hospital costs. Our model is based on the assumption that hospital boards want to improve the quality of care, access to care, employee compensation, and hospital profitability. Because the objective of hospital boards is assumed to stretch beyond maximizing profits, we develop a cost function that includes variables to detect differences in hospital missions and financial resources. Our model tests the degree to which key variables can explain differences in hospital costs and changes in hospital costs over time.

Project Hope Walsh Center for Rural Health Analysis
Expected completion date: August 2003
Contact: Jeff Stensland, Ph.D., 301/565-7401 or jstensland@projecthope.org
Funder: Federal Office of Rural Health Policy, HRSA

Hospitals:
Rural Hospital Flexibility Program

National Rural Hospital Flexibility Program Tracking Project

In 1997, the U.S. Congress created the Rural Hospital Flexibility Program (Flex Program) as part of the Balanced Budget Act (BBA). This highly visible and popular rural health program, authorized in the late summer of 1997, provides for cost-based reimbursement under Medicare to eligible small, relatively remote hospitals. A companion grant program supports state emergency medical services systems (EMS) and hospital participation in the program. The reimbursement component is the responsibility of the Center for Medicare and Medicaid Services (CMS), while the grant program is the responsibility of the Federal Office of Rural Health Policy (FORHP). Funding to support the monitoring efforts of the Flex Program Tracking Team is provided under the grant program appropriation. The Tracking Team is a consortium of six rural health research centers.

As a collaborative project, each Center has lead responsibility for several research components of the study. In 2002/2003, the WWAMI Rural Health Research Center is taking responsibility for assessing state program evaluations, evaluating a number of workforce issues faced by critical access hospitals (CAHs), and looking at the intersection of CAHs and another federal program, the Mississippi Delta Hospital Performance Improvement Initiative. WWAMI is also providing overall project direction and coordination to the participating centers.

There are five main national goals for implementation of the grant component of the Flex Program in the states and participating hospitals. These include:

1. Preparing a state rural health plan.
2. Converting eligible and willing hospitals to critical access hospital (CAH) status.
3. Improving quality of care.
4. Promoting networking among hospitals.
5. Improving emergency medical services.

WWAMI with all Centers
Expected completion date: August 2003
Contact: Gary Hart, Ph.D., 206/685-0401, or ghart@fammed.washington.edu
Funder: Federal Office of Rural Health Policy, HRSA

National Rural Hospital Flexibility Program Tracking Project Dissemination

The purpose of this project is to disseminate the knowledge gained through the National Rural Hospital Flexibility Program Tracking Project. The RUPRI Rural Health Panel works with the project coordinator to prepare documents synthesizing project findings. The Panel works with the Rural Hospital Flexibility Program Technical Assistance Service Center (TASC) to disseminate those documents to state hospital flexibility programs and others. These documents form the basis for presentations by the Panel and others in the consortium to various meetings organized as part of the program and to policymakers tracking developments in the program. RUPRI maintains a Web site for the Tracking Project at http://www.rupri.org/rhfp-track

RUPRI Center for Rural Health Policy Analysis
Expected completion date: Ongoing
Contact: Keith J. Mueller, Ph.D., 402/559-5260 or kmueller@unmc.edu
Funder: Federal Office of Rural Health Policy, HRSA

National Rural Hospital Flexibility Program Review

The North Carolina Rural Health Research and Policy Analysis Center and the UNC Department of Health Policy and Administration are collaborating with the other rural health research and policy analysis centers in a comprehensive review of the Rural Hospital Flexibility Program (Flex Program). Along with the other collaborators, UNC will use a combination of primary and secondary data collection to evaluate the program effects. UNC will conduct:

- A quarterly e-mail survey of state Flex/CAH program coordinators and staff in the CMS central office to monitor changes in CAH conversions and emerging issues. Information gather during these e-mail exchanges will be compiled to form the CAH Management information dataset.
- An extensive telephone interview of Flex Coordinators and key stakeholders in selected states will be used to assess how the Flex Program has contributed to states' rural health policy development, planning and capacity development priorities and initiatives. The project will also identify the states' perceptions of their needs for the future.
- Case studies to examine the effects of CAH hospital closures on access to care for residents and on the local economy. In order to get a better understanding of the impact of hospital closings over time, UNC will select an additional four communities where small rural hospitals, with a profile that closely resembles that of CAH hospitals, closed in the mid to late 1990s.

North Carolina Rural Health Research and Policy Analysis Center
Expected completion date: August 2003
Contact: Melissa A. Fruhbeis, M.S.P.H., 919/966-9985 or melissa_fruhbeis@.unc.edu
Funder: Federal Office of Rural Health Policy, HRSA

National Rural Hospital Flexibility Program Tracking Project: Analysis of CAH Quality Improvement (QI) Strategies

An important component of the National Rural Hospital Flexibility Program is its emphasis on quality of care. Our previous work identified substantial interest in quality improvement (QI) activities despite the fact that only 16 percent of Critical Access Hospitals (CAHs) were accredited by the Joint Commission on Accreditation of Healthcare Organizations.

The purpose of this study is to continue our analysis of the QI strategies used in CAHs. To date, most of the evidence on quality improvement has come from urban-based environments. However, there is a strong environmental context to QI issues both in terms of the types of quality issues that need to be addressed and relevant responses to these issues. This study will document the strategies used by CAHs to enhance their QI activities and provide a better understanding of how small scale rural hospitals can create an organizational culture that supports quality improvement. This study will describe the best practices of three CAHs that have developed innovative QI programs.

University of Minnesota Rural Health Research Center
Expected completion date: August 2003
Contact: Ira Moscovice, Ph.D., 612/624-8618 or mosco001@umn.edu
Funder: Federal Office of Rural Health Policy, HRSA

National Rural Hospital Flexibility Program Tracking Project: Analysis of Network Development Strategies and CAH Performance

This study builds upon the findings of the first three years of the National Rural Hospital Flexibility Program and will identify best practices for CAHs to obtain the resources and expertise necessary to negotiate a post-conversion environment. It will provide additional insights to our understanding of how inter-organizational relationships can contribute to the stability and availability of needed rural health care services.

The study focuses specifically on the following areas: 1) inter-organizational arrangements among CAHs and between CAHs and their affiliated hospital(s); 2) the role of innovative strategies and organizational relationships in post-conversion operational success; 3) the role of capital in post-conversion strategies; and 4) the degree to which CAHs that are not part of a formal network relationship, health care system or under a management contract are able to successfully negotiate their local market demands.

University of Minnesota Rural Health Research Center
Expected completion date: August 2003
Contact: Walter Gregg, M.A., M.P.H., 612/627-4411 or gregg006@umn.edu
Funder: Federal Office of Rural Health Policy, HRSA

National Rural Hospital Flexibility Program Tracking Project: Analysis of the Financial Impact of Conversion on Critical Access Hospitals (CAHs) and the Medicare Program

The purpose of this study is to measure the financial benefits of the National Rural Hospital Flexibity Program in terms of improved Critical Access Hospital (CAH) financial stability over two years, and to examine conversion-induced changes such as capital expenditures that may take more than one year to complete following conversion. Specifically, we will address the following three questions:

- How has the program affected Critical Access Hospitals' profits one and two years after conversion?
- Have expenditures on buildings and equipment increased one and two years after conversion?
- Are wage levels and employment levels increasing or decreasing one and two years after conversion?

University of Minnesota Rural Health Research Center
Expected completion date: August 2003
Contact: Jeffrey Stensland, Ph.D., 540/837-2100 or jstensland@projecthope.org
or *Ira Moscovice, Ph.D., 612/624-8618 or mosco001@umn.edu*
Funder: Federal Office of Rural Health Policy, HRSA

National Rural Hospital Flexibility Program Tracking Project: Emergency Medical Services

As part of the Rural Hospital Flexibility Program (Flex Program) Tracking Project, the Walsh Center is responsible for examining emergency medical services (EMS) activities funded by the Flex Program and for designing a methodology to look at changes in inpatient utilization in new Critical Access Hospitals (CAHs). This assessment of EMS issues, now in its third year, is addressing the degree to which local EMS providers are integrated into rural health networks and related to new CAHs. In addition, the Walsh Center is evaluating specific initiatives by selected states and localities to improve the provision of rural emergency care (e.g., through training programs to enhance skills and establishment of billing systems to be shared by all EMS providers in an area). Walsh Center staff are conducting site visits in three states where EMS is an important component of the state's Flex Program. The goal of these investigations is to document the experiences of these states and communities and to disseminate the lessons they have learned to other states that are dealing with EMS issues.

Project HOPE Walsh Center for Rural Health Analysis
Expected completion date: August 2003
Contact: Julie Schoenman, Ph.D., 301/656-7401 or jschoenm@projecthope.org
Funder: Federal Office of Rural Health Policy, HRSA

National Rural Hospital Flexibility Program Tracking Project: Tracking State Policy and Program Development.

The Maine Rural Health Research Center (MRHRC) is one of six rural health research centers participating in the National Rural Hospital Flexibility Program (Flex Program) Tracking Project. As part of this comprehensive review of the Flex Program, MRHRC researchers have a lead role in exploring the role of state policies in the Flex Program, staffing and workforce issues, and factors related to the success of Critical Access Hospitals (CAHs). In collaboration with researchers from the other centers, MRHRC researchers will use a combination of primary and secondary data to evaluate the impact of the program. During 2002-2003, MRHRC will conduct the following projects:

- In collaboration with the North Carolina Rural Health Research and Policy Analysis Center, MRHRC will survey all 47 state Flex Coordinators to explore issues related to: the goals adopted by the states for their Flex Programs; the resources (including Flex grant funds, staff, relationships with other state agencies/departments and external organizations, and other state funds) necessary to accomplish these goals; and the impact of the Flex Program on the development of state capacity. In addition, MRHRC researchers will conduct key informant interviews in 8-10 states that have successfully implemented the Flex Program and have used their Flex Programs to develop additional state rural health initiatives.

- MRHRC researchers will expand upon their earlier work on CAH staffing patterns by focusing on issues related to staffing efficiency and staffing strategies used by CAHs to develop, recruit, and retain staff. This project will use Medicare cost report data and data from the survey of CAH administrators conducted in Year 3 of the Tracking Project to explore and develop measures of efficiency based on measures of inpatient and outpatient volume and staffing levels. They will also conduct telephone interviews with administrators of 20 CAHs to identify and explore innovative staffing strategies and best practices.

- In collaboration with the WWAMI Rural Health Research Center, MRHRC researchers will explore the determinants of success for CAHs through comparative case studies of six CAHs using a balanced scorecard framework. Site visits will be conducted with three financially successful and three financially challenged CAHs to explore the strategic and management issues undertaken by these facilities related to: patient satisfaction; clinical utilization and outcomes; financial performance and human capital support; and system integration and change. Researchers will compare the extent to which these two categories of CAHs differ in terms of the types and range of strategic and management initiatives undertaken and implemented.

  Maine Rural Health Research Center
  Expected completion date: August 2003
  Contact: Andrew Coburn, Ph.D., 207/780-4435 or andyc@usm.maine.edu
  Funder: Federal Office of Rural Health Policy, HRSA

Long Term Care

A Comparison of Assisted Living in Rural and Non-Rural Areas

The project involves secondary analysis of an existing database on a national probability sample of all assisted living facilities (ALFs). It also includes a secondary analysis of residents, staff, and facility policies and practices in a nationally representative sample of ALFs that offer either high services, high privacy or both. The analysis compares types of facilities and residents in rural and non-rural areas. It examines the effect of location (rural/non-rural) on price as well as the affordability of assisted living, services, staffing, admission and retention policies, and the potential for residents to "age in place." It also examines differences in some quality indicators, such as privacy and environmental autonomy for residents, resident satisfaction, staff knowledge, retention/turnover, and satisfaction, and the availability and provision of services to meet scheduled and unscheduled needs.

Southwest Rural Health Research Center
Expected completion date: Spring 2003
Contact: Catherine Hawes, Ph.D., 979/458-0081 or hawes@srph.tamushsc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Comparing Assisted Living Facility Residents' Medication Use in Rural and Non-Rural Assisted Living Facilities

The most rapidly growing form of residential long-term care is assisted living, but little is known about medication use among this population. Using data from a nationally representative sample collected as part of the ASPE-funded National Study of Assisted Living for the Frail Elderly, this research project will analyze patterns of medication use among assisted living residents in rural and non-rural areas. These data have never been coded or analyzed before. Drug categories will also be used according to Beers et al. criteria, to assess drug-drug interactions as well as drug-age inappropriateness. Activities of Daily Living (ADLs) and cognitive scores of residents identified as having drug-age and/or drug-drug interactions will be compared to residents free of potentially adverse interactions.

Southwest Rural Health Research Center
Expected completion date: August 2003
Contact: Miguel A. Zuniga, M.D., Dr.P.H., 979/862-4142 or mzuniga@srph.tamushsc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Labor Costs and the Area Wage Index in Skilled Nursing Facilities

This project will examine regional patterns in Skilled Nursing Facility (SNF) hourly wages, using data from Fiscal Year 1997 cost reports for all free-standing and hospital-based facilities. We will analyze wage differentials by community size and regional location with the objective of comparing these to the patterns found in inpatient hospital wages from the same areas in order to assess the impact of HCFA's use of a hospital wage index to adjust SNF payment rates.

North Carolina Rural Health Research and Policy Analysis Center
Expected completion end date: February 2003
Contact: Kathleen Dalton, Ph.D., 919/966-7957 or kathleen_dalton@unc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Nursing Home Quality: A Comparison between Rural and Non-Rural Nursing Homes

The research examines the effect of location (rural/non-rural) on the characteristics of nursing homes and residents, and on various indicators of quality of care, using two national data sets. The Online Survey and Certification Reporting System (OSCAR) contains data on all nursing homes that participate in the Medicare and Medicaid programs, and the Minimum Data Set includes data on the health, physical and cognitive functioning, and aspects of process quality for all residents in these facilities.

Southwest Rural Health Research Center
Expected completion date: August 2003
Contact: Charles D. Phillips, Ph.D., 979/458-0080 or phillipscd@srph.tamushsc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Post-Acute Care: A Rural and Urban Comparison

One-quarter of Medicare beneficiaries discharged from an acute hospital are discharged with post-acute care services. This multi-phase analysis examines whether discharge patterns for and use of post-acute care services by rural and urban hospitalized Medicare beneficiaries differ and, if they do, what are the sources of these different patterns. We used claims data from the 2000-2001 Medicare Standard Analytical Files (SAF) to examine rural and urban patterns of post-acute placement in a (Skilled Nursing Facility (SNF), medical rehabilitation facility, or home care following discharge from an acute hospital. We selected a limited number of diagnoses (including hip fractures, chronic obstructive pulmonary disease, and stroke) for which post-acute care is typically required and for which care is often rendered in multiple post-acute settings. Using patient level data, we constructed episodes of care for those individuals who were hospitalized in the first three months of the calendar year. The post-acute records from the corresponding home health, physician, and SNF SAFs for these beneficiaries were extracted. Claims data are supplemented with county-level provider supply measures from the Area Resource File and Medicare's Provider of Services files.

In the first phase of this study, we used descriptive statistics to determine whether rural/urban differences in utilization of post-acute services, as measured by the average number of admissions, average lengths of stay or average units of services received, number of admissions, are statistically significant. Separate analyses are conducted for each type of post-acute setting as well as for each diagnostic group. In the second phase of the study, we will focus on substitution of care across different post-acute care settings and examine patterns of use of multiple post-acute settings within a specific episode of care.

Project Hope Walsh Center for Rural Health Analysis
Expected completion date: August 2003
Contact: Sheila Franco, 301/656-7401 or sfranco@projecthope.org
Funder: Federal Office of Rural Health Policy, HRSA

Medicaid and S-CHIP

Access to Health Care for Young Rural Medicaid Beneficiaries

This two-year study will examine access to health care among rural children ages 0-17 who are enrolled in some type of Medicaid managed care program, and will compare this access across types of programs and, within program type, to that of urban beneficiaries. Access to care will be assessed by means of a mailed survey sent to the parents of Medicaid children in five states chosen for their geographic diversity. Potential questions will focus on such issues as the ability to find a participating health care provider within a reasonable distance, coordination of care concerning services such as specialty care that are more likely to be located in urban areas, use of dental services and transportation problems.

