### THE BEHAVIORAL HEALTH CARE

### **NEEDS OF RURAL WOMEN**

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#### INTRODUCTION

Although women constitute 52% of the rural population (30% of all women in the United States) (Bergland, 1988), their representation in professional psychological literature is almost nonexistent. There is a dearth of research concerning the behavioral health needs of this substantial, but frequently unnoticed population. The research which has been done is usually specific to very limited geographic regions which are not necessarily representative of other rural communities or, when larger samples are employed, demographic information including age, ethnicity, and cultural background are often not provided, further limiting the generalizability of findings. Moreover, many studies have compared rural with urban samples and drawn conclusions even though the operational definitions of rural and urban often differ widely. Rural women are not a homogenous group. They reside in rural areas that are diverse in their geography, economic base, demographics, and development. The midwestern farmlands, western frontier areas, Alaskan villages, West Virginian mountains, Deep South countryside, Island villages, so called "boom towns," and "bust towns" all comprise rural America. While several definitions of rural exist (Bushy, 1993; Coward, Miller & Dwyer, 1990; Sachs, 1996), there are common elements throughout rural life: low population density; geographical distance from large metropolitan areas; isolation; dense social networks; a culture of

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self-sufficiency; and fewer economic and manpower resources. How these characteristics affect the manifestation, prevention, and treatment of the behavioral health care needs of rural women will be explored.

This report attempts to direct attention to this underrepresented group and presents a review of the literature related to the behavioral health care needs of rural women. With this knowledge, psychologists and other health professionals will be able to more effectively plan and deliver services to this population. Additional goals for this report include identifying those questions, which still remain unanswered, and providing recommendations for future research, action, and advocacy related to addressing the needs of this underserved population.

The literature review was confined to the United States rural population, concentrating on research published after 1975. Because so little research has focused exclusively on rural women, it was necessary to look at the secondary analyses reported in studies and the reader is again cautioned to remember that many studies will have only limited generalizability.

This report concentrates on the broad area of behavioral health care needs including, but not limited to, the domain of mental health needs, for several reasons. First, by focusing on behavioral health care needs, a vast array of lifestyle and psychological factors can be addressed. These factors contribute to health and well being as well as to susceptibility to illness and outcome of treatment. As the role of psychologist evolves, these lifestyle factors become increasingly important points for intervention.

Second, the broad sociocultural and lifestyle factors that typify rural life will likely affect physical and mental health in similar ways. For example, geographic barriers, distance, lack of transportation, and inadequate funding affect access to both medical and mental health services. Third, because of the lack of resources in most rural areas, a generalist approach toward

intervention is often the most effective (Hanson, 1991; Whitener, 1996). Lastly, the public heath model for combating physical and mental health problems in rural areas has had a long history of acceptance (Rost, Williams, Wherry & Smith, 1995).

#### OVERVIEW OF RURALITY AND BEHAVIORAL HEALTH ISSUES

The incidence and prevalence rates of most behavioral health disorders are at least as high in rural areas as in urban communities (Philbrick, Connelly, & Wofford, 1996; Wagenfeld, Murray, Mohatt, & DeBruyn, 1994). The Epidemiological Catchment Area Study, which compared rural and urban prevalence rates for a large variety of psychiatric disorders, the urban lifetime prevalence rate was 34%, which was only slightly higher than the 32% rate in rural areas (Robins & Regier, 1991). In a study of rural Tennessee households, women reported higher levels of anxiety and depression than their urban counterparts, coupled with poorer physical, mental, and general health (Beck, Jijon & Edwards, 1996). However, rural America lacks political influence (Danbom, 1995; Dyer, 1997) and, as a consequence, rural mental health services do not figure prominently in mental health policy (Ahr & Holcomb, 1985; Kimmel, 1992).

Stressful life events that are unique to rural environments have been linked to feelings of depression and worthlessness in many rural communities. High levels of stress may be the result of limited access to the resources required to meet both personal and interpersonal needs (Wilkinson, 1984). According to the Surgeon General of the United States (United States Department of Health and Human Services, 1999), rapid social change and widely experienced catastrophes such as the farm crisis of the 1980s which unleashed a period of severe economic hardship in many areas already beset by poverty, adversely affected the mental health of the population (Hargrove & Breazeale, 1993; Ortega, et. al., 1994; Hoyt, O'Donnell, & Mack, 1995). Between 1981 and 1985, 500,000 jobs were lost in rural areas, adding tremendously to unemployment (Bergland, 1988). Many, though not all, rural economies continue to decline

(Hannan, 1998) and pastoral America is no longer a stable or homogeneous environment.

