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# Health Care Reform and Rural Mental Health: Severe Mental Illness

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**ABSTRACT:** Service needs of rural severely mentally ill and strengths of rural communities are addressed. Health care reform policy development at present appears to neglect the seriously mentally ill in general and rural services specifically. Examples of strategies to meet the needs for health care, psychiatric treatment, psychosocial rehabilitation and appropriate housing are described. The advantages and drawbacks of such efforts are considered.

## *INTRODUCTION*

The severely mentally ill require interconnected and comprehensive services to enable them to function with some semblance of quality of life in communities. Since deinstitutionalization, the patterns of service delivery to the severely mentally ill have progressed in fits and starts to begin to meet some of the comprehensive needs. Focusing on health care reform as it relates to rural mental health service provision in the South, this paper examines service delivery issues associated with seriously mentally ill residing in rural communities, identi-

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fies strategies which have been proposed to better meet rural mental health care needs, and weighs the positives and negatives associated with the strategies.

## *SEVERE MENTAL ILLNESS*

Our current understanding of the neuropsychiatric processes of the major mental disorders has eclipsed the more limited perspectives of two decades ago. Much is being learned about the neurological foundations of these diseases such that schizophrenia is no longer considered a specific disorder, but a clinical syndrome (Carpenter & Kilpatrick, 1988; Carpenter, 1987; McHugh & Slavney, 1983), whose manifestations range from loss of cognitive function to a hyperactivity of neurocortical processes leading to cognitive distortions and dysfunctions. Similarly, major mood disorders are also now being considered in terms of neurochemical excesses and deficits. These new perspectives on major mental illnesses are producing dramatic advances in the pharmaceutical treatment of severe mental illnesses. Each pharmaceutical advance potentially leads to the restoration of certain cognitive functions and consequent improvement in the outlook for improved functioning of those with severe mental illnesses. However, each new therapeutic advance also further complicates the picture by elucidating even more aspects of syndromes, such that effective treatment will remain a challenge for the near future.

Severe mental illness, regardless of cause, leads to various deficits in ability to carry out activities of living which frequently prevent victims from caring adequately for themselves and interferes with coherent social interactions. Such functional deficits impede social relationships, vocational abilities, recreational opportunities and the ability to access and maintain housing and adequate health care. Specifically, the schizophrenias impact cognitive function, and are characterized by social withdrawal and limitations in understanding and managing environmental stimuli. The major depression and bipolar mood spectra similarly limit the capacity to adapt to and manage the demands of daily living. Specifically, these illnesses are characterized by a range of dysfunction from extreme depression to manic psychotic episodes. With these functional disabilities, systems of comprehensive care are necessary to support the severely mentally ill to maintain functional ability, to encourage the restoration of lost abilities, and to ensure adequate maintenance of the individual in terms of healthcare, social and housing needs.

The constellation of impairments and deficits of the seriously mentally ill challenge mental health service systems, both urban and rural. However, rural environments have consistently been identified as having limited capabilities to comprehensively care for the seriously mentally ill. Health care reform, in attempting to address the needs of the severely mentally ill, must ensure that the capacities for rural mental health care are further developed to enhance the delivery of comprehensive care to the rural living seriously mentally ill.

## *PROBLEMS OF COMMUNITY CARE IN THE RURAL SOUTH*

Groups at greater risk for mental disorder, the chronically ill, the poor, and the dependent, are disproportionately represented in rural areas (Human & Wasem, 1991). In examining rural demographic data, one finds that over one half of the rural poor under age 65 live in the South, over 43% of the nation's elderly live in the South and 95% of rural minority elderly live in this region. Ninety-one percent of rural African American households are in the South. Seventy six-percent of all rural households live in substandard housing. Forty-seven percent of all rural African American households are poor (Health Care in Rural America, 1989). Thus, the rural south has a disproportionate number of minority and impoverished citizens for whom any health care reform strategies must be tailored.