North Carolina Rural Health Research and Policy Analysis Center
Expected completion date: August 2004
Contact: Victoria Freeman, Dr. P.H., R.N., 919-966-6168, or victoria_freeman@unc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Medicaid Managed Care in Rural Areas: Innovative Case Management Strategies

Continuing the work on tracking and assessing the extent of Medicaid managed care in rural areas, this project will focus on states with innovative case management strategies and look specifically at how these programs operate in rural communities. Year Two of the project will include a three-state case study to showcase exemplary rural PCCM or partially capitated programs that include disease management or care management strategies.

North Carolina Rural Health Research Center
Expected completion date: January 2003
Contact: Pam Silberman, Dr.P.H., 919/966-2670 or pam_silberman@unc.edu
Funder: Federal Office of Rural Health Policy, HRSA

The State Child Health Insurance Program and Access to Medical Transportation Program Services

In 1997, Congress created the State Children's Health Insurance Program (S-CHIP) in response to concern over the growing number of children and families nationally without health insurance. Despite the growth and expansion of S-CHIP, there is practically no empirical information available regarding either the use of S-CHIP resources to assure access to medical services or analysis of the barriers to adequate transportation. Given this disparity, the purpose of this research is to create a typology of state CHIP models and the interface between each and the existing Medical Transportation Program (MTP) available to Medicaid recipients in select states.

In addition, the project compares rural and non-rural variances in patterns of utilization of MTP service in S-CHIP programs, and identifies the strengths and weaknesses of the various approaches utilized by the different state MTP models. Finally, the project compares the performance of the various state models in assuring access to covered medical services and identifies barriers to S-CHIP services.

Southwest Rural Health Research Center
Expected completion date: August 2003
Contact: Craig Blakely, Ph.D., MPH , 979/862-2419 or blakely@srph.tamushsc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Medicare

Assessment of Barriers to the Delivery of Medicare Reimbursed Diabetes Self-Management Education in Rural Areas.

The national prevalence of diabetes is estimated at 15.7 million people. African Americans and Hispanics are almost twice as likely to have diabetes than whites. To aid in the management of this disease, the 1997 Balanced Budget Act provides Medicare funding for American Diabetes Association recognized Diabetes Education programs. The purpose of these new reimbursement criteria is to expand diabetes education services, making them more accessible. Reimbursement requirements, however, may affect the accessibility of diabetes education services in rural areas. For instance, Medicare will not provide reimbursement if the recipient is also an outpatient in a rural health clinic or federally qualified health center. Additionally, in order to receive reimbursement, providers must meet a stringent set of quality standards that may exceed the limited resources of a rural practitioner. The purpose of this study is two-fold: To determine the availability of diabetes educators in rural areas, with particular emphasis on rural counties with high levels of poor and minority populations, and to explore barriers rural practitioners face in providing diabetes education services.

South Carolina Rural Health Research Center
Expected completion date: August 2003
Contact: Saundra Glover, Ph.D., 803/251-6317 or sglover@gwm.sc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Changing the Medicare Program According to the Principles of Managed Competition

This project will examine underlying assumptions of the managed competition model as applied to the Medicare program. The model requires managing the problem of biased risk selection and creating price-elastic demand by not exceeding the lowest-cost plan's premium for the sponsor's contribution, standardizing the coverage contract, providing quality-related information to individuals, and keeping the choice of plans at the individual level. The analysis will focus on choices available in rural areas, potential definitions of rural market areas, and choices made by rural beneficiaries. This project provides a means to assess current competitive activities, define rural market areas, and understand what might influence rural beneficiaries' choices.

RUPRI Center for Rural Health Policy Analysis
Expected completion date: August 2003
Contact: Keith J. Mueller, Ph.D., 402/559-5260 or kmueller@unmc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Colorectal Cancer Care Variation in Vulnerable Elderly

This three-year study, funded by the National Cancer Institute, is conducting analyses aimed at improving colorectal cancer care for the elderly. The study uses the linked SEER-Medicare claims database to examine differences in receipt, diffusion, and cost of recommended colorectal cancer treatments between more and less vulnerable elderly populations, and evaluates different measures of comorbidity and costs. The multidisciplinary research team consists of members of the Department of Family Medicine, Group Health, the Department of Gastroenterology, the Department of Surgery, and the Department of Radiology. A supplemental study funded by the National Cancer Institute is comparing quality of surgical care for colorectal cancer and the extent of surgical complications across different Medicare populations.

WWAMI Rural Health Research Center
Expected completion date: January 2003
Contact: Laura-Mae Baldwin, M.D., M.P.H., 206/685-0401 or lmb@fammed.washington.edu
Funder: The National Cancer Institute

Do We Need a Rural Payment Differential Under the Medicare Ambulance Fee Schedule?

In April 2002, Medicare began paying for ambulance transports on the basis of a prospectively-determined national fee schedule. Before this fee schedule was implemented, there was considerable variation in the way in which ambulance services were paid under Medicare. Because the national fee schedule is leveling out these differences, there has been on-going concern about whether certain types of ambulance providers would more likely be adversely affected by the fee schedule. In particular, some have suggested that small rural ambulance providers might be more likely to experience reductions in their Medicare revenue under the new fee schedule than their urban counterparts.

The purpose of this project is to use national data sources to further explore the need for a payment differential for certain types of rural providers, and, if a payment differential appears to be warranted, to examine which criteria might be useful for targeting increased Medicare payments to rural ambulance providers. We examine how the costs of services for rural and urban providers compared with Medicare payment and which types of rural providers will be winners or losers under the new fee schedule.

Data from the National Survey of Ambulance Providers are linked to Medicare claims or Medicare cost report data for the same year of the survey, depending on whether the provider was an independent or hospital-based provider in that year. Other secondary data files, such as the Bureau of Health Professions' Area Resource File (ARF), will also be merged with the analytic file to enable us to determine the demographic characteristics of the counties of location for each of the EMS providers.

Project Hope Walsh Center for Rural Health Analysis
Expected completion date: August 2003
Contact: Penny Mohr, M.A., 301/656-7401 or pmohr@projecthope.org
Funder: Federal Office of Rural Health Policy, HRSA

End-of-Life Care for Rural Medicare Beneficiaries

There is increasing interest on the part of policymakers in end-of-life care with specific concern about the reasons for low rates of hospice use. This project will examine patterns of end-of-life care for rural Medicare beneficiaries through analysis of administrative databases and the completion of case studies. The data analysis will focus on rates of hospice use as well as rates of in-hospital death and will examine whether demographic and geographic patterns in hospice use differ for rural and urban populations, and whether patterns are stable across the period 1996-1999. The analysis will also assess the impact of local resources (e.g., home health agencies, hospitals) on rates of hospice use.

To complement the above analysis, we will complete case studies of different types of hospice models serving rural communities (i.e., hospital-based, free-standing rural-based, free-standing urban-based, public health agency-based). The case studies will provide an in-depth perspective of hospices' challenges serving rural areas and best practices that can serve as models for other rural communities.

University of Minnesota Rural Health Research Center
Expected completion date: February 2003
Contact: Michelle Casey, M.S., 612/627-4251 or mcasey@tc.umn.edu
Funder: The Robert Wood Johnson Foundation

Is Medicare Beneficiary Access to Primary Care Physicians At Risk?

This project will examine the impact of changes in Medicare payment to physicians on access to care for rural beneficiaries. If rural practices are threatened by the cumulative effects of reduced payment and increased expenditures, physicians may be forced to abandon the community to merge into larger urban-based practices, perhaps in other states. Access to primary care services would decline, and a vital contribution to the local social capital and economic development would be lost.

This project will research the following hypotheses:

- Rural primary care physicians are more likely to declare policies not to see new Medicare patients than are urban primary care physicians or specialists (urban or rural).
- Rural primary care physicians are less likely to declare policies not to see new Medicare patients than are urban primary care physicians, due to the factor of "everybody knows everybody."
- Declines in seeing new Medicare patients will vary by region of the country, related to the percent elderly in the region, payment from other sources, and practice costs.
- The primary reason physicians cease to accept new Medicare patients is the rate of payment; secondary reasons include complexity of the Medicare program, intensity of treatment needed for elderly patients, and personal preference.

Three completed surveys will be used to address these issues, and multiple regression analysis will be the principal methodology used to analyze those data. In addition, a telephone survey will be conducted with a sample of state medical associations and state chapters of the American Academy of Family Medicine. Based on the telephone survey, three site visits will be made for the purpose of gaining a more in-depth understanding of the economic and other effects of treating a significant percentage of elderly patients on rural primary care practices.

RUPRI Center for Rural Health Policy Analysis
Expected Completion Date: August, 2003
Contact: Keith J. Mueller, Ph.D. 402/559-4318 or kmueller@unmc.edu
Funder: Office of Rural Health Policy, HRSA

Out-of-Pocket Spending by Rural Medicare Beneficiaries

This project will explore potential disparities in the way rural and urban Medicare beneficiaries finance their health care, with particular emphasis on differences in the amount they pay out-of-pocket for the services they receive. We will document rural and urban differences in the proportion of health care spending covered by Medicare, supplemental insurance (public or private), and out-of-pocket expenses. In addition, we will examine changes in the proportion of expenditures covered by various payers for subgroups of beneficiaries who reside in areas with substantial HMO market penetration or limited HMO market penetration. The results of this study will be useful to policymakers concerned with the affordability of health care for rural populations and the ability of beneficiaries to limit their out-of-pocket outlays for health care through the purchase of supplemental insurance or participation in TEFRA-risk HMOs.

University of Minnesota Rural Health Research Center
Expected completion date: February 2003
Contact: Kathleen Call, Ph.D., 612/624-3922 or callx001@tc.umn.edu
Funder: The Robert Wood Johnson Foundation

Networks and Managed Care

Analysis of Information Networking Technology in Sustaining Rural Delivery Systems

This project will provide a starting point for understanding the current and potential role of information networking technology in the governance, management and member service aims of rural health networks. Through document review and semi-structured telephone interviews of key informants within rural health networks, the project will address research questions which cover the following: the use and importance of information networking technology; drivers and barriers to developing information network systems; the role of information networking technology in the operation of a network as an organization; and the provision of information networking services in support of administrative, clinical and educational functions of the network.

RUPRI Center for Rural Health Policy Analysis
Expected completion date: March 2003
Contact: J. Patrick Hart, Ph.D., 701/343-2732 or jpathart@aol.com
Funder: Federal Office of Rural Health Policy, HRSA

Evolution of Rural Health Networks

Provider and policymaker interest in rural health network development is increasing with substantial support from federal and state governments and private foundations. This project is a follow-up to a previous national study of rural health networks completed in 1996. We will track the development of networks identified in 1996 and networks created since that time and assess the key factors that affect network survival. New issues added in a phone survey of network directors include Medicare risk contracting arrangements, reporting of network performance to members, analysis of specific network programs, and information and management systems development.

University of Minnesota Rural Health Research Center
Expected completion date: March 2003
Contact: Ira Moscovice, Ph.D., 612/624-8618 or mosco001@tc.umn.edu
Funder: The Robert Wood Johnson Foundation

Public Health and Health Promotion

Chronic Disease Management in Rural Areas

Rural populations show higher incidence of disease in a number of areas including heart disease, respiratory disease, disability associated with chronic health conditions, and obesity. Disease management (DM) is an appropriate tool to coordinate care and improve health outcomes for such populations and to reduce needs for more costly care. DM, however, has been most widely utilized in urban settings where it is promoted by large health plans interested in efficiently reaching large numbers of enrollees to reduce costs of care while improving outcomes. The goal of this project is to advance knowledge of the use of DM to address chronic conditions among rural populations. Of particular interest is information from participating health plans and providers about special challenges and effective strategies in DM initiatives targeting rural populations. Based on analysis of this information, the project team will identify issues of public policy and service management that can advance effective DM for rural populations.

Southwest Rural Health Research Center
Expected completion date: Spring 2003
Contact: Miguel A. Zuniga, M.D., Dr.P.H., 979/862-4142 or mzuniga@srph.tamu.shsu.edu
Funder: Federal Office of Rural Health Policy, HRSA

Evaluation of the RWJ/HRSA Demonstration Project: Creating an Integrated Health Outreach System to Isolated *Colonia* Residents in Hidalgo County, Texas

The Robert Wood Johnson Foundation (RWJF), in a joint effort with the Health Resources Services Administration (HRSA), has previously funded a major demonstration project in the Rio-Grande Valley targeting *promotoras*, lay health workers, in *Colonias* in Hidalgo County, Texas. The major goals of the demonstration project include improving the capacity of the lay health workers to impact the health behaviors of the residents, and integrating their activities with the actions of the health providers in the area to change access and utilization rates. This project will provide a rigorous evaluation of intervention activities in order to determine the impact of the RWJF/HRSA demonstration project. A series of pre- and post-demonstration household surveys and analysis of administrative data from health services facilities in the *Colonias* areas will be used to assess project impact. In particular, the evaluation will monitor communication patterns between *promotoras* and residents as well as *promotoras* and providers at various levels in the health delivery systems used by residents. Attention will also be directed to the impact of this intervention on the political and functional interactions of the relevant health providers. Finally, the project team will look toward the potential of this model to impact disaffected populations across the U.S./Mexico border region.

Southwest Rural Health Research Center
Expected completion date: 2005
Contact: Craig Blakely, Ph.D., 979/862-2419 or blakely@srph.tamushsc.edu
Funder: The Robert Wood Johnson Foundation

Rural Healthy People 2010: A Companion Document for Rural Areas

The purpose of the project is to create a companion document to *Healthy People 2010*, with the focus on addressing rural health priorities. This project identified and examined approximately one dozen high priority objectives for rural health as a subset of the hundreds of objectives defined within *Healthy People 2010*. Results of surveys of national, state, and local rural agencies and provider organizations, along with other criteria, were used in the identification of rural health priorities. Surveys and other contacts helped to identify state and community initiatives targeting rural areas that are considered models for practice for the selected priority objectives. Research and practice literatures associated with each of the selected objectives were investigated by the project research teams and summarized along with associated models for practice.

Southwest Rural Health Research Center
Expected completion date: Spring 2003
Contact: Larry Gamm, Ph.D., 979/458-2244 or gamm@srph.tamushsc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Rural Healthy People 2010: Expansion Project

The Rural Healthy People 2010 project identified and prioritized the key rural health issues and summarized promising models for practice in those priority areas. The purpose of this expansion project is to build on the findings of Rural Healthy People 2010 by concentrating on the 13th and 14th highest ranking rural priority areas (Immunization and Infectious Diseases; Injury and Violence Prevention) and their associated models for practice. At the same time, additional models for practice for the focus areas and objectives covered in the prior year will be added to the RHP2010 website. (*http://srphmain.tamu.edu/rhp2010*)

Southwest Rural Health Research Center
Expected completion date: August 2003
Contact: Larry Gamm, Ph.D., 979/458-2244 or gamm@srph.tamushsc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Quality

Determinants of Quality of Care in Rural Communities: How Does The Health Care Infrastructure Affect Quality of Care in Rural America?

The objective of this study is to determine the extent to which health manpower shortages and limited availability of health care resources may affect the quality of care in rural communities. We are developing a multivariate model that will allow us to measure the relationship between access to health care resources and quality of care after controlling for differences in health status and level of out-migration for health care services. Parameter estimates will be used to assess the factors that are most associated with quality of health care services and the magnitude of the effect.

For the purpose of this study, quality will be measured at the population level using AHRQ prevention quality indicators. These indicators use inpatient claims data to measure hospitalizations in a community for conditions that should be treatable on an outpatient basis or that could be less severe if treated early and appropriately. Using data from the Healthcare Cost and Utilization Project (HCUP) State Inpatient Databases, we profile rural counties' performance on each of the 16 indicators that comprise the AHRQ quality indicator set. We characterize the health care infrastructure in each rural community on a number of measures that may include physician-to-population ratio, distance to nearest acute care hospital, nursing beds-to-population ratio, and the availability of selected services (e.g., emergency department, obstetrical services). Data on the health care infrastructure is obtained from the Area Resource File and the Medicare Provider of Services Files.

This study will also provide information on how changes in policies affecting the rural health care infrastructure could further impact rural quality of care. Examples of the types of issues that this study could assist in addressing include USDA ending its participation in the J-1 Visa waiver program and the Rural Health Care Improvement Act.

