# A Rural Mental Health Research Agenda: Building on Success by Planning for the Future

**June 9-10, 2003**
**Boulder, Colorado**

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## Meeting Summary

*Meeting Goals and Background*

In June 2003, the Office of Rural Mental Health Research (ORMHR) conducted the workshop, "A Rural Mental Health Research Agenda: Building on Success by Planning for the Future." The workshop included researchers, policy analysts, and consumers who share a commitment to research for improving the delivery of mental health services to diverse populations in rural and frontier areas. Meeting participants identified critical research areas and their potential benefits. Participants noted that rural communities offer self-contained environments that provide unique opportunities to study interventions (both treatment and prevention) and other issues in "real world" settings. This meeting focused on several major areas of inquiry and resulted in specific ideas for future research.

General Themes

Workshop participants noted that encouraging rural mental health researchers to employ a conceptual/theoretical framework would help guide their efforts and advance the field beyond purely descriptive studies. In addition, more precise and quantifiable definitions of "rural" would benefit researchers. Also, better efforts to recruit and mentor rural mental health researchers would stimulate the field. Specific suggestions included:

1. Encourage researchers to employ conceptual and theoretical models in order to advance the rural mental health research field.

2. Conduct a meta-analysis of databases to inform the development of a typology for identifying rural communities at high risk for increased prevalence of mental illness and/or underutilization of mental health services.

3. Commission a "white paper" to examine frameworks and typologies for identifying rural communities at risk for disorders and/or service underutilization. Such typologies could help to (a) categorize epidemiological and services studies and (b) prioritize research.

4. Encourage researchers to study the factors that comprise the typologies.

5. Conduct a four-day "Summer Institute" with senior-level rural mental health investigators and new or emerging investigators to encourage individuals to pursue a rural mental health research career.

6. Recruit senior- and junior-level rural mental health services researchers on the NIMH Services Research Initial Review Group (IRG). Encourage the Scientific Review Administrators to assemble ad hoc review teams with rural expertise.

Suggestions for Specific Research Areas and Topics

More than two decades of research on mental health problems and delivery of care to rural and frontier populations have identified several common themes. The workshop addressed these themes and provided examples of specific questions that have not received adequate attention in the literature.

**1. Methodological Issues**

**a) Define and measure the concept of "rural."** Although typologies have been developed to guide researchers and policy makers, they often fail to capture the relationship between rural/frontier population characteristics that are relevant to mental health service use and outcomes.

Rather than relying on existing definitions of "rural," encourage researchers to include eco-cultural characteristics that operationalize such concepts as "cost of space," i.e., professional and community resources available to persons with mental disorders. Ecology refers to the resources and constraints of a community. This might include rate and level of economic development and availability of economic resources, service use, social support, and social networks, and factors that promote risk and resilience for individuals and families. Culture refers to the beliefs and values that influence community decisions. Research is needed to assess a community's readiness to identify mental health problems, develop appropriate responses, and deliver effective care.

**b) Use appropriate methodologies.** Rural and frontier studies, in particular, often have insufficient sample size and lack the power to use the "community" as an explanatory variable. Community factors (often "nested" within layers of community influence) exert strong influences on rural persons. This presents an important data analytic challenge because a common rural community environment may influence study participants, resulting in interdependent observations that are not adequately controlled for in traditional analytic models.

Encourage researchers to consider promising methodologies that include: (a) multilevel studies that represent individuals within communities and communities within regions or geographic entities; (b) the use of multivariate analysis, including structural equations modeling; and (c) other state-of-the-art methods for analyzing small samples as well as longitudinal data (such as hierarchical linear modeling) that simultaneously estimate between-community and within-community characteristics.

## 2. Epidemiological Issues

**Prevalence studies of mental disorders of rural and frontier populations are needed, especially in children and older adults.** Studies are needed that estimate the prevalence of mental illness in these populations and that assess prevention and treatment services. Available studies suggest no difference in the prevalence of psychiatric disorders for adults in metro and non-metro areas. However, differences in prevalence across different rural communities have not been well studied. Similarly, little is known about differences in disorders for rural and urban children.

