Assessment of the Mental Health Funding Marketplace in Urban vs. Rural Settings

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SUMMARY REPORT

Introduction: Data from the National Comorbidity Survey Replication show that rural individuals with mental health (MH) problems are significantly less likely to receive mental health services than individuals in urban and suburban areas. It is generally believed that low rates of mental health service utilization in rural areas are due to an inadequate supply of mental health specialists. Inadequate incentives to practice in rural areas may be one reason for observed shortages of MH specialists. Changes in reimbursement for MH services in rural areas could likely provide the incentives necessary to increase the supply of MH specialists. Interventions designed to improve rates of mental health treatment, such as collaborative care models, are usually based on private payers, such as managed care organizations which are less likely to operate in rural areas. If the payment system is to be reorganized to provide the necessary financial incentives for MH Specialists to practice in rural areas, it is first necessary to understand how these services are currently paid for in rural areas and how this differs from payment sources in urban areas.

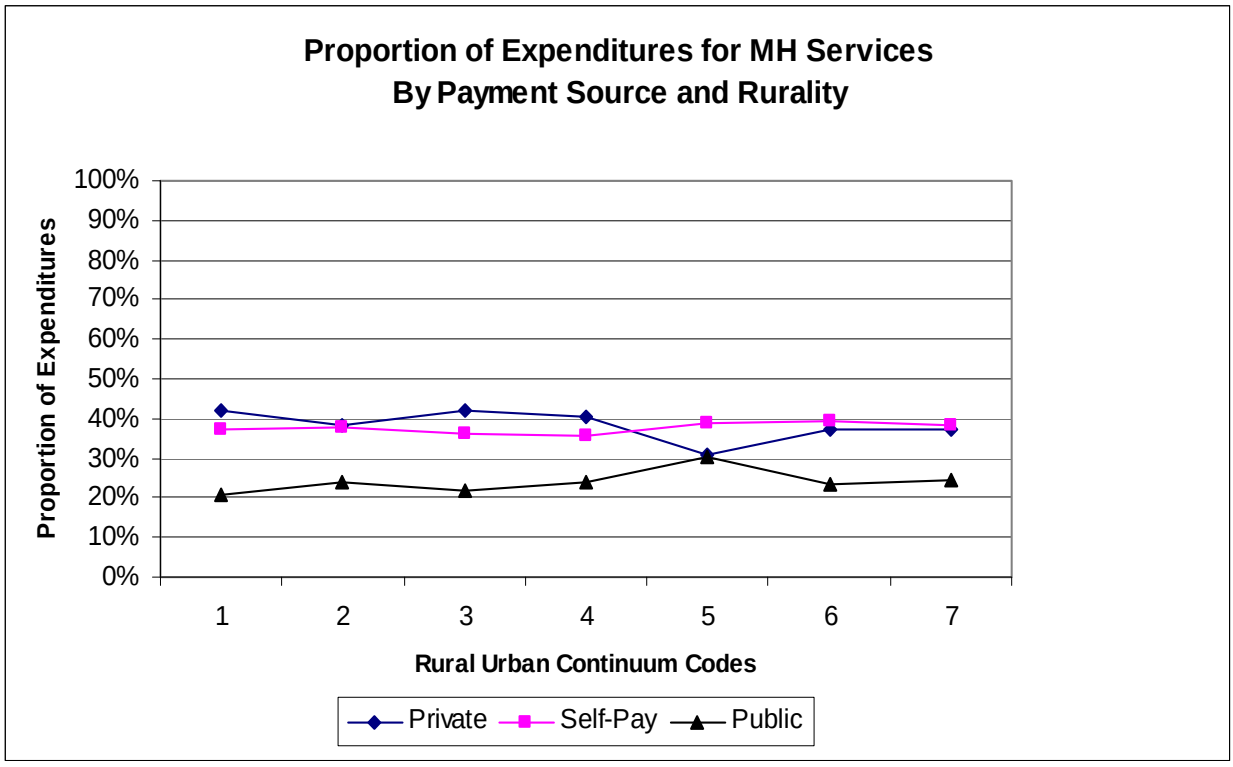
The aims of this study were to:

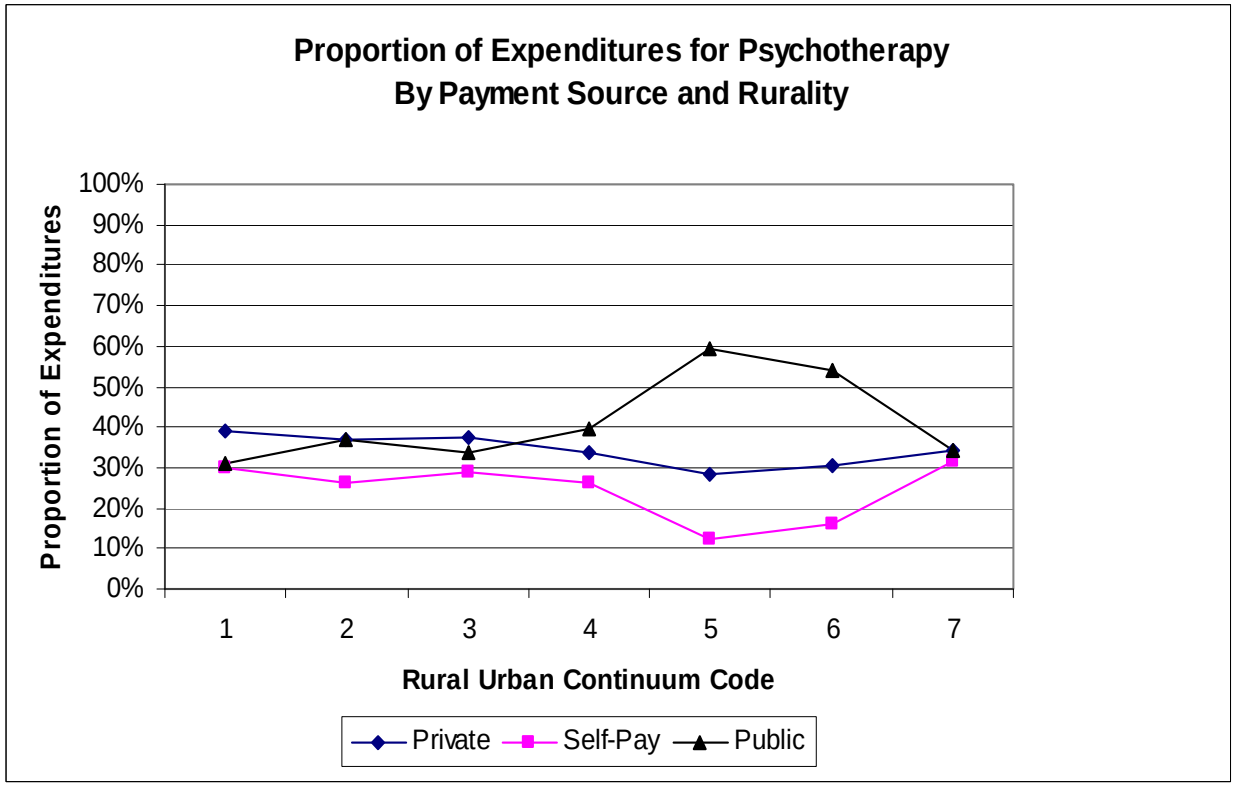
- Assess the impact of rurality on the source of payment for MH treatments
- Determine whether urban-rural differences in source of payment vary for the seriously mentally ill relative to all other mental health conditions.