Project Hope Walsh Center for Rural Health Analysis
Expected completion date: August 2003
Contact: Janet P. Sutton, Ph.D., 301/656-7401 or jsutton@projecthope.org
Funder: Federal Office of Rural Health Policy, HRSA

Developing Relevant Quality Indicators for Rural Hospitals

Two recent Institute of Medicine reports have outlined the importance of quality of care and patient safety issues and proposed a restructuring of the health care system to meet the quality challenge. Quality measurement is an important first step in assessing the quality of health care. However, the development of reliable quality indicators is a difficult task and may be resource intensive. The purpose of this project is to develop relevant quality indicators for rural hospitals. The project will evaluate existing quality indicator and performance measurement systems to assess their relevance for rural hospitals. In addition, an expert panel will be convened to make recommendations for quality indicators that are relevant for rural hospitals.

University of Minnesota Rural Health Research Center
Expected completion date: August 2003
Contact: Ira Moscovice, Ph.D., 612/624-8618 or mosco001@umn.edu
Funder: Federal Office of Rural Health Policy, HRSA

Establishing Evidenced-based Safety Standards for Rural Hospitals – Phase 1

The purpose of this project is to develop and test evidence-based safety improvement interventions in rural hospitals. The project has two phases. The objective of Phase One is to identify key patient safety areas and interventions of particular relevance to rural hospitals that have the potential to reduce medical errors and improve patient safety.

Phase One activities will include:

- a review of the relevant published literature on quality of care and medical errors in rural hospitals,
- an analysis of a national sample of hospital discharges from the Healthcare Cost and Utilization Project (HCUP),
- a survey of purchaser groups to identify their current initiatives related to patient safety in rural hospitals,
- the establishment and convening of two expert advisory panel meetings, and
- a telephone survey of a stratified sample of rural hospitals to assess the relevance and feasibility of the interventions identified by the advisory panel.

Phase Two objectives include implementation and evaluation of the interventions. This project will be conducted by a collaborative research team that includes senior researchers from the University of North Dakota, the University of Minnesota, and the University of Southern Maine.

University of Minnesota Rural Health Research Center
Expected completion date: December 2003
Contact: Ira Moscovice, Ph.D., 612/624-8618 or mosco001@umn.edu or *Mary Wakefield, Ph.D., RN, 701/777-3848 or mwake@medicine.nodak.edu* or *Andy Coburn, Ph.D., 207/780-4435 or andyc@usm.maine.edu*
Funder: Federal Office of Rural Health Policy, HRSA and *Agency for Healthcare Research and Quality*

Preventing Errors in Rural Hospitals

The purpose of this project is to assess the implications of the recent Institute of Medicine (IOM) report, "To Err is Human: Building a Safer Health System," for rural hospitals to help identify ways in which they can monitor and implement systems to prevent medical errors. Project staff will review the IOM report and the Federal Quality Interagency Coordination Task Force (QuIC) report to identify issues of particular concern for rural hospitals. These issues will then be discussed via phone interviews with the key staff for the IOM report and QuIC report and representatives from health care purchasers, providers, and regulators across the country knowledgeable about hospital quality of care and medical error issues. Potential issues to be addressed in the working paper include mandatory versus voluntary reporting system, measuring the "true rate" of adverse events, strategies for developing safe practices, and access/safety tradeoffs.

University of Minnesota Rural Health Research Center
Expected completion date: February 2003
Contact: Ira Moscovice, Ph.D., 612/624-8618 or mosco001@tc.umn.edu
Funder: Federal Office of Rural Health Policy, HRSA

Rural Quality Improvement Focus on Diabetes

This project will examine the policy implications of current approaches, characteristics, and effectiveness of rural diabetes care management and quality improvement programs. Diabetes is a well-understood disease for which there has been a reasonably large amount of program development in rural areas involving care management, self-management and prevention, or combinations of these elements. Diabetes programs represent, therefore, a sound starting point for understanding the rural context, process, structure, barriers, and operational and performance results of chronic disease management and quality improvement programming in rural areas. This project will focus specifically on diabetes care management and quality improvement programming in rural areas as a starting point for understanding the adaptability and policy implications of using chronic care coordination and other models in a rural environment.

This project will research the following hypotheses:

- Early adoption and success are more likely when there is: active leadership, existing collaborative relationships such as alliances and networks, strong links to community-based resources needed for care management, active participation of the Quality Improvement Organization, and support from state professional associations.
- The greater the distance that diabetes care programs are from urban counties the less likely the use of certified diabetes education and the less likely the program to be sustained.

RUPRI Center for Rural Health Policy Analysis
Expected Completion Date: August 2003
Contact: J. Patrick Hart, Ph.D. 402/559-8964; jpathart@unmc.edu
Funder: Office of Rural Health Policy, HRSA

Racial and Ethnic Populations

Adequacy of Ambulatory Care Among Rural African Americans with Congestive Heart Failure, Diabetes or Asthma

Hospitalization for ambulatory care sensitive conditions (ACSCs) is higher in rural areas and, within rural areas, among nonwhites and low income persons. This project will examine treatment for ACSCs between rural African American and white residents in South Carolina who are insured by Medicare, Medicaid or the State Employee Health Plan (SHP). Drawing on outpatient and inpatient records available from these three insurers, we will calculate hospitalization rates based on all persons with the diagnosis of interest, as defined by either outpatient care or hospitalization. The level of ambulatory care will be measured by visit rates and prescription filling. Factors affecting access to ambulatory care will include the number of physicians and pharmacies in the patient's area of residence as well as the patient's demographics, co-morbidities and insurance status. Hospitalization will be explored in the context of three alternative precursor situations--apparently sufficient ambulatory care, possibly insufficient ambulatory care, and no ambulatory care. This design will allow us to delineate the relative contributions to ACSC hospitalizations of patient characteristics, such as race, residence and co-morbidity, versus system characteristics, such as physician availability and accessibility.

South Carolina Rural Health Research Center
Expected completion date: April 2003
Contact: Janice C. Probst, Ph.D., 803/777-7426 or jprobst@sph.sc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Availability of Specialty Health Care for Rural American Indians and Alaska Natives

An issue of concern that has been identified by providers in the WWAMI region is the availability of specialty services to American Indian and Alaskan Native (AI/AN) populations. This study has three primary aims:

- To assess the level of access to medical and surgical specialty services for AI/ANs in Montana and New Mexico;
- To identify a network of sites caring for AI/ANs throughout the WWAMI region that can serve as a base for research in AI/AN health issues; and
- To identify a research agenda in rural AI/AN health in our region, consulting with our network of practice sites.

The primary source of information regarding access to specialty services was a mail survey with telephone follow-up of primary care providers in Montana and New Mexico who work in Indian Health Services and tribal health facilities, regarding their patients' access to specialty care, and strategies they have used to improve access to specialty services. We also surveyed a random sample of other primary care providers from the same communities to identify whether specialty access difficulties are specific to AI/AN populations, or reflect the overall community.

WWAMI Rural Health Research Center
Expected completion date: January 2003
Contact: Laura-Mae Baldwin, M.D., M.P.H., 206/685-0401 or lmb@fammed.washington.edu
Funder: Federal Office of Rural Health Policy, HRSA

Dental Care For Rural Low Income And Minority Populations

The Surgeon General (2000) concluded that a "silent epidemic" of dental diseases is affecting poor children, poor older Americans, and racial and ethnic minorities. The Healthy People 2010 oral health objectives include increasing the proportion of children and adults who use the oral health care system each year, and increasing the proportion of low-income children and adolescents who received any preventive dental service during the past year. The purpose of this project is to describe the characteristics of rural populations that have the greatest problems with access to dental care (using national data sets such as BRFSS and MEPS) and to identify strategies for improving access to dental care in rural areas.

University of Minnesota Rural Health Research Center
Expected completion date: September 2003
Contact: Michelle Casey, M.S., 612/627-4251 or mcasey@umn.edu
Funder: Federal Office of Rural Health Policy, HRSA

Health Care System Response to a Growing Latino Population in Rural America

The purpose of this study is to provide an in-depth assessment of the response of local rural health care systems to the unique needs of a growing Latino population in four rural Midwest communities. This project will use a qualitative case study approach to document successful programs, communication strategies, outreach efforts, and other strategies that have been used to increase access to care and improve service delivery to a growing Latino population in the rural Midwest. This project will assess health care access and public health issues for rural Latinos in a select group of rural communities, document successful local and state-wide strategies to meeting these needs, and use this initial qualitative work to develop recommendations for next-phase research to systematically identify and evaluate best practices to meet the health care needs of Latinos in rural areas.

The final report will document successful strategies that could be adopted by other communities facing similar challenges posed by changing demographics in the rural Midwest.

University of Minnesota Rural Health Research Center
Expected completion date: February 2003
Contact: Michelle Casey, M.S., 612/627-4251 or mcasey@umn.edu or *Lynn Blewett, Ph.D. 612/626-4739 or blewe001@umn.edu*
Funder: Federal Office of Rural Health Policy, HRSA

Rural Minority Health Data Warehouse

The purpose of this project is to identify and catalog research studies, reports, journal articles, and rural minority population data. This catalog will provide a comprehensive and connected knowledge base for community-based organizations, policymakers, researchers, program planners, and other interested parties. The project will generate a central point (clearinghouse/information warehouse) for the collection, classification, and distribution of information on rural minority health.

South Carolina Rural Health Research Center
Expected completion date: April 2003
Contact: Saundra H. Glover, Ph.D., 803/251-6317 or sglover@gwm.sc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Unhealthy Lifestyle Behaviors Among Minority Group Members: A National Rural and Urban Study

Most major chronic diseases share common risk factors, including modifiable lifestyle behaviors. Because rural minority group members suffer from a disproportionately high rate of morbidity and mortality from chronic conditions, a comprehensive assessment of lifestyle behaviors may inform interventions to improve health. The Behavioral Risk Factor Surveillance System (BRFSS) collects data annually from all 50 states on health-related behaviors. This study is using BRFSS data to explore the prevalence and trends of six unhealthy lifestyle behaviors: current smoking, excessive drinking, driving after drinking too much, eating fewer than five fruits and vegetables daily, engaging in 30 minutes of physical activity fewer than five times per week, and having an unhealthy weight. This study will provide needed information about the prevalence of unhealthy behaviors among minority group members in rural America and will help federal policymakers tailor health promotion programs to the risk groups and the geographic areas of greatest need.

WWAMI Rural Health Research Center
Expected completion date: August 2003
Contact: Mark Doescher, M.D., 206-685-0402 or mdoescher@u.washington.edu
Funder: Federal Office of Rural Health Policy, HRSA

Research-Policy Interface

Analytic Capacity to Respond to Changes in Medicare Payment Rates, Data Assistance to Policy Staff at the Federal Office of Rural Health Policy, and Production of Short Policy Briefs

Medicare payment rates to a variety of providers are constantly evolving, both through new legislation proposed in the Congress and regulatory changes proposed by the Centers for Medicare and Medicaid Services (CMS). This project revolves around educating congressional staff and other key individuals about the mechanics of Medicare payment policy, and evaluating the effect of such policy on rural providers. To have the ability to respond rapidly to policy changes in Medicare reimbursement methodology, key data sets will be maintained and ongoing longitudinal files constructed that allow tracking providers over time. Topics of analysis will be chosen as the result of direct requests from the Federal Office of Rural Health Policy staff and short policy briefs will be produced as needed.

North Carolina Rural Health Research and Policy Analysis Center
Expected completion date: August 2003
Contact: Rebecca Slifkin, Ph.D. 919-966-5541 or becky_slifkin@unc.edu
or Kathleen Dalton, Ph.D., 919/966-7957 or kathleen_dalton@unc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Database for Rural Health Research in Progress

The Maine Rural Health Research Center at the University of Southern Maine receives funding from the federal Office of Rural Health Policy (ORHP) to maintain a searchable database of current rural health services research and policy analysis. This database includes all ORHP-funded studies, as well as research funded by other federal agencies, major private foundations and other sources. Research dealing with the financing, organization, and/or delivery of health, mental health, and/or substance abuse treatment services in rural areas or to people residing in rural areas is within the scope of this database. We further define rural health services research to include studies of the prevalence of health, mental health or substance abusing conditions among rural population groups. Studies of the effects of changes in the rural health care system on the rural economy, rural/urban comparison studies, and studies of the experiences of rural residents in receiving health, mental health or substance abuse treatment services are also included in this definition. The Web site address for the database is http://www.rural-health.org. In addition, an annual publication of rural health research in progress in the ORHP-funded centers is produced and disseminated to policymakers.

Maine Rural Health Research Center
Expected completion date: ongoing
Contact: Karen B. Pearson, MLIS, M.A. 207/780-4553 or karenp@usm.maine.edu
Funder: Federal Office of Rural Health Policy, HRSA

Information Technology Engineering Support for Health Resources and Services Administration Data Systems/Geospatial Data Warehouse, GIS Technologies, GEMS Support and General Office of Information Technology Systems Support

This project will develop or update a comprehensive national data set that describes the supply and distribution of primary care professionals in the United States and related need factors for use by Health Resources and Services Administration and others in the determination of shortage areas and the analysis of supply distribution.

North Carolina Rural Health Research and Policy Analysis Center
Expected completion date: October 2003
Tom Ricketts, Ph.D., 919/966-5541 or tom_ricketts@unc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Service Delivery

Access to Cancer Services for Rural Colorectal Cancer Medicare Patients: A Multi-State Study

Colorectal cancer (CRC) is the second most common cause of cancer death in the U.S. and disproportionately impacts racial and ethnic minorities. Cancer care requires a sophisticated set of surgical and medical resources more common in large urban settings. Greater proportions of rural cancer patients are diagnosed at later stages than urban patients and are less likely than urban patients to receive state-of-the-art cancer treatments. This study is examining a comprehensive database that links Surveillance Epidemiology and End Results (SEER) cancer registry, Medicare claims, AMA Masterfile, and American Hospital Association data to quantify the distance and access to four types of cancer services in a sample of rural, Medicare-insured, CRC patients of different racial and ethnic groups. This study will inform future work designed to understand discrepancies in cancer service use by the rural elderly in different racial and ethnic groups.

WWAMI Rural Health Research Center
Expected completion date: August 2003
Contact: Laura-Mae Baldwin, M.D., M.P.H., 206-685-0402 or lmb@fammed.washington.edu
Funder: Federal Office of Rural Health Policy, HRSA

Access to Services Across a Continuum of Care for Rural Beneficiaries

National health policy and the research literature focus on separate programs to address distinct diseases and types of care and targeting of special payments to different rural health care providers and facilities. The growing interest in quality of care and outcomes could shift national policy efforts toward greater attention to quality of life instead of physical placement and categorical payment of services. The purpose of this set of research activities is to extend the policy agenda beyond addressing separate components of the delivery and financing system toward enabling a comprehensive array of services essential to the health and well being of rural residents. The analysis will include a comprehensive review of scholarly and trade literature, special reports and experienced, expert judgment directed at:

- Developing a definition of the continuum of care in medical/health system terms and applying it to rural communities;
- Broadening the continuum to include community-based, social services; and
- Developing a model that defines the elements of the continuum that can and should be delivered locally, are only available in population centers and urban areas, and that might be extended into rural areas via telemedicine, mobile or rotating clinics or other means.

RUPRI Center for Rural Health Policy Analysis
Expected completion date: March 2003
Contact: Keith J. Mueller, Ph.D., 402/559-5260 or kmueller@unmc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Are Rural Perinatal Care Systems Deregionalizing?

The regionalization of rural perinatal care during the 1980's significantly lowered neonatal mortality among infants born to rural residents, yet recent trends could disrupt the efficiency of regionalized systems of care. This study is determining whether there is evidence of deregionalization of rural perinatal care for high-risk women and infants and whether deregionalization has adversely affected neonatal mortality among infants born to rural residents. The main source of data is the NCHS National Linked Birth Death Data Set (LBDDS) data for the years 1985-87 and 1995-97. The study population includes all low birthweight infants born to rural residents of the United States. In a regionalized system of perinatal care, a high proportion of low birth weight infants will be delivered in tertiary settings. We are examining trends in the concentration of deliveries of high-risk infants born to rural residents in urban counties to assess whether perinatal care systems deregionalized.