Encourage investigators to: (a) conduct a meta-analysis of the epidemiology of mental disorders in rural areas, using existing databases to develop typologies that could identify rural communities at high risk of disorder and underutilization, and (b) inform policy decisions about service provision to high-risk rural communities. For example, are the poor, elderly, children, and racial and ethnic populations in rural communities less likely to enter care than their urban counterparts, controlling for all other variables? Do individuals living in rural communities receive quality of care comparable to that provided to urban residents? If differences are present, are they attributable to the type of care provided by the clinicians, the individual's decision to enter/withdraw from treatment, or to a combination of other factors?

## 3. Demand and Need for Care Issues

**Research is needed to explain and help predict why <u>some</u> individuals recognize the need for mental health care, accept the need, and enter and remain in appropriate treatment.** Existing research in this area is contradictory and inconclusive.

Conduct studies examining the relation of the following factors to the demand for and use of mental health services in rural areas: for example, stigma and confidentiality, perceived accessibility, availability and affordability, perceived communication and cultural sensitivity of providers, and effectiveness of social networks. Studies should identify reliable and valid predictive factors of demand for traditional and alternative mental health services by at-risk individuals in rural communities.

## 4. Socio-Cultural Beliefs About Mental Illness and Their Influence on Disparities in the Use of Services

**Rural communities are increasingly becoming socially, economically, and culturally diverse. It is important to understand the impact of these demographic changes on the access, use, and quality of mental health services.** These issues were discussed in a 2002 meeting organized by ORMHR. A summary of the meeting, *Research on the Impact of Socio-Cultural Factors on Access and Use of Mental Health Services in Rural Populations*, can be found at: http://www.nimh.nih.gov/scientificmeetings/March2002rural.cfm.

Encourage investigators to: (a) identify and study the socio-cultural factors in rural areas that predict demand for, use of, and client commitment to mental health services; (b) analyze the cultural beliefs that providers bring to the clinical encounter and how these beliefs affect clients' decisions to use or continue treatment; and (c) conduct a study of the factors that influence the effectiveness of treatment and preventive interventions

within specific racial or ethnic groups, and the adaptability of successful interventions to other groups and geographical areas.

**5. Access and Quality of Care Issues**

**It is still unknown whether rural-urban differences in access to and quality of mental health care stem from structural and resource differences and/or whether aspects of "rural" life contribute to these differences as well.**

Encourage investigators to address several issues related to this question. Do frontier and rural subpopulations (such as the poor, children, elderly, and racial minorities) have lower use rates than their urban counterparts? Do individuals in these groups perceive that they have less access to and availability of care? Can successful urban service interventions for mental disorders be exported to and successfully implemented in rural communities to enhance access, use, and quality of care? What roles do stigma and ability to maintain confidentiality play in facilitating or inhibiting persons entering and continuing with mental health care?

Also encouraged is research that examines issues related to the challenge of serving persons who are severely mentally ill (SMI) as well as persons with other disorders, particularly when they are discharged from care centers a great distance from their community and where little or no follow-up care is available. For example, what are the contextual supports necessary in rural areas to promote compliance with treatment regimens for persons needing to re-enter the community? What are the barriers to disseminating and adapting evidenced-based care models for those with SMI and other disorders in rural areas? [For further discussion of issues concerning the SMI, see: Research on Community Reintegration for People with Psychiatric Disabilities PA-03-144.]

**6. Suicide in Rural and Frontier Areas**

**Rural areas have higher rates of suicide than urban areas.** Rates vary by region, with Western mountain states having the highest rates in the nation. Some of the factors discussed during the workshop that might affect suicide rates included the psychological, cultural, biological, and genetic makeup of the individual, and access to care provided by mental health specialists. [For further discussion of this issue, see: Research on the Reduction and Prevention of Suicidality: PA-MH-03-120.]

Research is needed to: (a) analyze why rates of suicide are highest in selected rural States and communities; (b) analyze risk and protective factors that explain rural-urban and intra-rural differences in suicide rates; and (c) identify, develop, and test interventions that address modifiable factors related to suicide risk.