The current rural mental health service system is described as fragmented, costly, and ineffective (Aviram, 1990; Bachrach, 1983; Carter, 1986; Human & Wasem, 1991; Leighton, 1990). Poverty, limited economic opportunities, inadequate transportation, communications infrastructure, and housing, limit the ability of rural mental health service systems to provide comprehensive services. Fluctuations in rural economies also impact the health of rural residents and the ability of rural communities to provide services. The service base is frequently supported by property taxes and a depreciation in the value of land reduces the tax base and consequently reduces service capability (Human & Wasem, 1991). Thus, rural areas are limited in services delivery capacity and are at greater risk for further reductions due to fluctuations in the economic base.

The process of deinstitutionalizing the seriously mentally ill continues in the southern states. Depending on where psychiatric institutions are located, the seriously mentally ill can be displaced from their original localities. When facilities are located in an urban setting, rural inpatients are frequently discharged to the urban area where most

services are located. Conversely, when facilities are located in rural areas, downsizing can be impeded by inadequate housing and services in urban areas. In Virginia, this is exemplified by one state facility which serves a broad catchment area and is located in a rural area, yet over half of the inpatients are from an urban region of the state. Many of the urban inpatients are discharged to rural areas, even further displacing them from their urban origins. Frequently, urban inpatients remain hospitalized for extended periods due to the lack of housing and appropriate services in the urban areas from which they came.

Clearly, increases in community-based services are needed in both rural and urban areas. However, the ability of many southern states to provide adequate services is limited by fiscal constraints. Per capita state mental health agency expenditures devoted to community based services in fiscal 1990 fall below the all state median ($20 per capita) in 10 out of the 13 southern states (NASMHPD, 1990).

Service quality and effectiveness in rural areas are also impacted by the presence and expertise of mental health providers. In the midwest between 1981 and 1988, there was a significant decrease in full-time-equivalent (FTE) mental health provider positions in non-metropolitan agencies in comparison to metropolitan agencies (Stuve, Beeson, Hartig, 1989). This change resulted from both a reduction of FTE positions in non-metropolitan areas and from increases in FTE positions in metropolitan areas. The loss of positions in rural areas signifies an impending crisis in effectively responding to the needs of rural residents.

A related issue is the limited amount of case management services provided to rural residents through public mental health systems. An examination of case management services being delivered in the northwestern quadrant of Virginia indicates that less than 30 minutes per month of case management services is being delivered to severely mentally ill clients (VaDMHMRSAS, 1991). Although, in some instances, these services are enhanced by vocational rehabilitation and club house programs, only 8 of 40 CMH services systems met the staff-client ratio criterion of 1:25 and some clinics' ratios exceeded 1:250 (VaDMHMRSAS, 1992). Thus, there are just not enough case managers to adequately serve the severely mentally ill population. While a few more progressive states such as Wisconsin report a total staff-client ratio of less than 1:25 (Hollingsworth, Pitts, & McKee, 1993), it is unlikely that staffing ratios in other southern states differ substantially from the Virginia figures.

The situation for case management in rural Virginia is that there are insufficient numbers of providers, those providers who do exist are usually prepared at the bachelor's level or below. The numbers of ser-

vice providers who have post-baccalaureate education are even more inadequate. The expertise of the more extensively prepared providers is also of concern, since these practitioners have seldom received training in the care of the severely mentally ill in the traditional disciplines, not to mention the issue of training in serving rural clients.

A frequently overlooked area of need for the seriously mentally ill is physical health care. Many health risks among psychiatric populations have been identified, though not specific to rural populations. Among persons with serious mental illness, the frequency of physical health problems is reported to be 50% to 90% higher than among general psychiatric outpatients. The majority of medical conditions experienced by the severely mentally ill do not receive adequate follow-up (Barnes, Mason, Greer & Ray, 1983; Farmer, 1987; Roca, Breakey & Fischer, 1987). One study reported that 42% of long-term psychiatric patients had at least one medical problem that limited functional ability (McCarrick, Manderscheid, Bertolucci, Goldman, & Tessler, 1986). Higher mortality rates for the institutionalized seriously mentally ill have long been documented. More recent studies of this population after discharge have found mortality rates from natural causes to range from 1.5 to 4 times that of the general population (Allebeck & Wistedt, 1986; Black, Warrack, & Winokur, 1985; Martin, Cloninger, Guze & Clayton, 1985a, 1985b). Mortality from circulatory, respiratory, digestive and genito-urinary diseases have also been reported as greater than expected in schizophrenic populations (Newman & Bland, 1991).