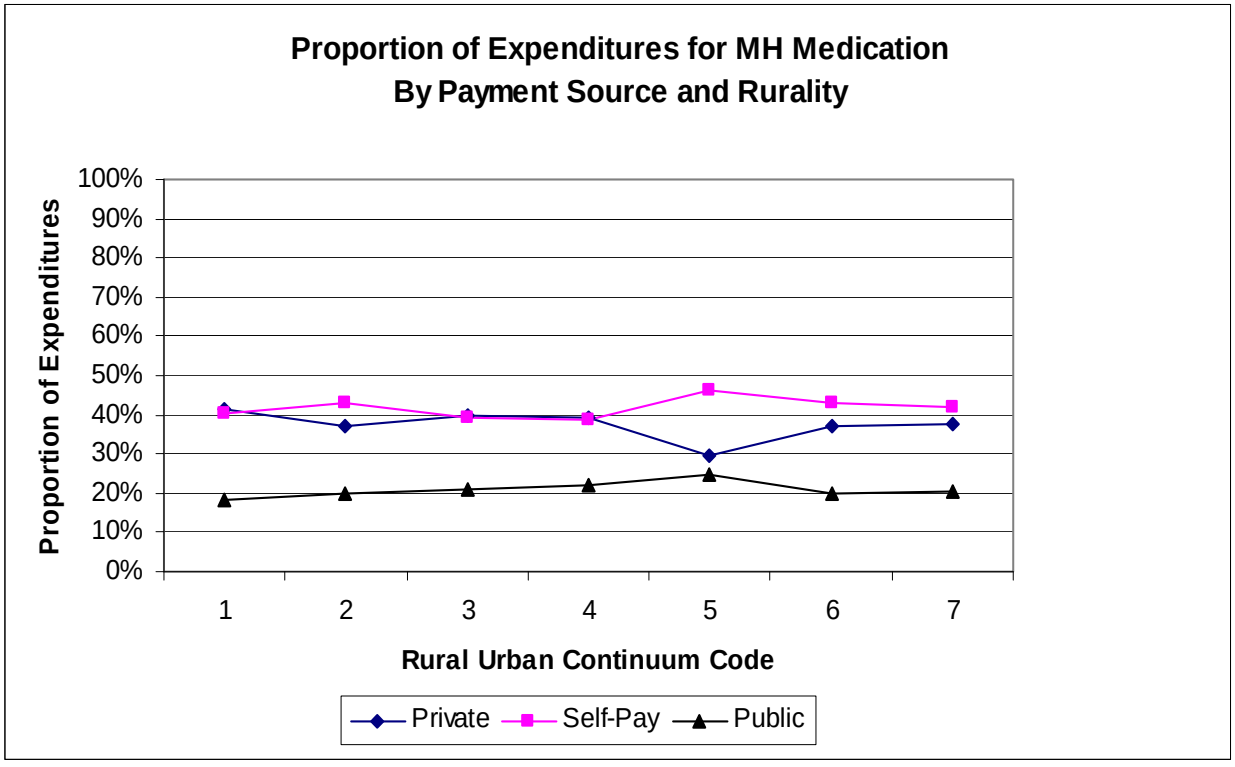
Data and Methods: Data are from the 2004 Medical Expenditure Panel Survey (MEPS), a nationally representative survey sponsored by the Agency for Healthcare Research and Quality. MEPS contains detailed information on health care utilization and expenditures on individuals living in households in the United States. MEPS respondents are followed over a two-year period and interviewed every four months. The sample was limited to all individuals with a self-reported mental health condition, identified by ICD-9 codes of 290.xx-314.xx (N=5,174). Respondents were further categorized as seriously mentally ill (SMI) if identified as having schizophrenia, bipolar disorder, or major depression vs. non-SMI (all other mental health conditions). Total annual expenditures for mental health services were calculated by payment type and rurality. Payment type was defined as Private Insurance, Public Insurance (Medicaid/SCHIP, Medicare), or Self-Pay. Rurality was defined using Metropolitan Statistical Areas (MSA) and Rural-Urban Continuum Codes (RUCC) with 1 being the most urban and 9 being the most rural. Because of sample size issues, we combined categories 7, 8, and 9 into a single category representing the most rural group among the continuum. The difference in the proportion of expenditures for mental health services by payment type across RUCC categories were compared in bivariate and multivariate analyses. Differences in payment source across RUCC categories was also compared for individuals with SMI vs. non-SMI. All analyses were conducted using the survey procedures of Stata using the weights provided by AHRQ to allow results to be nationally-representative and to calculate standard errors that account for the complex sampling design of MEPS.

Results: 42% of expenditures for MH services were paid for by private insurance in the most urban areas (RUCC=1) compared to 37% in the most rural areas (RUCC=7,8, or 9). 21% of expenditures were paid for by public sources in the most urban areas compared to 25% in the most rural areas. 37% or expenditures for MH services were paid for by self-pay in the

most urban areas compared to 38% in the most rural areas. Statistically significant differences in the proportion of MH services paid for by private insurance (p=.032) and by public insurance (p=.033) by RUCC were found in the multivariate analyses, with no significant difference in the proportion paid by self-pay (p=.682). As rurality increases, the proportion of MH services paid for by public insurance sources increased. This relationship held when only examining funding for medication and funding for psychotherapy. Among the SMI population, a larger proportion of expenditures were paid by self-pay in rural compared to urban areas (37% vs. 28%), while a smaller proportion was paid for by both private insurance (22% vs. 25%) and public insurance (41% vs. 47%). The impact of rurality on the funding marketplace for mental health services differed for individuals with SMI and individuals with other mental health conditions. Although individuals with SMI had a greater percentage of funding from public sources than non-SMI, rurality was associated with more reliance on out-of-pocket payments for funding and slightly smaller reliance on public and private insurance sources than individuals with non-SMI mental health conditions.