WWAMI Rural Health Research Center
Expected completion date: March 2003
Contact: Eric Larson, Ph.D., 206/685-0401 or eric_larson@fammed.washington.edu
Funder: Federal Office of Rural Health Policy, HRSA

Delivery of Health Care to People with Multiple Sclerosis Living in Rural Areas

The objective of this project is to create and analyze profiles of people living with multiple sclerosis (MS), especially in rural areas of the U.S. The project is surveying 1500 people with MS who live in rural areas, rural areas contiguous to urban settings, and urban areas. These profiles will describe a range of residential, demographic, and family-related characteristics of the persons with MS. However, the primary focus of the survey will be on utilization, satisfaction with quality and access, and barriers to health care and specialty care for people with MS in rural areas.

Southwest Rural Health Research Center
Expected completion date: June 2003
Contact: Robert Buchanan, Ph.D., 979/458-2242 or Buchanan@srph.tamushsc.edu
Funder: National Multiple Sclerosis Society

The Federal Rural Health Outreach Grant Program: The Impact and Sustainability of Grantees

The purpose of this study is to assess the impact and sustainability of rural health consortia that received grant support under the Federal Rural Health Outreach Grant Program (RHOGP) in FY97 and FY94. For the purpose of this study, rural health consortia are defined as those organizational arrangements composed of three or more separately owned health and health-related service organizations supported under the RHOGP. Specific attention will be given to the identification of organizational best practices that have allowed grantees to continue in their collaborative efforts to meet the needs of rural communities.

University of Minnesota Rural Health Research Center
Expected completion date: April 2003
Contact: Ira Moscovice, Ph.D., 612/624-8618 or mosco001@umn.edu
Funder: Federal Office of Rural Health Policy, HRSA

Use and Effect on Patients of Disease Management in Rural Areas

Although rural populations are at high risk for chronic disease, Disease Management (DM) programs currently tend to target the insured and are found in larger population concentrations served by managed care plans. In addition, DM programs that serve rural populations may encounter a variety of factors that inhibit full participation of rural patients in DM programs or result in differential treatment. Building on findings from the Chronic Disease Management Project, this project focuses on whether there are observable differences in the impact of disease management (DM) programs between rural and urban populations. Specifically, the study will compare rural and urban patients on several dimensions of utilization of DM programs conducted by two or three rural-urban integrated delivery systems.

Southwest Rural Health Research Center
Expected completion date: August 2003
Contact: Jane Bolin, Ph.D., JD, RN, 979/862-4238, or jbolin@srph.tamushsc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Special Needs of Women and Children

Changes in U.S. Rural Perinatal Care During the Last Decade

Little is known about long-term national trends in birth outcomes and use of prenatal care in the rural population of the U.S. or about intra-rural differences in adverse outcome and inadequate prenatal care. This interdecade analysis of a single, population-based data set will provide policymakers with a clear picture of regional and sub-population level intra ces that should prove useful in better targeting resources to improve outcomes for this most vulnerable group of rural citizens. In this study, we are examining two central questions:

- How and where have rates of adverse birth outcome and prenatal care among U.S. rural residents changed in the years between 1985-87 and 1995-97?
- How have adverse birth outcomes and prenatal care changed during these periods among rural residents from racial and ethnic minority groups?

We have been examining the extent to which the answers to these questions vary regionally and by different types of rural areas. Most of the data for this study comes from the Linked Birth Death Data Set (LBDDS), a national compilation of birth certificate data from all 50 states and the District of Columbia. Using LBDDS data for 1985-87 and 1995-97, we are assessing inter-decade changes in rural/urban and intra-rural differences in the rate of low birthweight outcome, neonatal death, post-neonatal mortality, and inadequate prenatal care. An important aim of the study is to examine changes among rural African Americans and American Indians, two racial groups that have experienced very high rates of adverse outcome and inadequate prenatal care. In addition, we are assessing the degree to which observed changes are concentrated in particular types of rural settings or regions.

WWAMI Rural Health Research Center
Expected completion date: April 2003
Contact: Eric H Larson, Ph.D., 206/685-0401 or eric_larson@fammed.washington.edu
Funder: Federal Office of Rural Health Policy, HRSA

Ingestion of Pesticides by Children in Agricultural Areas

This project is examining the ingestion of pesticides by children who live in agricultural areas in which aerial spraying is used. It involves collection of data using several different measures of ingestion. Initial results have disclosed DDT in all of the homes sampled and about 20 percent of the homes have organophosphate insecticides.

Southwest Rural Health Research Center
Expected completion date: December 2003
Contact: Kirby C. Donnelly, Ph.D., 979/862-4622 or kdonnelly@cvm.tamu.edu
Funder: Environmental Protection Agency & Rutgers University

Insurance Status and Quality of Care for Children in Rural Areas: 1993-2000

Childhood immunizations are accepted as a marker for the quality of health care that children receive, and all states now have childhood immunization laws that affect children entering school. While childhood immunization rates are already high in most parts of the country, there are still children who are at risk for not receiving timely immunizations. Being non-white and having parents with lower income or lower educational status increases a child's risk of being under-immunized. Several interventions have been put in place to try and increase immunization rates. For example, the Vaccine for Children program, passed in 1993, provides free immunizations to all eligible children born in the United States. Federal programs that provide free vaccinations may have differential effects on the provision of immunizations in rural and urban areas. This study examines the impact of insurance coverage and having a medical home on receipt of childhood immunizations for rural and urban children during the years 1993 – 2000. In addition, it will examine the impact of poverty, race and Hispanic origin on rural and urban children's receipt of childhood immunizations. Analysis will be based on National Health Interview Survey (NHIS) information from the years 1993 – 2000.

South Carolina Rural Health Research Center
Expected completion date: August, 2003
Contact: Arch Mainous, PhD. 843/792-6986 or mainouag@musc.edu
Funder: Federal Office of Rural Health Policy, HRSA

National Trends in the Perinatal and Infant Health Care of Rural and Urban American Indians (AIs) and Alaska Natives (ANs)

While there have been dramatic improvements in AI/AN maternal and child health since these measures were first recorded in the mid-1950s, significant disparities persist between AI/AN and non-AI/AN populations in the U.S. The aims of this study are (1) to examine trends in prenatal care use, low birth weight rate, and the neonatal and post-neonatal mortality rates in rural and urban AI/AN populations nationally between 1985 and 1997, and compare these trends in the white and African American populations during the same time period; (2) to examine trends in causes of death for rural and urban AI/AN populations nationally between 1985 and 1997, and compare these trends to the non-AI/AN population during the same time period; and (3) to analyze trends in our study measures for AI/AN and non-AI/AN populations by Census region, division, and Indian Health Service (IHS) Service Areas. The study will use the National Linked Birth Death Data Set at three points in time: 1985-1987, 1989-1991, and 1995-1997, and compare rates of inadequate prenatal care, low birth weight, neonatal and post-neonatal death, and causes of death between rural and urban AI/ANs in each of the three time periods, as well as over time. Rates of these same outcome measures will be provided for white and African American populations during the same time periods for reference.

WWAMI Rural Health Research Center
Expected completion date: March 2003
Contact: Laura-Mae Baldwin, M.D., M.P.H., 206/685-0401 or lmb@fammed.washington.edu
Funder: Federal Office of Rural Health Policy, HRSA

Resource Mothers: Effect of a Home Visitation Program Using Indigenous Paraprofessionals on Maternal-Infant Preventive Services, Modifiable Risk Factors and Health Outcomes

The prototype Resource Mothers Program, conducted in three rural South Carolina counties from 1980 to 1984, was a highly structured home visitation program using indigenous paraprofessionals to provide health education and social support to pregnant teenagers during pregnancy and the infant's first year. To date, evaluation of home visitation programs using indigenous paraprofessionals has focused on program impact on adequacy of prenatal care and birth outcomes (birth weight, gestational age), with the exception of one study that also measured use of related preventive services and medical care cost savings. Our research will expand the work of previous investigators by adding evaluation of modifiable risk factors for poor birth outcomes and illness/injury among infants, adequacy of preventive services during the first year of life, and program cost effectiveness. This midcourse evaluation of a Resource Mothers Program in a rural Health Professional Shortage Area will allow the investigators to assess the correctness and completeness of data collection as well as the adequacy of procedures for merging and managing data obtained from state databases. Based upon the midcourse evaluation, procedures can be modified and refined to obtain more accurate data and manage it adequately to ensure a successful end-of-program evaluation.

South Carolina Rural Health Research Center
Expected completion date: April 2003
Contact: Elizabeth Erkel, Ph.D., 843/792-5461 or erkelea@musc.edu
Funder: Federal Office of Rural Health Policy, HRSA

State-Level Data

The North Carolina Rural Health Guide

This project will provide assistance in the production of an on-line rural health guide titled, "The North Carolina Rural Health Guide," to be utilized by North Carolinians. The product of this project is an online resource system, one that can be used by rural hospitals and communities who wish to better understand the health care needs and current capacity in their local communities and facilities. The online product will be updated annually with current data for the next three years.

North Carolina Rural Health Research and Policy Analysis Center
Expected completion date: May 2003
Contact: Melissa A. Fruhbeis, M.S.P.H., 919/966-9985 or melissa_fruhbeis@unc.edu
Funder: The North Carolina Hospital Association (NCHA)

State Rural Health Workforce Monograph

Little comparative data on the rural health workforce are available at the state level. The purpose of this project is to compile and present state rural health workforce information on selected types of health care providers and to compare these data across states and the nation. Parallel data are being presented for each state, allowing national policymakers to gain both a local and national perspective on workforce issues that need to be addressed to optimize the delivery of health care. In addition, the monograph will clearly delineate key workforce concepts and will summarize the most salient and pressing rural health workforce trends, variations, issues, and data limitations. The project team, including selected external experts, investigated the availability and utility of comparable state rural health workforce data and obtained the selected data. The team has performed analyses of these secondary data to obtain state rural estimates for the supply of providers, both head counts and per capita figures. Data on allopathic and osteopathic physicians from the American Medical Association and American Osteopathic Association have been employed to allow comparisons of physicians by selected specialty types across state rural areas. In addition, the Area Resource File has been used for selected provider types when more recent data were not available from the medical associations or other sources. Special attention is being paid to issues regarding geographic identifiers (e.g., Rural-Urban Commuting Areas, metro/nonmetro counties, and Urban Influence Codes).

WWAMI Rural Health Research Center
Expected completion date: February 2003
Contact: Gary Hart, Ph.D., 206/685-0401 or ghart@fammed.washington.edu
Funder: Federal Office of Rural Health Policy, HRSA

Workforce

Changes in the Supply, Distribution, Workload and Reimbursement Patterns of Pharmacists in Rural Areas

This study will examine the supply, distribution, workload, and reimbursement patterns of pharmacists in rural areas. Pharmacist licensure data from five geographically diverse states with high rural populations will be analyzed to determine demographic characteristics, employment patterns, and educational preparation of practicing pharmacists in rural vs. urban areas. The study will also examine pharmacy licensure data in rural vs. urban areas to study trends in pharmacy ownership patterns. The study will provide much needed information to state and national decision makers as they craft policies on pharmacist education, reimbursement, and regulation.

North Carolina Rural Health Research and Policy Analysis Center
Expected completion date: August 2003
Contact: Erin Fraher, M.P.P., 919-966-5012 or erin_fraher@unc.edu
Funder: Federal Office of Rural Health Policy, HRSA

The Community Health Worker Certification Process in Texas: Implications for Practice and Policy

There is a move in several states to formalize the training and qualifications of community health workers (CHWs), such as *promatoras/es*, through requirements for licensure, certification, or credentialing. For example, the Texas legislature has recently mandated the certification of CHWs. This policy trend raises several critical issues, with key stakeholders having interests that may be at odds. States clearly wish to assure quality health care while using CHWs to improve access in geographically isolated and other underserved areas. States also wish to contain costs. CHW organizations, however, are concerned about the impact of such policies on their organizational culture and program sustainability. Given this trend and the associated concerns, the two main project goals are to provide a national overview of state policy, including current legislative proposals, on licensure/certification of lay community health workers and to analyze the likely effect of these policy trends on the sustainability and effectiveness of CHW programs.

Southwest Rural Health Research Center
Expected completion date: August 2003
Contact: Marlynn L. May, Ph.D., 979/458-1328 or 862-2435 or mmay@unix.tamu.edu
Funder: Federal Office of Rural Health Policy, HRSA

Distribution and Retention of General Surgeons in Rural Areas of the U.S.

Access to surgical services in rural areas is limited compared to that in more urban areas. In addition, interest of graduating U.S. medical students in general surgery residencies appears to be declining. This worsening crisis in rural surgery is of particular concern given the critical roles that general surgeons play in providing a wide spectrum of clinical services in rural hospitals and trauma systems, as well as their close relationship with rural family practitioners, for whom they provide crucial backup. The aims of this study are to examine secular trends in the distribution of general surgeons in rural areas of the WWAMI (Washington, Wyoming, Alaska, Montana, and Idaho) region, selected southeastern states, and nationally between 1990 and 2002, and to examine the current (2002) distribution of general surgeons in rural areas of the nation.

WWAMI Rural Health Research Center
Expected completion date: August 2003
Contact: Matt Thompson, M.B., Ch.B., 206-685-0402 or mjt@u.washington.edu
Funder: Federal Office of Rural Health Policy, HRSA

Establishing a Fair Payment for Rural Physicians

This project will analyze differences in physician payment as a function of practice location, and simulate policy choices that change the current payment formula. Section 1848 (e) of the Social Security Act creates geographic indices, including "an index which reflects 1/4 of the difference between the relative value of physicians' work effort in each of the different fee schedule areas and the national average of such work effort." Two other Geographic Practice Cost Indices (GPCIs) are also used to calculate the Geographic Adjustment Factors (GAFs) -- practice cost including office rent and hourly wages of staff, and professional liability insurance (PLI) to reflect differences in premiums for malpractice insurance. Most physicians and those who employ them argue payment for physician work should not differ much by geography because the value of the work is not a function of area-specific costs, as distinguished from the costs of the practice and prices for liability insurance. The work index established by federal regulation uses the salaries for each of the 89 payment areas as reported in the 1990 census for six occupational categories. Of these six categories, one covers registered nurses and pharmacists.

This project will research the following hypotheses:

- Modest changes (e.g., a floor in the work index) in the calculation of GPCIs will yield significant increases in payment for rural physicians.

- Physician practices affected favorably by increasing the work index used in the GAFs will locate in rural areas that include a disproportionate share of shortage areas and serve a disproportionate percentage of elderly persons.

This project will include three discrete activities:

- an explanation of the physician payment formula with an easy-to-follow schematic;
- development of a database of payments in the 89 payment areas; and
- an analysis of the effects of payment change in specific physician practices.

RUPRI Center for Rural Health Policy Analysis
Expected Completion Date: August 2003
Contact: Keith J. Mueller, Ph.D. 402/559-4318; or kmueller@unmc.edu
Funder: Federal Office of Rural Health Policy, HRSA

Evaluation of Washington State Shortage Designations

Concerns have been raised about how well shortage area designations differentiate areas or entities with sufficient provider supply from those that are underserved. Eligibility for federal health personnel programs is triggered by designation of an area as a Health Professional Shortage Area (HPSA). However, these designations often do not overlap and may fail to accurately identify the most underserved areas. This study examines how well HPSAs and Medically Underserved Areas (MUAs) compare with results of the newly-developed Washington State generalist supply model that is based on small units called Generalist Health Service Areas and examines what factors account for any differences obtained when applying these designation models. The study also evaluates the newest federal designation criteria.

WWAMI Rural Health Research Center
Expected completion date: March 2003
Contact: Gary Hart, Ph.D., 206/685-0401 or ghart@fammed.washington.edu
Funder: Federal Office Rural Health Policy, HRSA

Evolving Practice of Rural Primary Care Physicians

This project will monitor the changing practice of medicine by rural primary care physicians. It is a follow-up effort to collect detailed information on a random sample of rural primary care physicians (approximately 1,000 family physicians, general practitioners, general internists) who are participating in a National Rural Physician Panel. Surveys of the National Rural Physician Panel participants will collect information on practice organization, ownership, and affiliations; scope of services offered and the use of technology; referral patterns and specialty outreach relationships; factors affecting MD retention; level and types of risk-bearing; use of care management tools including clinical protocols; and quality assessment and quality improvement strategies.