Rural disadvantaged individuals and minorities, seek care later, participate less in prevention and support activities, and attempt to meet health care needs through non-professional systems and family (Health Care in Rural America, 1989; Cheung & Snowden, 1990; Smith-Ruiz, 1985; Hines & Boyd-Franklin, 1982). The problems of rural service delivery to African American individuals requiring physical or mental health care are overwhelming. In the southeastern United States these problems are even more profound because of: 1) acute under-representation of minorities among health professionals delivering care in the rural southeast; 2) remnants of separatism and a caste mortality which significantly influence social interaction, access to resources, and community response to resident needs (Modlinski, 1989). Most rural disadvantaged African Americans residing in the southeast depend on public health and mental health agencies for mental health care (Jones & Parlour, 1985). In Virginia, African Americans have a higher admission and readmission rate to state psychiatric facilities than Caucasians, and level of poverty is significantly

correlated with admission to state facilities. Thirty-seven percent of admissions to state hospitals are African American, while the African American population in the state makes up a total of 18% of Virginia's residents. Rural residents are more likely to be hospitalized in state hospitals than private hospitals (Wan & Ozcan, 1991). Unfortunately, while these residents are at high risk for physical, emotional and social disability (Lazare, Leonard, & Kravitz, 1989) and experience relatively high rates of chronic disease, physical and economic barriers frequently inhibit access to medical and mental health services (Krout, 1986; Health Care in Rural America, 1989).

While increasing references to the crises in health care in rural America are readily available, there is less evidence of critical consideration of regional, economic, geographic, social and cultural differences in rural populations and their needs for mental health services (Bachrach, 1983). The paucity of investigations related to mental health care for rural minority populations suggests the need to comprehensively explore the essential variables necessary for the development of effective mental health care delivery systems to rural disadvantaged populations.

## *STRENGTHS OF RURAL COMMUNITIES*

Issues surrounding mental health services in rural areas are typically described in a deficit-based framework much as we have demonstrated above. The view of rural America by urbanites and suburbanites seems to be one of incredulity. One seems to know that good mental health care could not possibly be delivered under such primitive conditions as isolation, provincialism, social immaturity and the absence of 'specialty care' professionals. Research and first hand accounts over the past three decades have repeatedly confirmed the challenges faced by rural communities and their mentally ill residents. From a purely descriptive perspective much has been written about the serene, value-based, family-oriented nature of rural communities. Little has been written, however, about how the natural strengths of rural communities can compensate for barriers to mental health care. Studies of how natural strengths of rural communities affect psychiatric morbidity are also noticeably absent.

Rural communities are not homogeneous (Murray & Keller, 1991; Bachrach, 1985). Despite regional and socio-cultural differences among rural communities there are a number of generalizations that can be made about rural culture. Rural communities typically have a strong

allegiance to family, church and community. This allegiance results in a higher degree of tolerance for the abnormal among members of the community (Wodarski, 1983), willingness to extend oneself as a 'lay' helper (Bachrach, 1983; Hill, 1985; D'Augelli, 1982) and commitment to 'traditional' values. Collectively referred to as 'gemeinschaft characteristics', though often discounted as being largely 'romantic idealizations' (Murray & Keller, 1991), these rural strengths can play an integral role in the delivery of mental health care. The existence of natural supports (e.g., lay helpers, indigenous service extenders) is perhaps the greatest strength in the rural community. While the importance of natural supports is recognized, not enough has been done to formally integrate them as a resource in the systems of care.