**7. Economics of Mental Health Care Issues**

**Mental health plans and service systems differ in urban and rural areas.** Some important differences are that rural populations are less likely to have access to services under managed care and that primary-care physicians are more likely to deliver mental health services in rural than urban areas.

These questions could be linked with the epidemiological studies described above. Does managed mental health care function differently in rural areas compared to urban areas? Do mental health carve-outs differentially affect entry into care or the quality of mental health care in rural areas compared to urban areas? Do rural/urban differences in type of provider, credentialing, selective contracting, and risk sharing moderate the impact of managed mental health services?

**8. Telecommunications in the Diagnosis and Delivery of Mental Health Care Issues**

**Telecommunications technology may offer an opportunity to reduce the many barriers to delivering mental health care to rural and frontier populations and to enhance the quality of this care.** Until there is evidence that services can be effectively delivered via telemedicine, third-party payers are unlikely to adequately reimburse for such services.

Studies are needed to determine whether: (a) individuals with various mental disorders can be as effectively diagnosed and treated via telemedicine versus care delivered face-to-face; (b) some mental disorders are more amenable to diagnosis and treatment by face-to-face versus long distance; (c) the severity of mental disorders influences the effectiveness of long-distance treatment; and (d) services delivered via technology are cost effective.

**9. Primary Care and Mental Health Care Issues**

**The effectiveness of care by non-mental health care specialists in rural areas needs to be determined.** Primary-care physicians, social workers, and psychiatric nurses deliver approximately 80 percent of the care in rural communities. Limited availability of and access to mental health specialists remains a serious problem in many places.

Encourage investigators to consider the following questions. Are providers in rural areas adequately trained to deliver quality mental health care? Are rural mental health providers adequately trained to deliver culturally and linguistically appropriate care to the increasing number of individuals in various racial and ethnic groups living in rural areas? How can we improve the provision of mental health care in primary-care settings? Is quality best defined and measured by treatment guidelines or by client outcomes, or by both?

**10. Juvenile Justice and Mental Health Issues**

**Rural communities are often asked to address the mental health needs of offenders identified through the criminal justice system.** Besides managing the mental health and related issues of offenders entering the juvenile and adult criminal systems, rural and frontier areas need to address the treatment and service needs of offenders returning to their communities following incarceration.

Studies are needed to examine how mental health and related services can best be integrated into the criminal justice system to improve public health and public safety outcomes. Researchers are encouraged to*:* (a) describe the mental health services currently being delivered to offenders with mental illness in rural communities and how this treatment is linked or coordinated with criminal justice requirements; (b) study how

rural organizations or agencies working with offenders can improve coordination to achieve better public health, safety, and individual outcomes; and (c) analyze the role the criminal justice system plays in the delivery and financing of mental health services in rural areas.

**NIMH OFFICE OF RURAL MENTAL HEALTH RESEARCH**

Planning Workshop

June 9-10, 2003, Boulder, Colorado

**Preliminary Agenda**

**June 9, 2003, 8:30 a.m.**

1. Participant Introductions (15 minutes)
2. Overview of Workshop Goals (Marquez and Pollitt)
3. Overview of the Collaborative Discussion and Report Formulation Process (Keller, 5 minutes)
4. Review and Revision of the Agenda (5 minutes)
5. Brief Participant Presentations on Issues That Need Attention (5-10 minutes each, 90 minutes total)
6. **Discussion Issue 1**: Defining and measuring "rural."
7. **Discussion 2:** On whom (which populations) should we focus our research in rural areas? What evidence suggests this need?
8. **Discussion Issue 3**: What research do we need to do for each group identified? What significant gains would be associated with successful research with this focus?
9. **Discussion Issue 4**: Where in the cycle (e.g., prevention, intervention) do we want to focus research efforts?

**June 10, 2003, 8:30 a.m.**

10. Building Consensus for Final Recommendations
11. Collaboratively Formulating Our Report
12. Adjournment: 1:30 p.m.

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