University of Minnesota Rural Health Research Center
Expected completion date: May 2003
Contact: Ira Moscovice, Ph.D., 612/624-8618 or mosco001@tc.umn.edu or
Astrid Knott, Ph.D., 612/624-3566 or knott008@tc.umn.edu
Funder: The Robert Wood Johnson Foundation

National Changes in Physician Supply

National rural health policy development depends on an accurate and up-to-date assessment of physician supply. This project describes the supply of generalist physicians and osteopaths in rural areas of the U.S. The study results will provide a current picture of rural physician supply and its variation by state and by region. We are using data from the American Medical Association Physician Masterfile and the Area Resource File to determine the total supply of practicing physicians in metropolitan and nonmetropolitan counties in 1998. We are also using Urban Influence Codes to classify nonmetropolitan counties based on their adjacency to a metropolitan county and on the size of the largest urban place within the county. We will also assess supply of physicians in the smallest and most isolated areas of the country and analyze rural physician supply on a state-by-state and regional basis.

WWAMI Rural Health Research Center
Expected completion date: January 2003
Contact: Eric Larson, Ph.D., 206/685-0401 or eric_larson@fammed.washington.edu
Funder: Federal Office of Rural Health Policy, HRSA

Pacific Island Continuing Clinical Education Program (PICCEP)

This study aims to facilitate continuing clinical education (CCE), with an emphasis on primary care for local health providers in the U.S.-affiliated Pacific jurisdictions (Guam, the Northern Marianas, Micronesia, Palau, the Marshall Islands and American Samoa). A major focus is CCE for graduates of the Pacific Basin Medical Officers Training Program. The study involves health care workforce analyses, needs evaluations, and identification of resources for CCE in the Pacific Basin region. PICCEP addresses CCE needs of health care providers in the region; utilizes educational interventions with a high likelihood of increasing providers' clinical skills; helps create a sustainable CCE program that incorporates existing regional resources, is feasible, and fosters an ongoing regional infrastructure among participating jurisdictions; and targets the needs of physicians and other health care providers in cooperation with ongoing local and outside CCE initiatives. Year 4 programs include Continuing Medical Education (CME) for physicians and other clinicians in the nine jurisdictions; evaluating the effectiveness of its programs; and preventive oral health education for medical and dental providers. To date, PICCEP has provided two rounds of CCE courses in these primarily rural Pacific jurisdictions, delivered continuing oral health education to medical and dental professionals, worked with the health professionals in the jurisdictions to select medical reference materials to distribute among the sites, and carried out needs assessments for continuing education in nursing, pharmacy, laboratory, and other health professions in the region.

WWAMI Rural Health Research Center
Expected completion date: September 2003
Contact: Ron Schneeweiss, M.D., 206/685-0402 or sron@u.washington.edu
Funder: Bureau of Health Professions and Bureau of Primary Health Care

Rural Dentistry: Availability, Practice, and Access

The population of the U.S. is experiencing a "silent epidemic" of dental disease that has disproportionately affected the oral health of poor, isolated and otherwise disadvantaged populations. Rural children in particular are victims of this epidemic. Against this background of rural disadvantage in dental disease prevalence is a shortage of dental providers in rural areas. This study uses secondary data sources such as the Area Resource File, American Dental Association data, and state-level professional licensure data to describe the supply of dental providers in several states, with particular attention to the supply of providers in rural areas. Results of a survey administered to rural dentists in California, Maine, Missouri, and Alabama, will be used to describe the rural dental provider population in those states. The survey addresses issues of demography, practice characteristics, practice satisfaction, use of dental hygienists, Medicaid and CHIP practices, and attitudes toward the use of alternative sources of dental care, such as using medical providers to apply sealants in the pediatric population. The study will elucidate, from the dental provider perspective, the barriers to access to dental care for rural residents and what can be done to promote rural dental practice.

WWAMI Rural Health Research Center
Expected completion date: April 2003
Contact: Eric Larson, Ph.D., 206/685-0401 or eric_larson@fammed.washington.edu
Funder: Federal Office of Rural Health Policy, HRSA

Stay or Leave: Evidence from a Cohort of Young Rural Physicians

The inability of rural areas to attract and retain physicians has been of concern to health services researchers and policymakers for many years. Workforce supply constraints may adversely affect access to care and outcomes in these areas. Much of the evidence on how physicians make practice location decisions is *static* – evidence analogous to a snapshot of behavior at a point in time – that tends to overestimate behavior of those who serve rural areas for longer periods of time. A better understanding of the dynamics of behavior is needed, e.g., studies of observed changes in practice locations over time by a cohort of providers. The purpose of this project is to improve our understanding of the dynamics of physician practice location decision-making. We track practice locations of a cohort of physicians using information on physicians who were identified during the early stages of their medical careers as part of the National Survey of Rural Physicians (NSRP), conducted in 1993-1994 with funding from the Robert Wood Johnson Foundation. We supplement these data with data obtained from the American Medical Association when the NSRP sampling frames were constructed, information on the current practice locations of physicians in the cohort, and data from a follow-up survey.

Project Hope Walsh Center for Rural Health Analysis
Expected completion date: August 2003
Contact: Curt D. Mueller, Ph.D., 301/656-7401 or cmueller@projecthope.org
Funder: Federal Office of Rural Health Policy, HRSA

Workforce Issues in Rural Community Health Centers: Joint South Carolina Rural Health Center Project and WWAMI Rural Health Research Center

More than half of the 600 Federally Qualified Community and Migrant Health Centers (CHCs) in operation today are rural. These centers serve as a health care safety net for many of the nation's rural underserved communities. President Bush's health care agenda for 2002 includes his support for adding 1,200 new community health centers over the next five years. Because of their location, rural centers continue to face major barriers in recruiting and retaining health professionals. The small potential rural health professions workforce combined with the President's initiative will make it more difficult to maintain staffing levels in current rural CHCs and perhaps compromise the development of new CHCs and expansion sites. However, there is no inventory or projection of key health professions staffing needs for CHCs and proposed new CHCs and expansion sites. The current study will determine the current staffing needs of rural CHCs, ascertain the staffing issues that CHC CEOs regard as most critical, distinguish how workforce issues differ between CHC CEOs contemplating development of expansion sites versus those who are not, and describe how the findings of the study correlate with current national supply projections for the categories of health professions needed by the CHCs.

WWAMI Rural Health Research Center
Roger A. Rosenblatt, MD, MPH
South Carolina Rural Health Research Center
Expected completion date: South Carolina - August 2003; WWAMI – March 2004
Contact Michael E. Samuels, Dr.P.H. or samuels@uky.edu
Funder: Federal Office of Rural Health Policy, HRSA

WWAMI Center for Health Workforce Studies

The WWAMI CHWS is one of five regional health workforce centers funded by the Bureau of Health Professions' National Center for Health Workforce Information and Analysis (NCHWIA). The Workforce Center's major goals are to conduct high-quality and policy relevant health workforce research in collaboration with the NCHWIA and state agencies from Washington, Wyoming, Alaska, Montana, and Idaho; to provide consultation to local, state, regional, and national policymakers and analysts; to develop appropriate state health workforce methods and determine the data necessary for their use; and to widely disseminate study results in easily understood and practical form to facilitate appropriate state and federal workforce policies. The Workforce Center brings together researchers from medicine, nursing, dentistry, public health, and the allied health professions to perform applied research on the distribution, supply, and requirements of health care providers, with emphasis on state workforce issues in underserved rural and urban areas of the WWAMI region. The Workforce Center emphasizes issues related to provider and patient diversity, provider clinical care and competence, and the cost and effectiveness of practice in the rapidly changing managed care environment. Projects currently underway are:

- **Washington State Health Workforce Data Demonstration Project.** The project PI is Gary Hart, Ph.D. Scheduled completion date is Summer 2003.

- **Workforce Investment Act of 1988: Are States Targeting the Health Workforce?** The project PI is Sue Skillman, M.S. Scheduled completion date is Fall 2003.

- **Education and Employment Characteristics of Registered Nurses in Rural Areas of the U.S.: Analysis of the 2000 Nurse Sample Survey.** The project PI is Sue Skillman, M.S. Scheduled completion date is Fall 2003.

- **Determination of Generalist and Other Physician Shortages Using a Refined Washington State Workforce Model.** The project PI is Gary Hart, Ph.D., 206/685-0401 or ghart@fammed.washington.edu. Scheduled completion date is Winter 2003.

- **Development and Application of a Mental Health Workforce Model for Washington State.** The project PI is Laura-Mae Baldwin, M.D., M.P.H., 206/685-0401 or lmb@u.washington.edu. Scheduled completion date is Winter 2003.

- **Effect of Increases in International Medical Graduates in Primary Care Residencies.** The project PI is Matt Thompson, M.B., Ch.B., M.P.H. Scheduled completion date for this multi-component project is September 2003.

- **The Emergence of the Physician Assistant Profession with an Emphasis on Rural Service**. The project PI is Eric Larson, Ph.D. Scheduled completion date is Spring 2003.

- **Identification of Factors that Promote the Recruitment/Acceptance of American Indians and Alaska Natives into the Health Professions.** The project PI is Laura-Mae Baldwin, M.D., M.P.H. Scheduled completion date is Winter 2003 for the first component of the project and Spring 2004 for the second component.

- **Obstetrics and Gynecology Specialty Services: Supply, Distribution and the Effect of Changing Provider Demography in Washington State.** The project PI is Laura-Mae Baldwin, M.D., M.P.H., 206/685-0401 or lmb@u.washington.edu. Scheduled completion date is Winter 2003.

- **State-Level Requirements Models of the General Dental Workforce in Montana.** The project PI is Gary Hart, Ph.D. Scheduled completion date is Winter 2003.

WWAMI Center for Health Workforce Studies
http://www.fammed.washington.edu/CHWS/
Contact: Gary Hart, Ph.D., 206/685-0401 or ghart@fammed.washington.edu
Funder: Bureau of Health Professions, HRSA

Part 2:
Center Descriptions and Publications

North Carolina Rural Health Research and Policy Analysis Center

Project HOPE Walsh Center for Rural Health Analysis

RUPRI Center for Rural Health Policy Analysis

South Carolina Rural Health Research Center

Southwest Rural Health Research Center

WWAMI Rural Health Research Center

Maine Rural Health Research Center

University of Minnesota Rural Health Research Center

North Carolina Rural Health Research and Policy Analysis Center

Director: Rebecca T. Slifkin, Ph.D.
Cecil G. Sheps Center for Health Services Research
University of North Carolina at Chapel Hill
725 Airport Road CB 7590, Chapel Hill, NC 27599-7590
• 919-966-5541 • Fax: 919-966-5764
• becky_slifkin@unc.edu
• www.shepscenter.unc.edu

The North Carolina Rural Health Research and Policy Analysis Center (NCRHRPAC) is one of three federally designated Rural Health Policy Analysis Centers funded by the Federal Office of Rural Health Policy. The Center is built on the 30-year history of rural health services research at the University of North Carolina's Cecil G. Sheps Center for Health Services Research, and is able, through that relationship, to draw on the experience of a wide variety of scholars, researchers, analysts, managers and health service providers associated with the Center. The Center also has an ongoing partnership with the Foundation for Alternative Health Programs of the Office of Rural Health and Resource Development in the North Carolina Department of Human Resources.

The NCRHRPAC seeks to address problems in the rural health arena through 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 material for policy or administrative purposes. The Center's research involves primary data collection, analysis of large secondary data sets, and in-depth policy analysis. The Center 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 Center's present agenda focuses on access to health care, Medicare reimbursement policy, and rural hospitals and health care delivery organizations. Current projects include the examination of access to healthcare for young rural Medicaid beneficiaries, the identification of changes in the supply, distribution, workload and reimbursement patterns of pharmacists in rural areas, and the effect of rural hospital closures on communities from 1990 – 2000.

Selected Publications

Working Papers

74. Dalton, K., Van Houtven, C., Slifkin, R., Poley, S., & Howard, A. (2002). *Background paper: Rural and urban differences in nursing home and skilled nursing supply*.
http://www.shepscenter.unc.edu/research_programs/Rural_Program/wp74.pdf

73. Randolph, R., Slifkin, R., Whitener, L., & Wulfsberg, A. (2002). *Impacts of multiple race reporting on rural health policy and data analysis.*
http://www.shepscenter.unc.edu/research_programs/Rural_Program/wp73.pdf

72. Pathman, D. E., Konrad, T. R., & Schwartz, R. (2001). *The proximity of rural African American and Hispanic/Latino communities to physicians and hospital services.*
http://www.shepscenter.unc.edu/research_programs/Rural_Program/wp72.pdf

71. Baer, L. D., Konrad, T. R. & Slifkin, R. T. (2001). *If fewer international medical graduates were allowed in the US, who might replace them in rural areas*?
http://www.shepscenter.unc.edu/research_programs/Rural_Program/wp71.pdf

70. Dalton, K., Slifkin, R. T. & Howard, H. A. (2000). *Rural hospital area wages and the PPS wage index: 1990 - 1997*.
http://www.shepscenter.unc.edu/research_programs/Rural_Program/wp70.pdf

68. Ricketts, T .C. (1999). *The Medicare Rural Hospital Flexibility Program: Rapid progress toward full implementation*.

67. Dalton, K., Slifkin, R. T. & Howard, H. (2000). *At-risk hospitals: The role of Critical Access Hospital status in mitigating the effects of new prospective payment systems under Medicare.*
http://www.shepscenter.unc.edu/research_programs/Rural_Program/wp67.pdf

66. Slifkin, R. T., Goldsmith, L. & Ricketts, T. C. (2000). *Race and place: Urban-rural differences in health for racial and ethnic minorities.* http://www.shepscenter.unc.edu/research_programs/Rural_Program/wp66.pdf

65. Slifkin R. T., Silberman, P. & Reif, S. (2000). *The effect of market reform on rural public health departments.*
http://www.shepscenter.unc.edu/research_programs/Rural_Program/wp65.pdf

Other Publications

2003

Rosenthal, T.C. (2003, Winter). Rural bioterrorism: Are we exempt? *Journal of Rural Health, 19*(1), 5-6.

2002

Coburn, A. F., Gale, J. A., Poley, S. T., Slifkin, R. T., & Walsh, J. F. (2002). State Medicaid payment policies for Critical Access Hospitals. In *Rural Hospital Flexibility Program Tracking Project: Year Three Report (covering fiscal year 2001-2002)* (Chapter 5). Washington, DC: Federal Office of Rural Health Policy.
http://www.rupri.org/rhfp-track/year3/Report.pdf

Dalton, K., Slifkin, R., & Howard, H. (2002). Rural hospital wages and the area wage index. *Health Care Financing Review*, *23*(4), 155-176.

Fruhbeis, M.A., & Dalton, K. (2002). A profile of Critical Access Hospitals. In *Rural Hospital Flexibility Program Tracking Project: Year Three Report (covering fiscal year 2001-2002)* (Chapter 2). Washington, DC: Federal Office of Rural Health Policy. http://www.rupri.org/rhfp-track/year3/Report.pdf

Pathman, D., Konrad, T., Schwartz, R. (2002). The proximity of predominantly African American and Hispanic rural communities to physicians and hospital services. *Journal of Rural Health, 18*(3), 416-427.

Poley, S.T., & Ricketts, T.C. (2002). *Fewer hospitals close in the 1990s: Rural hospitals mirror this trend*. http://www.shepscenter.unc.edu/research_programs/Rural_Program

Randolph, R., Gaul, K., & Slifkin, R. (2002). *Rural populations and health care providers: A map book*. Chapel Hill, NC: University of North Carolina at Chapel Hill, North Carolina Rural Health Research and Policy Analysis Center.

Ricketts, T.C. (2002). Rural health research and rural health in the 21st century: The future of rural health and the future of rural health services research. *The Journal of Rural Health*, *18*(S), 140-146.

Silberman, P., Poley, S., James, K., & Slifkin, R. (2002). Tracking Medicaid managed care in rural communities: A 50-state follow up. *Health Affairs*, *21*(4), 255-263.

Slifkin, R.T. (2002). Developing policies responsive to barriers to health care among rural residents: What do we need to know? *The Journal of Rural Health, 18*(S)*,* 233-241.

Zelman, W.N., & Stewart, S.R. (2002). Major strengths, problems and initiatives of CAHs: A balanced scorecard perspective and an exploration of positioning strategies. In *Rural Hospital Flexibility Program Tracking Project: Year Three Report (covering fiscal year 2001-2002)* (Chapter 3G). Washington, DC: Federal Office of Rural Health Policy. http://www.rupri.org/rhfp-track/year3/Report.pdf

2001

Dalton, K., Slifkin, R. T. & Howard, H.A. (2001). The role of Critical Access Hospital status in mitigating the effects of new prospective payment systems under Medicare. *Journal of Rural Health, 16*(4), 357-370.