Heterogeneity among rural communities produces differences in the nature and type of natural supports. Depending upon the rural culture, the role of the indigenous care extender may range from that of companion/aide to confidant/therapist to medicine man/shaman (Hill, 1985; D'Augelli, 1982). Notwithstanding the differences among the roles of these supports, outsiders cannot underestimate the value that they play within each rural community and the extent to which community members recognize and accept this role. Although D'Augelli cautions against institutionalizing the role of natural helpers, there seems to be no question that much potential exists among the natural supports in a rural community to complement professional mental health service providers or to serve as a communication "bridge" between the patient and the professional (Kelley & Kelley, 1985; Bachrach, 1983; Hargrove, 1982).

Medical labels associated with mental illness are notable barriers to the acceptance of the mental illness in rural communities and provide the basis of stigma (Neff & Husaini, 1985). Paradoxically, tolerance of abnormal behavior is a noted strength in rural communities (Neff & Husaini; Bachrach, 1983; Flaskerud, 1983). Religious principles, an underpinning of rural culture, are the backdrop for tolerance and provide both an explanation for abnormal behavior and a reason for optimism. Stigma typically increases the sense of isolation and misunderstanding in the mentally ill. Such isolation coupled with the characteristic geographic isolation of rural communities could increase psychiatric morbidity. Tolerance of the abnormal, however, clearly balances the negative effects of mental illness, geographic isolation and other deficit-based characteristics of rural communities. Any health care reform efforts should build on the strengths of rural inhabitants to ensure enhancement of existing resources and acceptance of innovative programs.

## *STRATEGIES FOR PROBLEMS IN RURAL SERVICE DELIVERY*

Though a great flurry of policy proposals are being developed in the interest of health care reform, a curious inattention is being paid to the mentally ill. Under the most current proposals, mental illness coverage will remain outside the realm of health care reform until after the year 2,000. It seems short-sighted for policy-makers to delay coverage for mental illnesses, since if change is to come, larger integrated groups of providers would be better able to develop Accountable Health Plans. The Jackson Hole Group (1993) advocates cooperation among service providers in rural areas rather than competition. Their recommendations involve financial (competitive reimbursement, direct income and capital subsidies, loan relief) and indirect incentives (membership in regional networks, telemedicine capabilities, facility access), to attract physicians and physicians assistants. The subsequent expansion of primary care networks is proposed to attract more allied health professionals. It may be necessary to apply similar development and recruitment strategies to attract allied and mental health providers.

Developing health care reform policy proposals have discussed the impact of managed care medical services in rural areas, but generally fail to deal with psychiatric care. The Little Rock Working Group has made recommendations regarding mental disorders in health care reform (Smith & Burns, 1993); comprehensive provision of health and mental health care in rural areas is beyond the scope of the current discussion. The complexity of designing service systems for the severely mentally ill is well acknowledged (Mechanic, 1991). Strategies are being developed and implemented which may have general utility for service provision to the rural severely mentally ill under health care reform. The following sections will describe these efforts and critique their potential for widespread adoption.

## *INTEGRATING THE HEALTH AND MENTAL HEALTH SERVICE SYSTEM*

One strategy which has implications for improving rural service to the severely mentally ill is the integration of health and mental health service systems. An integrated service system would seem especially beneficial given the physical health risks of severe mental illness identified above.

It has been reported that psychosocial intervention programs increase the utilization of medical services by participants. Presumably this increase is due to the trusting relationships between staff and clients which promote disclosure of physical health needs, an increased emphasis on health teaching, and staff encouragement of clients to seek appropriate treatment when needs are identified (Worley, Drago, & Hadley, 1990). However, even the most progressive community mental health centers tend to overlook the physical needs of the severely mentally ill. In Oregon, only 19% of the CMHC's had policies regarding physical health care for clients, only 31% of clients receiving psychotropic drugs received medical evaluations, and examinations were most commonly performed by primary care physicians not affiliated with the CMHC. Much resistance was encountered when CMHC's had to allocate limited funds to purchase other medical services (Faulkner, Bloom, Bray, & Maricle, 1987).

By joining mental health and primary care in rural areas, clients would be able to access basic services in one location. Such a collaborative effort would result in improved early identification of problems, producing better case finding and timely intervention. Likewise, the physical health of the severely mentally ill could be better monitored and services provided with a consequent reduction in morbidity and mortality. Continuity of comprehensive care could be more readily available. The combination of primary care and mental health services would seem to more actively promote cooperation.