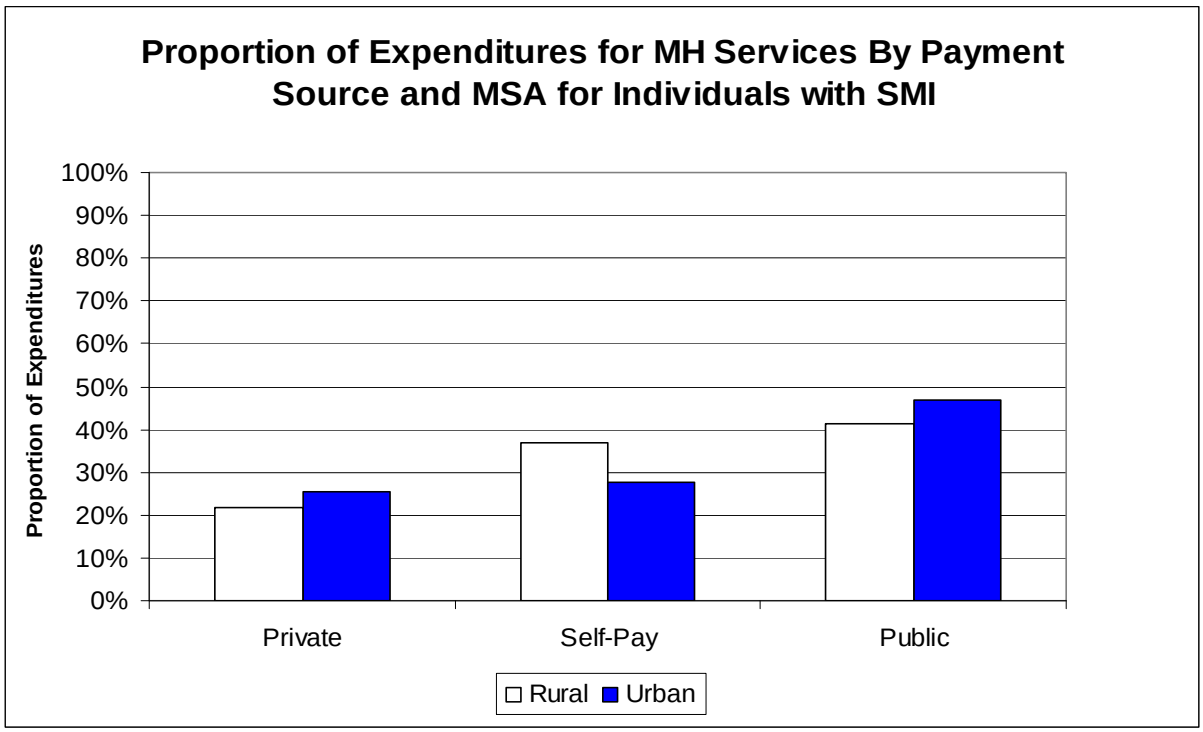

Proportion of Expenditures for Psychotherapy
By Payment Source and Rurality
Proportion of Expenditures
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
1
2
3
4
5
6
7
Rural Urban Continuum Code
Private
Self-Pay
Public


Proportion of Expenditures for MH Medication
By Payment Source and Rurality
Proportion of Expenditures
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
1
2
3
4
5
6
7
Rural Urban Continuum Code
Private
Self-Pay
Public

Multivariate Association of Rural Urban Continuum Codes with Proportion of Expenditures Paid by Funding Source

	Private Insurance	Public Insurance	Self-Pay
	Odds Ratio	**Odds Ratio**	**Odds Ratio**
All MH Services and Medications			
RUCC	O.956**	1.052**	1.008
Medications			
RUCC	0.956*	1.048*	1.003
Psychotherapy			
RUCC	0.983	1.123**	0.913

* p<.10, ** p<.05; Multivariate analyses control for race, ethnicity, age, gender, marital status, education level, income, perceived health status, perceived mental health status, and physical and mental components of SF-12.



Conclusions: Individuals living in rural areas are more likely to have their mental health services paid for by public insurance and less likely by private insurance than individuals living in more urban areas. Individuals with SMI living in rural areas also are more likely to have their mental health services paid by public insurance but were also more likely to pay out-of-pocket than individuals with SMI living in urban areas. Approaches to providing financial incentives and insurance-based programs to improve access to mental health care need to be tailored specifically for rural vs. urban settings.