Ricketts, T. C. (2001). Rural health care in the United States. In *Rural health care in Japan and the United States: Shared challenges and solutions. Conference summary and briefing papers* (pp. 35-57). Washington, DC: The Mansfield Center for Pacific Affairs. http://www.mcpa.org/PROGRAMS/ricketts.pdf

Ricketts, T. C., Randolph, R., Howard, H.A., Pathman, D. E. & Carey, T. (2001). Hospitalization rates as indicators of access to primary care. *Health and Place, 7*(1), 27-38.

Slifkin, R. T., Silberman, P., & Reif, S. (2001). The effect of Medicaid managed care on rural public health departments. *Journal of Rural Health, 17*(3), 187-196.

Project HOPE Walsh Center for Rural Health Analysis

Director: Curt D. Mueller, Ph.D.
Associate Director: Julie A. Schoenman, Ph.D.
Project HOPE
7500 Old Georgetown Road, Suite 600, Bethesda, Maryland 20814
• 301-656-7401 (x224) • Fax: 301-654-0629
• cmueller@projhope.org
• www.projhope.org/cha/rural/index.htm

The Project HOPE Walsh Center for Rural Health Analysis was established in 1996 to study policy issues affecting health care in rural America. The Center's current focus is on the impact of Medicare reforms on rural areas. Staff of the Walsh Center are drawn from Project HOPE's Center for Health Affairs (CHA), which was founded in 1981 to study health policy issues for the policy making community and other consumers of health services research. CHA projects have addressed issues related to location and practice decisions of rural physicians and other providers, access to care among vulnerable populations, and cost-effectiveness of new medical technologies. CHA has conducted simulations on changes in provider payment methodologies and has analyzed Medicare claims data as well as data from the National Health Interview Survey (NHIS), the National Medical Expenditure Survey (NMES), and the Medicare Current Beneficiary Survey (MCBS). CHA staff have presented study findings to Congressional commissions and contributed to Department of Health and Human Services reports to Congress.

Selected Publications

Working Papers/Reports

2002

Mohr, P.E. & Schoenman, J.A. (2002, July). *Federal funding for emergency medical services.*

Mueller, C.D., & Schur, C.L. (2002, October). *Insurance coverage of prescription drugs and the rural elderly*.

Mueller, C.D,. Schur, C.L., & Milet, M. (2002, May). *Outreach and the State Children's Health Insurance Program: Lessons from three rural states.* Final Report to the Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services.

O'Grady, M.J., Mueller, C.D. & Wilensky, G.R. (2002, March). *Essential research issues in rural health: The State Rural Health Directors' perspective.*

O'Grady, M J., Mueller, C.D. & Wilensky, G.R. (2002, March). *How State Rural Health Directors obtain and use research.*

Stensland, J. Sutton, J. & Milet, M. (2002, August). *Are fundamental changes to Medicare's disproportionate share methodology needed?*

Stensland, J., Schoenman, J., Mueller, C.,& Singer, A. (2002, July). *Capital needs of small rural hospitals*.

Stensland, J. & Milet, M. (2002, February). *Variance in the profitability of small-town rural hospitals*.

Sutton, J.P., Franco, S.J,. Mueller, C., Dunbar, J., & Blanchfield, B. (2002, December). *Rural dimensions of Medicare reimbursement for inpatient and outpatient institutional and physician services.*

2001

Blanchfield, B., Sutton, J., Milet, M., & Franco, S. (2001). *Will the outpatient prospective payment system increase the number of distressed rural hospitals in Iowa, Texas, Washington, and West Virginia.*

Mohr, P.E. (2001). *The quality of Medicare outpatient claims data and its implications for rural outpatient payment policy*. http://www.projecthope.org/CHA/pdf/opt_qual.pdf

Mohr, P.E., Cheng, C.M., & Mueller, C.D. (2001). *Establishing a fair Medicare reimbursement for low-volume ambulance providers*.http://www.projecthope.org/CHA/pdf/WVol4no2.pdf

Sutton, J., Blanchfield, B., Singer, A., & Milet, M. (2001). *Is the rural safety net at risk? Analyses of charity and uncompensated care provided by rural hospitals in Washington, West Virginia, Texas, Iowa, and Vermont.* http://www.projecthope.org/CHA/pdf/WVol4No1.pdf

Other Publications

2002

Moscovice, I. & Stensland, J. (2002). Rural hospitals: Trends, challenges, and a future research and policy analysis agenda. *Journal of Rural Health*, *18*(S), 197-210.

Schoenman, J.A., Mohr, P.E., Mueller, C.D., & Millet, M. (2002). EMS initiatives under the Flex Grant Program. In *Rural Hospital Flexibility Program Tracking Project: Year Three Report (covering fiscal year 2001-2002)* (Chapter 4). Washington, DC: Federal Office of Rural Health Policy. http://www.rupri.org/rhfp-track/year3/Report.pdf.

Schur, C.L., Berk, M.L., Dunbar, J.R., Shapiro, M.F., Cohn, S.E., & Bozzette, S.A. (2002). Where to seek care: An examination of persons in rural areas with HIV/AIDS. *Journal of Rural Health, 18*(2), 337-347.

Stensland, J., Brasure, M., & Moscovice, I. (2002). Why do rural primary-care physicians sell their practices? *Journal of Rural Health*, *18*(1), 93-108.

Stensland, J. & Stinson, T. (2002). Successful physician-hospital integration in rural areas. *Medical Care*, *40*(10), 908-917.

Sutton, J., Stensland, J., Zhao, L., & Cheng, M. (2002). Achieving equity in DSH payments to rural hospitals: An assessment of financial impact of recent and proposed changes to the DSH payment formula. *Journal of Rural Health*, *18*(4), 494-502.

2001

Blanchfield B., Sutton J. P. (2001). *Rural quality of care: Issues and challenges*. Report prepared for the Medicare Payment Advisory Commission.

Cohn, S.E., Berk, M.L., Berry, S.H., Duan, N., Frankel, M.R., Klein, J.D., McKinney, M.M., Rastegar, A., Smith, S., Shapiro, M.F., & Bozzette, S.A. (2001). The care of HIV-infected adults in rural areas of the United States. *Journal of Acquired Immune Deficiency Syndromes, 28*(4), 385-92.

Mueller, C.D. (2001). Physician perceptions of the Critical Access Hospital. In *Rural hospital flexibility program tracking project. Year 02 report (covering fiscal year 2000-2001)* (pp. 3H1-16). Washington, DC: Federal Office of Rural Health Policy. http://www.rupri.org/rhfp-track/year2/index.html

Schoenman, J.A., Mohr, P., & Mueller, C.D. (2001). EMS activities under the Rural Hospital Flexibility Program. In *Rural hospital flexibility program tracking project. Year 02 report (covering fiscal year 2000-2001)* (pp. 4/1-4/35). Washington, DC: Federal Office of Rural Health Policy. http://www.rupri.org/rhfp-track/year2/index.html

Sutton, J.P., Blanchfield, B.B., & Milet, M. (2001). Profitability of rural hospitals in Texas: Implications for access to charity care. *Texas Journal of Rural Health, 19(1)*, 40-48.

Rural Policy Research Institute
Center for Rural Health Policy Analysis

Director: Keith J. Mueller, Ph.D.
University of Nebraska Medical Center
984350 Nebraska Medical Center
Omaha, NE 68198-4350
• 402-559-5260 • Fax: 402-559-7259
•kmueller@unmc.edu
•www.rupri.org/healthpolicy

The mission of the Rural Policy Research Institute (RUPRI) Center for Rural Health Policy Analysis is to provide timely analysis to federal and state health policymakers based on the best available research. The RUPRI Center is built upon the solid foundation laid by the past seven years of work conducted by the RUPRI Rural Health Panel. The work of the Rural Health Panel continues through collaboration with the RUPRI Center for Rural Health Policy Analysis.

The research of the RUPRI Center focuses on rural health care financing/system reform, rural systems building, and meeting the health care needs of special rural populations. Specific objectives include:

- Conducting original research and independent policy analysis that provides policymakers and others with a more complete understanding of the implications of health policy initiatives; and

- Disseminating policy analysis that assures policymakers will consider the needs of rural health care delivery systems in the design and implementation of health policy.

The RUPRI Center for Rural Health Policy Analysis is based at the University of Nebraska Medical Center, in the Department of Preventive and Societal Medicine, Section on Health Services Research and Rural Health Policy.

Selected Publications

Reports and Policy Papers

P2002-3. Special J-1 Visa Waiver Program Task Force, Mueller, K.J. & RUPRI Rural Health Panel. (2002). *The immediate and future role of the J-1 Visa Wavier Program for physicians: The consequences of change for rural health care service delivery.* http://www.rupri.org/pubs/archive/reports/P2002-3/index.html

P2001-14. RUPRI Rural Health Panel. (2001).*Comments on the June 2001 Report of the Medicare Payment Advisory Commission:* "*Medicare in Rural America"*
http://www.rupri.org/programs/health/misc/MedPACcomments.pdf

P2001-3. Mueller, K. J. & RUPRI Rural Health Panel. (2001). *Rural implications of the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000. Final Bill: P.L. 106-554.*
http://www.rupri.org/pubs/archive/reports/P2001-3/index.html

SM-1. RUPRI Rural Health Panel. (2001). *Redesigning Medicare: Considerations for rural beneficiaries and health systems.* http://www.rupri.org/pubs/archive/reports/Monograph/index.html

Policy Briefs

PB2002-1. Mueller, K.J., Shay, B. & RUPRI Rural Health Panel. (2002). *Comments on regulatory and contractor reform legislation.*
http://www.rupri.org/pubs/archive/pbriefs/PB2002-1/pb2002-1.pdf

PB2002-2. McBride, T.D., Mueller, K.J. & RUPRI Rural Health Panel. (2002). *Inequitable access: Medicare+Choice program fails to serve rural America.*
http://www.rupri.org/pubs/archive/pbriefs/PB2002-2/pb2002-2.pdf

PB2002-4. McBride, T.D., Andrews, C., Makarkin, A., Mueller, K.J., & RUPRI Rural Health Panel. (2002). *An update on Medicare+Choice: Rural Medicare beneficiaries enrolled in Medicare+Choice plans through September 2001.*
http://www.rupri.org/pubs/archive/pbriefs/PB2002-4/pb2002-4.pdf

PB2002-5. Shambaugh-Miller, M.D., Stoner, J.A., Pol, L.G., Mueller, K.J. & RUPRI Rural Health Panel. (2002). *Health services at risk in "vulnerable" rural places.*
http://www.rupri.org/pubs/archive/pbriefs/PB2002-5/pb2002-5.pdf

PB2001-8. McBride, T., Penrod, J., Mueller, K., Andrews, C., Hughs, M. & RUPRI Rural Health Panel. (2001). *Can payment policies attract M+C plans to rural areas?* http://www.rupri.org/pubs/archive/pbriefs/PB2001-8/pb2001-8/pdf

PB2001-7. McBride, T., Andrews, C., Mueller, K. & RUPRI Rural Health Panel. (2001). *An update on Medicare+Choice: Rural beneficiaries enrolled in Medicare+Choice plans through October 2000.*
http://www.rupri.org/pubs/archive/pbriefs/PB2001-7/pb2001-7/pdf

PB2001-6. RUPRI Rural Health Panel. (2001). *Redesigning Medicare: Considerations for rural beneficiaries and health systems.* http://www.rupri.org/pubs/archive/pbriefs/PB2001-6/pb2001-6/pdf.

PB2001-4. Mueller, K. J. & RUPRI Rural Health Panel. (2001). *Rural implications of the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000: Concerns, Legislation, and Next Steps (Companion Brief to P2001-3).* http://www.rupri.org/pubs/archive/pbriefs/PB2001-8/pb2001-8/pdf

Other Publications

2002

Dalton, K., Mueller, C., & Mueller, K.J. (Spring 2002). New policy ideas for rural health care delivery: Presentations before a Congressional committee. *Journal of Rural Health, 18*(2), 278-281.

McBride. T.D., & Mueller, K.J. (2002). Effects of Medicare payment on rural health care systems. *Journal of Rural Health, 18*(S), 147-163.

2001

Mueller, K.J., Shay, B.L., Fletcher, J.L., & McBride, T.D. (2001). Medicare+Choice experiences in rural areas. *Journal of Rural Health, 17*(2), 87-90.

Penrod, J.D., McBride, T.D., & Mueller, K.J. (2001). Geographic variation in determinants of Medicare managed care enrollment. *Health Services Research, 26*(4), 733-750.

South Carolina Rural Health Research Center

Director: Janice C. Probst, Ph.D.
Deputy Director: Saundra Glover, Ph.D.
Arnold School of Public Health
University of South Carolina
220 Stoneridge Drive, Suite 204
Columbia, SC 29210
•803-251-6317 • Fax: 803-777-1836
•jprobst@gwm.sc.edu; sglover@gwm.sc.edu
•http://rhr.sph.sc.edu

The mission of the South Carolina Rural Health Research Center is to shed light on persistent inequities in health status among the population of the rural US with an emphasis on factors related to socioeconomic status, race and ethnicity, and access to healthcare services. Through the attainment of this mission, the Center also hopes to achieve the following:

- Develop and conduct the research necessary to provide a clear picture of health status, health care needs, health service use, and health outcomes among rural, minority groups.

- Investigate the effectiveness of policies aimed at improving health and reducing the barriers to health care for rural poor and minority individuals.

- Promote the development of minority researchers and clinical providers interested in addressing the problems of rural poor and minority populations.

- Stimulate health services research, demonstration, clinical trial, and services capacity in the rural minority communities.

- Provide expert advice to national, state, and local governments as well as to rural and minority constituency groups to empower policy development and advocacy.

- Develop a repository of knowledge and information on poor and minority health issues.

The Center is based in the Department of Health Administration, Arnold School of Public Health, University of South Carolina. Our research partners include: Office of Research, South Carolina Budget and Control Board, Department of Family and Preventive Medicine, University of South Carolina School of Medicine, College of Nursing and Department of Family Medicine, Medical University of South Carolina and the West Virginia Center for Healthcare Policy and Research, West Virginia University.

Selected Publications

Working Papers/Reports

2003

Goldsteen, K., & Goldsteen, R.L. (2003). *Demand for medical services among previously uninsured children: The roles of race and rurality.*

Mainours, A.G., King, D.E., Garr, D.R., & Pearson, W.S. (2003). *Diabetes and cardiovascular disease in rural African Americans.*

Patterson, P.D., Probst, J.C., Moore, C.G., & Samuels, M.E. (2003). *Hypertension, diabetes, cholesterol, and health improvement activities among non-metro minority adults.*

Patterson, P.D., Probst, J.C., Moore, C.G., & Samuels, M.E. (2003). *Prevalence of health related behavioral risk factors among non-metro minority adults.*

Probst, J.C. , Samuels, M.E., & Moore, C.G. (2003). *Health insurance and physician visits among non-metro working adults.*

2002

Probst, J.C., Samuels, M.E., Jespersen, K.P., Willert, K., Swann, R.S., & McDuffie, J.A. (2002). *Minorities in rural America: An overview of population characteristics.*
http://rhr.sph.sc.edu/report/MinoritiesInRuralAmerica.pdf

Probst, J.C., Moore, C.G., Roof, K.W., Baxley, E.G., & Samuels, M.E. (2002). *Access to care among rural minorities: Children.*

Probst, J.C., Samuels, M.E., Moore, C.G., & Gdovin, J. (2002). *Access to care among rural minorities: Older adults.*

2001

Samuels, M. ., Probst, J. ., Willert, K., Bailey, W., & Corley, E. (January 2001). *Development of a research agenda on the issues of access to care and reduction of health status disparities of rural African Americans in South Carolina.*

Other Publications

Forthcoming

Guillory, V.J., Samuels, M.E., Probst, J.C., & Shi, L. (in press). Prenatal care, risk factors, and infant birth outcomes in a poor rural county. *Journal of Health Care for the Poor and Underserved.*

Probst, J.C., Samuels, M.E., Shaw, T.V., Hart, L.G., & Daly, C. (in press). The National Health Service Corps and Medicaid inpatient care: Experience in a southern state. *Southern Medical Journal.*

2002

Probst, J.C., Moore, C.G., Baxley, E.G. & Lammie, J.L. (2002). Rural-urban differences in visits to primary care physicians. *Family Medicine, 34*(8), 609-615.