There are, however, some issues which need consideration before the combination of mental health and primary care services is promoted. First and foremost is the widely documented manpower shortage in rural areas for both types of providers (Beeson, 1990; Beeson, 1993). Efforts are being initiated in some states to promote the preparation of primary care physicians and attract them to rural practice. However, though Mechanic (1990) has argued that primary care physicians are not an adequate substitute for specialty mental health care, there is little activity in this vein to attract mental health providers.

A second issue deserving consideration is the acknowledged problems associated with multidisciplinary collaboration. Neither medical nor mental health disciplines have experience in truly collaborative models of care. Bringing disparate disciplines together for collaborative practice will require concerted efforts at team building, and development of group communication and problem solving skills. Such professional development should begin during the educational phase and be carried through to practice. This kind of training is presently

needed in urban and rural settings, but will be integral to forming functional collaborative practices in rural areas.

Another issue deserving consideration is the probability that medical needs and emergencies will eclipse less dramatic mental health needs, leading to fewer resources being allocated to mental health service over time. This is not so much a threat when adequate financial subsidies are present. However in periods of fiscal constraint, mental health services historically have been cut before medical services (Beeson, 1993). Inattention to the psychiatric needs of the severely mentally ill can actually impede successful medical outcomes leading to increased emergency room usage (Hoeper, Nyez, Regier, Goldberg, Jackson, & Hankin, 1980), extended lengths of stay and improper bed utilization. Thus, the seriously mentally ill, though at risk for serious health problems, may be at further risk for inadequate treatment in combined health/mental health settings unless adequate planning and support for relevant and appropriate services are insured.

## *ASSERTIVE COMMUNITY TREATMENT*

Assertive community treatment has been demonstrated to be an effective strategy for serving the seriously mentally ill (Stein & Test, 1985; Stein & Test 1980; Torrey, 1986; Hoult, Rosen & Reynolds, 1984; Bond, Miller, Krumwied, & Ward, 1988; Bond, Witheridge, Dincin, Wasmer, Webb, & DeGraaf-Kaser, 1990; Bush, Langford, Rosen, & Gott, 1990; Olfson, 1990; Mechanic, 1991). Model programs consist of multidisciplinary teams which provide continuous care to a limited number of severely mentally ill (appx. 1:10 staff/client ratio).

Variations of PACT have been implemented in primarily urban and semi-urban settings. Such programs promote the maintenance of clients in the least restrictive environments and actively engage the client's social network. Decreases in number of hospitalizations, length of stay, and emergency room use have been reported. Improved medication compliance, community housing maintenance, and satisfaction with services by clients have been documented. Cost savings are predominately associated with decreased hospitalization and length of stay (Dincin et al., 1993). With all of these assets accruing, it remains unclear as to why so few rural mental health clinics have implemented PACT (Mechanic, 1990).

A rural application of this program has been conducted with apparent success, and an expanded experimental program is being implemented in South Carolina (Santos, Deci, Lachance, Dias, Sloop, Hiers,

& Bevilacqua, 1993). Assertive community treatment programs have the potential to significantly improve the care of the rural seriously mentally ill. However, those factors which presently impede the provision of mental health services in rural areas, will also need to be addressed in implementing rural PACT programs.

## *UTILIZATION OF LAY AND INFORMAL CAREGIVERS*

The nature of rural life, self-reliance, and strong allegiance to family and church, serve as a framework for the communities' response to a rural individual's need. Use of and reliance upon informal caregivers in rural communities has been recognized in the literature for many years. The President's Panel on Rural Mental Health in 1978 advised that the importance of lay caregivers should not be underestimated; and subsequently, an increasing number of professionals have documented their experiences with informal networks of care providers.

We briefly discussed lay caregivers in the context of rural community strengths. Lay or informal caregiving is a broad concept which encompasses several different "models". On one end of a continuum, families provide 24 hour 'residential support' and 'case management' to severely mentally ill family members. Clergy also provide counseling/guidance to the mentally ill and provide or coordinate residential support or respite services for the mentally ill and their families. Indigenous caregivers are paraprofessional or nonprofessionals who provide a variety of health-related care and support services. The continuum of caregivers forms an extremely valuable "informal caregiving network" that supplements and complements the work of traditional systems of mental health care.

There are numerous benefits of an informal network of caregivers. Salber (1979) described the informal network as an opportunity to 'plug in' to the natural systems of rural people while Hill (1985) recognized that lay caregiving networks can strengthen professional ties to the community. Families are an existing resource in the care of the severely mentally ill. Lamb (1983) identified families as the primary caregivers since the beginning of deinstitutionalization. The day-to-day interaction between the mentally ill family member and caregiving family members offers a resource to mental health professionals in such integral areas as medication compliance, behavior management, and monitoring of symptoms of relapse. Herz and Melville (1980) and Hogarty (1979) describe the inevitable rates of relapse among the severely mentally ill and the degree to which family caregivers can provide early warnings of decompensation.

Tolerance of abnormal behaviors has been identified as a strength in rural communities. An informal network of caregivers typically approaches care of the mentally ill from a non-medical perspective (Hill, 1985). This perspective may be perceived by some as denial; but, in reality it is an effective method of reducing the stigma of mental illness. Acceptance of typical behaviors in a non-judgmental manner reinforces the bond between the lay caregiver and the individual with mental illness. This acceptance and tolerance also contributes to feelings of 'connectedness', decreasing the sense of isolation and misunderstanding frequently experienced by individuals with mental illness.

D'Augelli (1982) cautions that the mental health system risks "urbanizing" indigenous caregivers and other natural supports by formalizing their role through employment. D'Augelli's concern of more than a decade ago, however, does not seem to have tempered support for using paid indigenous caregivers. Use of and reliance upon lay caregivers as an adjunct to more formal systems of care have a number of issues which must be addressed to ensure optimal utility. The informality of natural support systems establishes an opportunity for lapses in practices of confidentiality. Individual, family and community boundaries may be blurred in a paradoxical environment which seeks to both protect the privacy of an individual and offer a caring supportive "neighborhood". Professional ethics standards adopted by psychiatrists, psychologists social workers and nurses are all at risk when these professionals embrace lay caregivers as a part of the service delivery system. The absence of standards of ethics in relation to confidentiality among lay care givers leaves practice violations without sanction.

While lay caregivers offer resource enhancement to the care of the mentally ill and offer mental health professionals an understanding of local custom (Hill, 1985) one cannot forget that, generally, lay caregivers have not received training in the care of the mentally ill. The imposition of formality to a system which is inherently informal places mental health providers, consumers and their supports at risk for relying on a defacto delivery system that cannot provide essential skilled services.

## *RURAL ADULT HOMES*

It is estimated that as many as 40% of individuals with mental illness live in adult homes (Board and Care, 1989). Though a rural breakdown of this estimate is not available, community housing for the seriously

mentally ill in rural areas is often provided by adult homes (also referred to as board and care homes, boarding homes, and congregate care facilities). Perspectives on rural adult homes can only be extrapolated from an inadequate literature (Lieberman, 1992; Carling, 1993) on adult homes in general. Adult homes are characterized as residences run by a proprietor unrelated to the residents, providing shelter, meals and 24 hour on-site supervision focusing on maintenance of current functioning through assistance with personal hygiene, tasks of daily living, financial management, and medication prescribed for self-administration (Arce & Vergare, 1985).

Adult homes theoretically offer a less restrictive environment than institutions and nursing homes for those unable to live independently. Small homes can offer low stress environments (Nagy, Fisher, & Tessler, 1988) which are a better fit for persons with schizophrenia (Lamb & Goertzel, 1972) and can encourage maintenance of independent living skills. The cost of this type of residential care is lower than institutionalized settings. Quality of life is rated higher by residents of adult homes than those in psychiatric institutions (Lehman, Possidente, & Hawker, 1986).