2001

Samuels, M., Cochrane, C. & Shi, L. (2001). A profile of women medical directors in community and migrant health centers, *Journal of Ambulatory Care Management*, *24* (1), 84-91.

Kim, Y., Stoskopf, C., & Glover, S.H**.** (2001). Factors affecting total hospital charges and utilization for South Carolina inpatients with HIV/AIDS in 1994-1996. *AIDS Patient Care and STDs*, *13*(5), 277-287.

Kim, Y., Stoskopf, C., & Glover, S.H**.** (December 2001). Dual diagnosis: HIV and mental illness, a population-based study. *Community Mental Health Journal*, *37*(6), 469-479.

Southwest Rural Health Research Center

Director: Catherine Hawes, Ph.D.
Associate Director: Larry Gamm,Ph.D.
School of Rural Public Health, 1266 TAMU
Texas A&M University System Health Science Center
College Station, Texas 77843-1266
• (979) 458-0653 or (979) 458-0081 (Hawes) • Fax: (979) 458-0656
• hawes@srph.tamushsc.edu
• http://www.srph.tamushsc.edu/srhrc

The Southwest Rural Health Research Center (SRHRC) at the Texas A&M University System Health Science Center School of Rural Public Health is one of six rural health research centers funded by the federal Office of Rural Health Policy. The SRHRC is an integral part of the only school of public health with a specific focus on rural issues, the School of Rural Public Health in the Texas A&M University System Health Science Center. The SRHRC was founded in 2000 and serves as a focal point for uniting other parts of the Texas A&M System to conduct and disseminate policy-relevant research on critical rural health issues. Texas A&M, however, has a long history of conducting research, education, and service in rural areas. Thus, the SRHRC draws its senior investigators from across the University and the Health Science Center, including the School of Rural Public Health, the College of Medicine, the Center for Health Services Research, the Center for Housing and Urban Development, the Department of Rural Sociology and the Public Policy Research Institute.

The Center and its investigators conduct policy-relevant research in a number of areas. However, SRHRC has selected three main areas of focus as part of its work for the federal Office of Rural Health Policy. These areas are:

- Meeting the needs of special rural populations, particularly those with chronic diseases and disabilities;
- Understanding and addressing the special health needs of minority populations and eliminating or reducing health disparities; and
- Maintaining and building the capacity of rural health systems.

In addition, the SRHRC has several long-term objectives that are an outgrowth of both the mission of the Texas A&M School of Rural Public Health and the interests and long-term commitments of core and affiliated faculty of the SRHRC. In particular, the SRHRC collaborates with other Texas A&M entities on policy analyses and program evaluations for state and federal agencies on projects and studies that have a specific focus on issues related to rural health or health care for vulnerable or disadvantaged populations. Finally, SRHRC is part of a long-standing tradition at Texas A&M in implementing and evaluating community health interventions in rural and border areas.

Selected Publications

2003

Gamm, et al. (in press). Rural health priorities in America: Where you stand depends on where you sit. *Journal of Rural Health.*

Gamm, L, & Hutchison, L., (Eds.). (2003). *Rural Healthy People 2010: A companion document to Healthy People 2010.*

Hawes, M.C., Phillips, C.D., Sherman, M., & Munoz, Y. (2003). *A comparison of assisted living for the frail elderly in rural and non-rural areas.*

May, M., Contreras, R., et al. (2003). Mujer Y Corazon: *Community health workers and their organizations on the U.S. Mexico Border: An exploratory study.*

Phillips, C.D, Hawes, M.C., Sherman, M., & Leyk, M. (2003). *Rural and urban nursing homes and residents chart book, 2000*.

Zuniga, M.A., Bolin, J.N., & Gamm, L.D. (2003). *Chronic disease management in rural areas.*

2002

Carozza, S. (2003). *Breast and cervical cancer screening: Is it reaching rural and minority women?*

Gamm, Larry (2002). *White Paper: Models for meeting the mental health needs of people living in rural areas (Rural Mental health).* A report for the U.S. Substance Abuse and Mental Health Services Administration, Center for Mental Health Services.

Gamm, L., Hutchison, L., Bellamy, G., & Dabney, B.J. (2002). Rural Healthy People 2010: Rural health priorities and models for practice. *Journal of Rural Health, 18*(1), 9-14.

PACE Policy Paper #1. Hawes, MC & Rushing, M (2002). Program for All-Inclusive Care for the Elderly (PACE): Can it serve rural areas?

PACE Policy Paper #2. Hawes, C. & Rushing, M. (2002). Program for All-Inclusive Care for the Elderly (PACE): Integrate, comprehensive, and case managed programs serving the elderly in rural areas: Are there lessons for PACE?

2001

Bellamy, G. (2001). Connecting the dots: Policy, partnerships and public health. Proceedings from "Bridging Rural Women's Health into the New Millennium." *Women's Health Issues, 11*(1), 30-34.

Gamm, L., Alexander, J. & Petter, B. (2001). *Tools and templates for rural health network development*. Report submitted to the Center for Rural Health Initiatives, Austin, Texas.

WWAMI Rural Health Research Center

Director: L. Gary Hart, Ph.D.
Department of Family Medicine, Box 354696
University of Washington,
Seattle, Washington 98195-4696
• 206-685-0402 • Fax: 206-616-4768
•ghart@fammed.washington.edu
• www.fammed.washington.edu/wwamirhrc

The WWAMI Rural Health Research Center (RHRC) is one of six rural health research centers fully funded by the Office of Rural Health Policy to perform policy-oriented research on issues related to rural health care. The WWAMI RHRC, which was established in 1988, is based in the Department of Family Medicine at the University of Washington School of Medicine and works closely with the WWAMI Center for Health Workforce Studies, the Programs for Healthy Communities staff, other departments and schools, the Washington State Department of Health, and Area Education Centers in the five WWAMI states (Washington, Wyoming, Alaska, Montana, and Idaho).

Major areas of inquiry at the WWAMI RHRC are:

- Training and supply of rural health care providers and the content and outcomes of the care they provide;
- Availability and quality of care for rural women and children, including obstetric and perinatal care; and
- Access to high-quality care for vulnerable and minority rural populations

The WWAMI RHRC conducts its studies in the context of the changing health care environment.

Selected Publications

Working Papers

73. Patterson, D. & Skillman, S. M. (2002, October). *Health professions education in Washington State: 1996-2000 program completion statistics.* WWAMI Center for Health Workforce Studies.

72. Baldwin, L.-M., MacLehose, R. F., Hart, L. G., Beaver, S. K., Every, N. & Chan, L. (2002, June). *Quality of care for acute myocardial infarction in rural and urban U.S. hospitals.*

71. House, P. J. (2002, March). *The direct-care paraprofessional workforce providing long-term care services in the United States: Wyoming case study.* WWAMI Center for Health Workforce Studies.

70. Palazzo, L., Hart, L. G. & Skillman, S. M. (2002, March). *The impact of the changing scope of practice of NPs, CNMs, and PAs on the supply of practitioners and access to care: Oregon case study.* WWAMI Center for Health Workforce Studies.

69. Rosenblatt, R. A., Schneeweiss, R., Hart, L. G., Casey, S., Andrilla, C. H. A. & Chen, F. M. (2002, March). *Family medicine residency training in rural areas: How much is taking place, and is it enough to prepare a future generation of rural family physicians?*

68. Skillman, S. M., Hutson, T., Andrilla, C. H. A., Berkowitz, B. & Hart, L. G. (2002, May). *How are Washington State hospitals affected by the nursing shortage? Results of a 2001 survey.* WWAMI Center for Health Workforce Studies.

67. Hart, L. G. (2001, September). *The Evaluation Questionnaires of Office for the Advancement of Telehealth Grantees*.

66. Thompson, M. J.; Skillman, S. M.; Johnson, K., Schneeweiss, R., Ellsbury, K. & Hart, L. G. (2001, September). *Assessing physicians' continuing medical education (CME) needs in the U.S.-Associated Pacific Jurisdictions.*

65. Rosenblatt, R. A., & Rosenblatt, F. S. (2001, June). *The role and function of small isolated public health departments: A case study in three western states.*

64. Larson, E. H., Palazzo, L., Berkowitz, B., Pirani, M. J. & Hart, L. G. (June 2001). *The contribution of nurse practitioners and physician assistants to generalist care in underserved areas of Washington state.*

63. Norris, T. E., Hart, L. G., Larson, E. H., Tarczy-Hornoch, P., Masuda, D., Fuller, S., House, P. J. & Dyck, S. M. (2001, February). *Low-bandwidth, low-cost telemedicine consultations between rural family physicians and academic medical center specialists: A multifaceted satisfaction study*

62. Ellsbury, K. E., Baldwin, L. M., Johnson, K., Runyan, S., & Hart, L. G. (2001, February). *Gender-related factors in the recruitment of generalist physicians to the rural Northwest*.

61. Rosenblatt, R. A., Casey, S., & Richardson, M. (2001, January). *Rural-urban differences in the public health workforce: Findings from local health departments in three rural western states.*

60. Wright, G. E., Paschane, D. M., Baldwin, L. M., Domoto, P., Cantrell, D. & Hart, L. G. (2001, March). *Distribution of the dental workforce in Washington State: Patterns and consequences*.

59. Rosenblatt, R.A., Baldwin, L-M., Chan, L., Fordyce, M.A., Hirsch, I.B., Palmer, J.P., Wright, G.E. & Hart, L.G. (2000, March). *The quality of diabetic care received by diabetic patients in Washington State: A rural-urban comparison.*

58. Hart, L.G., Norris, T.E., & Lishner, D.M. (2001, May). *Attitudes of family physicians toward physician-assisted suicide.*

57. Larson, E. H., Hart, L. G., & Ballweg, R. (2000, January). *National estimates of physician assistant productivity.*

51. Hart, L. G., Rosenblatt, R. A., Lishner, D. M., Friedman, H., & Baldwin, L. M. (forthcoming). *Where do elderly rural residents obtain their physician care?*

50. Morrill, R., Cromartie, J., & Hart, L. G. (2002). *A guide to the use of Rural and Urban Commuting Areas (RUCAs) in health care analyses.* http://www.fammed.washington.edu/wwamirhrc/rucas.htm.

45. Wright, G.E., & Andrilla, H.A. (2001, April). *How many physicians can a rural community support? A practice income potential model for Washington State.*

Other Publications

Forthcoming

Chen, F., Phillips Jr., R.L., Schneeweiss, R., Andrilla, H.A., Hart, L.G., Fryer Jr., G.E., Casey, S. & Rosenblatt, R.A. (in press). Accounting for graduate medical education funding in family practice training. *Family Medicine.*

Probst, J.C., Samuels, M.E., Shaw, T.V., Hart, L.G., & Daly, C. (in press). The National Health Service Corps and Medicaid inpatient care: Experience in a southern state. *Southern Medical Journal.*

Schneeweiss, R., Rosenblatt, R.A., Dovey, S., Hart, L.G., Chen, F.M., Casey, S., & Fryer Jr., G. E. (in press). The impact of the 1997 Balanced Budget Act on family practice residency training programs. *Family Medicine.*

2002

Baldwin L.-M., Grossman, D., Casey, S., Hollow, W., Sugarman, J., Freeman, W. & Hart, L.G. (2002). Perinatal and infant health among rural and urban American Indians/Alaska Natives. *American Journal of Public Health*, *92*(9), 1491-1497.

Ellsbury K.E., Baldwin, L-M., Johnson, K., Runyan, S. & Hart, L.G. (2002). Gender related factors in the recruitment of generalist physicians to rural areas of the Northwest. *Journal of the American Board of Family Practice*, *15*, 391-400.

Hagopian, A., Kaltenback, E., Thompson, M.J., House, P.J., & Hart, L.G. (2002). Workforce issues at Critical Access Hospitals. In *Rural Hospital Flexibility Program Tracking Project: Year Three Report (covering fiscal year 2001-2002)* (Chapter 3E). Washington, DC: Federal Office of Rural Health Policy. http://www.rupri.org/rhfp-track/year3/Report.pdf.

Hart, L. G., Salsberg, E., Phillips, D. M., & Lishner, D. M. (2002). Rural health care providers in the United States. *Journal of Rural Health*, *18* (S), 211-232.

House, P. & Duncan, D. (2002). State-based evaluations. In *Rural Hospital Flexibility Program Tracking Project: Year Three Report (covering fiscal year 2001-2002)* (Chapter 6). Washington, DC: Federal Office of Rural Health Policy. http://www.rupri.org/rhfp-track/year3/Report.pdf.

Norris, T. E., Hart, L. G., Larson, E., Tarczy-Hornoch, P., Masuda, D., Fuller, S., House, P. & Dyck, S. (2002). Low-bandwidth, low-cost telemedicine consultations between rural family physicians and academic medical center specialists: a multifaceted satisfaction study. *Journal of the American Board of Family Practice*, *15*(2), 123-127.

Rosenblatt, R. A. (2002). Quality of care in the rural context: a proposed research agenda. *Journal of Rural Health*, *18 (S),* 176-185.

Rosenblatt, R. A., Casey, S. & Richardson, M. (2002). Rural-urban differences in the public health workforce: Findings from the local health departments in three rural western states. *American Journal of Public Health*, *92*(7), 1102-1105.

Rosenblatt, R. A., Schneeweiss, R., Hart, L. G., Casey, S., Andrilla, C. H. A., & Chen, F. M. (2002). Family medicine training in rural areas. *JAMA*, *288*(9), 1063-1064.

2001

Coombs, J. (2001). Quality of care in rural settings: Bringing the "new quality" to rural practice. In J.P. Geyman, T.E. Norris, & L.G. Hart (Eds.), *Textbook of rural medicine* (pp. 325-640). New York: McGraw-Hill.

Ellsbury, K.E., Doescher, M.P., & Hart, L.G. (2001). U.S. medical schools and the rural family physician gender gap. *Family Medicine, 32*(5), 331-337.

Fink, K.S., Baldwin, L-M., Lawson, H.W., Chan, L., Rosenblatt, R.A., Hart, L.G. (2001). The role of gynecologists in providing primary care to elderly women. *Journal of Family Practice, 50*(2), 153-158.

Geyman, J.P. (2001). Graduate education for rural practice. In J.P. Geyman, T.E. Norris & L.G. Hart (Eds.), *Textbook of rural medicine* (pp.369-380). New York: McGraw-Hill.

Hagopian, A., Hart, L.G., et al. (2001). Rural Hospital Flexibility Program: the Tracking Project reports first-year findings. *Journal of Rural Health, 17*(2), 82-86.

Hart, L.G. & Taylor, P. (2001). The emergence of federal rural health policy in the United States. In J.P. Geyman, T.E. Norris & L.G. Hart (Eds.), *Textbook of rural medicine* (pp. 73-90). New York: McGraw-Hill.

Larson, E.H. & Hart, L.G. (2001). The rural physician. In J.P. Geyman, T.E. Norris & L.G. Hart (Eds.), *Textbook of rural medicine* (pp. 27-40). New York: McGraw-Hill.

Larson, E.H., Hart, L.G. & Ballweg, R. (2001, September). National estimates of physician assistant productivity. *Journal of Allied Health*, *30*(3), 146-152.

Levine, P., Lishner, D., Richardson, M. & Porter, A. (2001). Faces on the data: access to health care for people with disabilities living in rural communities. In Moore R.M. III (Ed.), *The Hidden America: Social problems in rural America for the twenty-first century.* New Jersey: Associated University Presses.

Norris, T. (2001). Telehealth. In J.P. Geyman, T.E. Norris & L.G. Hart (Eds.), *Textbook of rural medicine* (pp. 249-260). New York: McGraw-Hill.

Richardson, M., Casey, S., & Rosenblatt, R.A. (2001). Local health districts and the public health workforce: a case study of Wyoming and Idaho. *Journal of Public Health Management and Practice,* 7(1), 37-48.

Rosenblatt, R.A. (2001). The health of rural people and the communities and environments in which they work. In J.P. Geyman, T.E. Norris & L.G. Hart (Eds.), *Textbook of rural medicine* (pp. 3-14). New York: McGraw-Hill.