In New Mexico, deinstitutionalization of the seriously mentally ill resulted in an increase in adult homes, where former employees of the state hospital took discharged patients into their own homes, thus maintaining a source of income in a low socioeconomic area. The state hospital and community mental health center in Las Vegas, New Mexico provide mental health, crises intervention, and support services to the adult homes via a visiting psychiatrist and nurse team, and crisis intervention. Such a model appears to meet both the needs of the mentally ill, the economic needs of the community, and provides a loosely integrated system of mental health services in an economically impoverished rural area.

Unfortunately, it is not clear that most states provide reliable mental health services to adult homes. In fact, the adult home industry has been criticized as being poorly regulated, subject to inadequate reimbursement mechanisms, and ignored by mental health service providers. These circumstances lead adult homes to accept inappropriate placements of individuals who would be better served in more structured, therapeutic and, therefore, more costly environments (Lieberman, 1992). In fact, Colorado has documented that the majority of the seriously mentally ill in one system were inappropriately placed (Shern, Wilson, Ellis, Bartsch, & Coen, 1986), primarily due to the unavailability of structured therapeutic community residences. Where more structured community facilities exist, they have been

found to exhibit homelike environments, supportive staff and skill-building programs (Mowbray, Greenfield, Freddolino, 1992).

A number of facility characteristics have been identified as promoting the community adjustment of the severely mentally ill residing in adult homes. The most critical factor has been found to be the size of the residence (Hull & Thompson, 1981; Nagy et al., 1988; Lehman, Slaughter, & Myers, 1991). Smaller nonprofit homes promote engagement in more functional activities than larger for-profit homes, a finding even more pronounced for residents with poorer social functioning. Cost of care was also found to be directly associated with more functional activity by residents (Nagy et al., 1988). In examining the continuum from state psychiatric facility to independent apartment living, Lehman et al. (1991) found satisfaction with living situation, personal safety, and health status to vary directly with size and restrictiveness of the environment. However, size was not found predictive of satisfaction with family involvement, leisure activities, social relations, and minor safety concerns.

A comparison of adult homes for developmentally versus mentally disabled individuals found homes for developmentally disabled to be superior in various aspects including staffing levels, services, physical environment, staff training, and fire and safety precautions (Wilson & Kouzi, 1990). These differences were attributed primarily to higher fees for service to the developmentally disabled in primarily non-profit homes. Allowable funding rates for the developmentally disabled are generally higher than for the mentally ill (Blaustein & Viek, 1987).

Regardless of the limitations of adult homes, this residential setting is by far preferred by the mentally disabled over inpatient treatment settings (Lehman et al., 1991; Mowbray et al., 1992; Massey & Wu, 1993). Although family members and clinicians are more likely to prefer more structured community placements (Grosser & Vine, 1991; Massey & Wu, 1992; Rogers, Danley, Anthony, Martin, & Walsh, 1994), such settings are less available than adult homes and may be more difficult to establish in rural areas due to lack of appropriate funding and personnel. However, broadening the range of residential alternatives for the seriously mentally ill from structured therapeutic settings to independent housing is needed throughout the mental health service system (Rogers et al., 1994; Pandiani, Edgar, & Pierce 1994; Carling, 1993; Massey & Wu, 1993; Campanelli, Lieberman, & Trujillo; 1983).

## *CONCLUSIONS*

This review of service needs of rural severely mentally ill and strategies to meet these needs was conducted to take into consideration im-

plications for health care reform. Health care reform policy development at present appears to neglect the seriously mentally ill in general and rural services specifically. Sporadic efforts are being made to develop appropriate programs to meet the needs for health care, psychiatric treatment, psychosocial rehabilitation and appropriate housing. However, these efforts are hampered by a limited empirical knowledge base, scarce and unreliable funding sources, and an overall lack of national and local policy promoting systems of integrated services for the seriously mentally ill. Were the needs of rural seriously mentally ill considered a priority, this era of health care reform could serve as a stimulus for developing appropriate policy and funding mechanisms for adequate support and treatment of the seriously mentally ill in rural regions.

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