Rosenblatt R.A., Baldwin L-M., Chan L., Fordyce M.A., Hirsch, I.B., Palmer J.P., Wright G.E. & Hart L.G. (2001). Improving the quality of outpatient care for older patients with diabetes: lessons from a comparison of rural and urban communities. *Journal of Family Practice*, 50(8), 676-680.

Vath, B.E.& Schneeweiss, R. (2001). Volunteer physician faculty and the changing face of medicine. *Western Journal of Medicine, 174*, 242-246.

Williams, R. & House, P. (2001). Community oriented primary care and rural services development. In J.P. Geyman, T.E. Norris & L.G. Hart (Eds.), *Textbook of rural medicine* (pp. 341-355). New York: McGraw-Hill.

Maine Rural Health Research Center

Director: Andrew F. Coburn, Ph.D.
Institute for Health Policy, Edmund S. Muskie School of Public Service
University of Southern Maine,
PO Box 9300, Portland, Maine 04104-9300
• 207-780-4430 • Fax 207-780-4417
• andyc@usm.maine.edu
• www.muskie.usm.maine.edu/research/ruralheal/

Established in 1992, the Maine Rural Health Research Center (MRHRC) is part of the Institute for Health Policy at the Edmund S. Muskie School of Public Service, University of Southern Maine. The Center's mission is to inform health care policymaking and the delivery of rural health services through high quality research, policy analysis, and technical assistance on rural health issues of regional and national significance. The MRHRC is committed to enhancing policymaking and improving the delivery and financing of rural health services by effectively linking its research to the policy development process through appropriate dissemination strategies. The Center has three areas of special interest in its research agenda:

- The availability, organization, and financing of rural behavioral health services;
- Institutional and community-based services for rural elders; and
- Changes in the organization and financing of rural health services.

Selected Publications

Working Papers

Gale, J.A. and Coburn, A.F. (2003, January). *The characteristics and roles of Rural Health Clinics in the United States: A chartbook.*

30. Hartley, D., Bird, D.C., Lambert, D., & Coffin, J. (2002, November). *The role of community mental health centers as rural safety net providers.*

29. Hartley, D., Ziller, E. C., Lambert, D., Loux, S. L., & Bird, D. (2002, May). *State licensure laws and the mental health professions: Implications for the rural mental health workforce.* Executive Summary. http://www.usm.maine.edu/Publications/rural/MHLicensureExecSum.pdf

28. Hartley, D., Ziller, E. C., & Macdonald, C. (2002, January). *Diabetes and the rural safety net.*

26. Coburn, A. F., McBride, T. & Ziller, E. C. (2001). *Patterns of health insurance coverage among rural and urban children.* http://www.muskie.usm.maine.edu/Publications/rural/wp26.pdf

25. Bolda, E. J. & Murray, K. M. (2000). *Admission severity and mortality rates among urban and rural nursing facility residents with dementia.* http://www.muskie.usm.maine.edu/Publications/rural/wp25.pdf

24. Lambert, D., Gale, J. A., Bird, D. C. & Hartley, D. (2000). *Medicaid managed behavioral health in rural areas.* http://www.muskie.usm.maine.edu/Publications/rural/wp24.pdf

23. Bird, D. C., Dempsey, P. & Hartley, D. (2001). *Efforts to address mental health workforce needs in underserved rural areas.* http://www.muskie.usm.maine.edu/Publications/rural/wp23.pdf

Other Publications

Forthcoming

Hartley, D., & Gale, J. (forthcoming). Monitoring rural health care safety nets. In *Tools to help analyze the status of local health care safety nets.*

Taylor, P., Blewett, L., Brasure, M., Call, K, Larson, E., Gale, J., Hagopian, A., Hart, L.G., Hartley, D., House, P, James, M., & Ricketts, T. (in press). Small town health care safety nets: Report on a pilot study. *Journal of Rural Health*.

2003

Gale, J. A., & Deprez, R. D. (2003, February). A public health approach to the challenges of rural mental health service integration. In B. H. Stamm (Ed.), *Rural behavioral health care: An interdisciplinary guide* (pp. 95-108). Washington, DC: APA Books.

Lambert, D., Gale, J., Bird, D. C., & Hartley, D. (2003, Winter). Medicaid managed behavioral health in rural areas. *Journal of Rural Health, 19*(1), 22-32.

2002

Coburn, A. F. (2002). Rural long term care: What do we need to know to improve policy and programs? *Journal of Rural Health, 18(*S), 256-269.

Coburn, A.F., Gale, J.A., Poley S.T., Slifkin, R.T., and Walsh, J.F. (2002, September 25). State Medicaid payment policies for Critical Access Hospitals. In *Rural Hospital Flexibility Program Tracking Project: Year Three Report (covering fiscal year 2001-2002)* (Chapter. 5). Washington, DC: Federal Office of Rural Health Policy. http://www.rupri.org/rhfp-track/year3/Report.pdf.

Coburn, A.F., McBride, T.D., & Ziller, E. C. (2002). Patterns of health insurance coverage among rural and urban children. *Medical Care Research and Review, 59*(3), 272-292.

Gale, J.A. (2002, September 25). State approaches to the certification of necessary providers in the Rural Hospital Flexibility Program. In *Rural Hospital Flexibility Program Tracking Project: Year Three Report (covering fiscal year 2001-2002)* (Chapter 1). Washington, DC: Federal Office of Rural Health Policy. http://www.rupri.org/rhfp-track/year3/Report.pdf.

Gale, J.A. (2002, September 25). The safety net activities of Critical Access Hospitals. In *Rural hospital flexibility program tracking project. Year Three Report (covering fiscal year 2001-2002)* (Chapter 3F). Washington, DC: Federal Office of Rural Health Policy. http://www.rupri.org/rhfp-track/year3/Report.pdf.

Hartley, D. (2002). Commentary [on article by Rost, Fortney, Fischer & Smith. Use, quality and outcomes of care for mental health: The rural perspective.]. *Medical Care Research and Review, 59*(3), 266-271.

Hartley, D., Britain, C., & Sulzbacher, S. (2002). Behavioral health: Setting the rural health research agenda. *Journal of Rural Health, 18(*S), 242-255.

Hartley, D., & Gale, J. (2002). Staffing patterns and workforce strategies used by CAHs. In *Rural Hospital Flexibility Program Tracking Project: Year Three Report (covering fiscal year 2001-2002* (Chapter 3D). Washington, DC: Federal Office of Rural Health Policy. http://www.rupri.org/rhfp-track/year3/Report.pdf

2001

Bolda, E.J. & Seavey, J.W. (2001) Rural long term care integration: Developing service capacity. *Journal of Applied Gerontology, 20*(4), 426-457.

Coburn, A.F. (2001). The evolving state role in the implementation of the Rural Hospital Flexibility Program. In *Rural hospital flexibility program tracking project. Year 02 report (covering fiscal year 2000-2001),* (pp. 1-12). Washington, DC: ORHP. http://www.rupri.org/rhfp-track/year2/index.html

Coburn, A.F. (2001). Integrating rural primary, acute and long-term care services: Challenges and opportunities. In *Rural health care in Japan and the United States: Shared challenges and solutions. Conference summary and briefing papers* (pp. 113-130). Washington, DC: The Mansfield Center for Pacific Affairs. http://www.mcpa.org/PROGRAMS/coburn.pdf

Coburn, A.F. (2001). Models for integrating and managing acute and long term care services in rural areas. *Journal of Applied Gerontology, 20*(4), 386-408.

Coburn, A.F. & Bolda, E.J. (2001). Rural elderly and long term care. *Western Journal of Medicine, 174*(3), 209-213. http://www.ewjm.com

Gale, J.A. (2001). *From Wisconsin: The role of the stakeholder coalition model in the Rural Hospital Flexibility Program*. (Findings from the Field, Vol. 1, no.14, March 19, 2001). Seattle, WA: National Tracking Project Consortium Coordinating Center.

Gale, J.A. (2001). *Lessons from Maine, Minnesota, Texas, and Wisconsin: The continuum of work groups in the Rural Hospital Flexibility Program*. (Findings from the Field, Vol. 1, no.13, March 19, 2001). Seattle, WA: National Tracking Project Consortium Coordinating Center.

Gale, J.A. (2001). Local networking strategies used by Critical Access Hospitals. In *Rural hospital flexibility program tracking project. Year 02 report (covering fiscal year 2000-2001),* (pp. 3D1-14). Washington, DC: Federal Office of Rural Health Policy. http://www.rupri.org/rhfp-track/year2/index.html

Hartley, D. (2001). *Effects of managed mental health care on service use in urban and rural Maine. Journal of Rural Health, 17*(2), 95-104.

Hartley, D. (Fall 2001). Responding to the farm crisis in the UK. *Rural Mental Health, 26*(4), 11-12.

Hartley, D. (Fall 2001). A song about rural mental health. *Rural Mental Health, 26*(4), 10-11.

Hartley, D., Coburn, A.F., & Gale, J.A. (2001). Scopes of services in Critical Access Hospitals. In *Rural hospital flexibility program tracking project. Year 02 report (covering fiscal year 2000-2001)*, (pp. 3B1-16). Washington, DC: Federal Office of Rural Health Policy. http://www.rupri-org/rhfp-track/year2/index.htm

Lapping, M.B. (2001). Sufficient unto themselves: Life and economy among the Shakers in nineteenth century rural Maine. *Maine History, 40*(2), 87-112.

Saucier, P., & Fralich, J.T. (2001). Financing and payment issues in rural long term care integration. *Journal of Applied Gerontology, 20*(4), 409-425.

Turyn, R. (2001). Developing programs to meet the needs of Alzheimer's families in rural Maine. *Journal of Applied Gerontology, 20*(2), 241-250.

University of Minnesota
Rural Health Research Center

Director: Ira Moscovice, Ph.D.
University of Minnesota Rural Health Research Center
420 Delaware Street SE, Box 729, Minneapolis, Minnesota 55455
• 612-624-8618 • Fax: 612-624-2196
• mosco001@.tc.umn.edu
• www.hsr.umn.edu/rhrc

The University of Minnesota Rural Health Research Center was founded in 1992 as a separate entity within the Division of Health Services Research and Policy, School of Public Health, University of Minnesota. The Center's mission is to conduct high quality, empirically driven, policy-relevant research that can be disseminated in an effective and timely manner to help shape the delivery and financing of rural health services. The specific aims of the Center are:

- To conduct quantitative and qualitative health services research and policy analysis in a conceptually sound and methodologically rigorous manner on rural health issues that are important to both short- and long-term rural health policy formulation;

- To disseminate the results of original research to local, state, and federal policymakers who play key roles in the development of legislation and the administration of rural health care programs;

- To provide technical assistance to health care policymakers, helping them to understand the unique characteristics of rural health care systems and to implement program and interventions that address rural health care needs; and

- To train and develop future rural health services researchers by providing opportunities for doctoral student research assistant positions on our research projects.

Primary areas of research include: rural health care financing (e.g., issues related to managed care, Medicare, Medicaid, and private insurance); rural systems building (e.g., issues related to networks, managed care organizations, provider sponsored organizations, alternative models for small rural hospitals, and health personnel); and outcomes and delivery of care in rural areas (e.g., issues related to quality of care and implications of technology diffusion).

Selected Publications

Working Papers

43. Virnig, B., Moscovice, I., Kind, S., & Casey, M. (2002, January). *Use of the hospice benefit by rural Medicare beneficiaries*.

42. Knott, A. & Travers, K. (2002, August). *Implementing quality assessment and performance improvement systems in rural health clinics: Clinic and state agency responses*.

41. Gregg, W., Knott, A., & Moscovice, I. (2002, July). *Rural hospital access to capital: Issues and recommendations*.

40. Stensland, J., Brasure, M., Moscovice, I., & Radcliff, T. (2002, June). *The financial incentives for rural hospitals to expand the scope of their services.*

39. Radcliff, T., Brasure, M., Moscovice, I., & Stensland, J. (2002, June). *Understanding rural hospital bypass behavior*.

38. Knott, A. (2002, February). *Access to emergency medical services in rural areas: The supporting role of state EMS agencies*.

37. Stensland, J. & Moscovice, I. (2001, October). *Rural hospital's ability to finance inpatient, skilled nursing and home health care.*

36. Casey, M., Klingner, J., & Moscovice, I. (2001, July). *Access to rural pharmacy services in Minnesota, North Dakota, and South Dakota.*

35. Knott, A. & Christianson, J. (2001, January). *A rural government role in Medicaid Managed Care: The development of county-based purchasing in Minnesota.*

34. Casey, M., Call, K. & Klingner, J. (2000, November). *The influence of rural residence on the use of preventive health care services.*

35. Stensland, J., Moscovice, I. & Christianson, J. (2000, October). *The financial viability of rural hospitals in a post-BBA environment.*

32. Stensland, J., Brasure, M. & Moscovice, I. (2000, April). *Why do rural primary care physicians sell their practices?*

31. Wellever, A., Wholey, D. & Radcliff, T. (2000, January). *Strategic choices of rural health networks: Implications for goals and performance measurement*.

Other Publications

Monographs/Chartbooks

17. Casey, M., Moscovice, I. & Klingner, J. (2002, April). *Rural managed care: Expansion or evolution?*

16. Casey, M., Knott, A., & Moscovice, I. (2001, October). *Medicare minus choice: How HMO withdrawals affect rural beneficiaries.*

15 Gregg, W. & Moscovice, I. (2001, January). *Rural Health Network Development Grant Program – Monitoring report fiscal year 2000.*

Forthcoming

Radcliff, T., Brasure, M., Moscovice, I., & Stensland, J. (in press). Understanding rural hospital bypass behavior. *Journal of Rural Health.*

Gregg, W. & Moscovice, I. (in press). The evolution of rural health networks: Implications for health care managers. *Health Care Management Review.*

2002

Casey, M., Klingner, J., & Moscovice, I. (2002). Access to rural pharmacy services: Is the problem geographic access or financial access? *Journal of Rural Health, 18*(3), 467-476.

Casey, M., Knott, A., & Moscovice I. (2002). Medicare minus choice: The impact of HMO withdrawals on rural Medicare beneficiaries. *Health Affairs, 21*(3), 192-199.

Gregg, W.R. (2002). Access to capital for Critical Access Hospitals. In *Rural Hospital Flexibility Program Tracking Project: Year Three Report (covering fiscal year 2001-2002)* (Chapter 3C). Washington, DC: Federal Office of Rural Health Policy. http://www.rupri.org/rhfp-track/year3/Report.pdf.

Gregg, W.R, Moscovice, I., &Klingner, J.M. (2002). The organizational relationships and scope of services of Critical Access Hospitals. In *Rural Hospital Flexibility Program Tracking Project: Year Three Report (covering fiscal year 2001-2002)* (Chapter 3A). Washington, DC: Federal Office of Rural Health Policy. http://www.rupri.org/rhfp-track/year3/Report.pdf.

Moscovice, I., Gregg, W.R., & Klingner, J.M. (2002). The maturation of CAH quality assurance (QA) and quality improvement (QI) strategies. In *Rural Hospital Flexibility Program Tracking Project: Year Three Report (covering fiscal year 2001-2002)* (Chapter 3B). Washington, DC: Federal Office of Rural Health Policy. http://www.rupri.org/rhfp-track/year3/Report.pdf.

Moscovice, I. & Stensland, J. (2002). Rural hospitals: Trends, challenges and a future research and policy analysis agenda. *Journal of Rural Health, 18*(S), 197-210.

Stensland, J. & Moscovice, I. (2002). Future financial viability of rural hospitals. *Health Care Financing Review, 23*(4), 175-188.

Stensland, J., Brasure, M., & Moscovice, I. (2002). Why do rural primary care physicians sell their practices? *Journal of Rural Health, 18*(1), 93-108.

2001

Casey M. (2001). State HMO accreditation and external quality review requirements: Implications for HMOs serving rural areas. *Journal of Rural Health*, *17*(1), 40-52.

Casey M., Call, & Klingner, J. (2001). Are rural residents less likely to obtain recommended preventive healthcare services? *American Journal of Preventive Medicine, 21*(3), 182-188.

Yawn, B., Mainous, A., Love, M., & Hueston, W. (2001). Do rural and urban children have comparable asthma care utilization? *Journal of Rural Health, 17*(1), 40-52.

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Edmund S. Muskie School of Public Service
96 Falmouth Street
PO Box 9300
Portland, ME 04101-9300

Telephone (207) 780-4430
TTY (207) 780-5646
FAX (207) 780-4417
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