Fifty-three percent of the nation's poor reside in the rural southeast (Rowland & Lyons, 1989) and a disproportionate percentage of the nation's poor live in rural regions across the United States (DeLeon, et al., 1989). More than 800 rural counties have high poverty rates and the majority of impoverished United States counties are located in nonmetropolitan areas (Murray & Keller, 1991). Sixty-seven percent of the nation's substandard housing is in rural areas (DeLeon, et al., 1989).

According to the United States Department of Agriculture (1998), the most current information related to poverty consistently shows higher levels of poverty are in nonmetropolitan communities than in more urban locations. The poverty rate in nonmetropolitan America stood at 15.9% in 1996 (essentially the same as the figure for 1995), which was significantly higher than the poverty rate of 13.2% in metropolitan areas. Moreover, the rate of poverty in nonmetropolitan regions has been quite stable over the last 8 years, only varying within a range of 1.6%. The nonmetropolitan-to-metropolitan poverty gap, currently at 2.7 percentage points, has continued to widen (United States Department of Agriculture, 1998).

Nonmetropolitan poverty rates continued to be higher than those in metropolitan regions across many demographic groups (United States Department of Agriculture, 1998). Families headed by women experienced the highest poverty rates of all family types, (over 40% in nonmetropolitan areas compared to urban rates of 34.4%), and a high proportion of nonmetropolitan women living alone were also poor (30.4%). More than one-fifth of rural children lived in poor families. Over half of the nonmetropolitan poor (52%) live in the South, a disproportionate concentration compared with the South's 44% of the total nonmetropolitan population ( (Rowland & Lyons, 1989; United States Department of Agriculture, 1998).

Poverty rates among rural minorities are much higher than those of rural Caucasians and substantially higher than those of minorities residing in urban centers (United States Department of Agriculture, 1998). The poverty rate was highest for nonmetropolitan Blacks (35.2%), followed by nonmetropolitan Native Americans (33.7%) and nonmetropolitan Hispanics

(33.4%). Almost two-thirds of the rural poor were non-Hispanic Caucasians, a factor largely due to the large Caucasian majority in the rural population (United States Department of Agriculture, 1998).

Nearly all states have distinct rural populations and more than 60% of rural areas have been designated as federal Mental Health Professional Shortage Areas (Mohatt, 1997; United States Congress, Office of Technology Assessment, 1990). Rural residents are less likely than their urban counterparts to have access to inpatient mental health services; in many isolated rural counties, inpatient psychiatric services are almost nonexistent (Wagenfeld, Goldsmith, Stiles, & Manderscheid, 1988). The public mental health system is often the only provider in rural areas and primarily serve persons with serious mental illnesses. Therefore, isolated rural residents who seek mental health services will most likely have to travel long distances for services and will probably see a mental health provider with less advanced training than their urban peers (Wagenfeld et al., 1994).

Both psychologists and psychiatrists tend to be concentrated in urban areas. Rural areas have serious shortages of doctoral trained mental health professionals (Substance Abuse and Mental Health Services Administration, 1997). This shortage of doctoral level mental health professionals often means that rural residents must receive psychological services from primary care physicians who may be poorly prepared to recognize and treat mental illness and behavioral disorders (Ivey, Scheffler, & Zazzali, 1998; Little, Hammond, Kollisch, Stern, Gagne, & Dietrich, 1998; Susman, Crabtree, & Essink, 1995). Moreover, as noted by Geller and Muus (1999), in the absence of trained mental health providers, rural individuals often are forced to seek mental health services from the "de facto mental health system", including ministers, self-help groups, and family or friends (Fox, Merwin, & Blank, 1995). While these services may be important components of total care, they are unlikely to be comprehensive, thorough or adequate.

#### RURAL WOMEN: DEMOGRAPHIC DATA

A standard rural definition has not been created or used throughout research on rural America (Coward, Miller, & Dwyer, 1990) making urban/rural comparisons both difficult and confusing. Moreover, the available information rarely includes a breakdown by gender, age, or ethnicity. Nonetheless, a fairly consistent description of rural women does emerge from the literature.

According to the data from the United States Bureau of the Census (1990), there are 3,871,583 residents living on farms, and 57,786,747 non-farming rural residents, and females account for 52% of the rural population, and 30% of all women in the United States (Bergland, 1988; Office of Technological Assessment, 1990).

Rural women are at an educational disadvantage with only 76% of rural women 25 years of age or older possessing a high school degree or equivalent (Rogers, 1997). The 12% of rural women graduating from a four-year college compared with 22% of urban women further demonstrates this stark contrast.

Education attainment and income level are often correlated. In 1993, nonmetropolitan women made an average of \$8.78 per hour compared to the \$11.25 made by metropolitan residents. While the metropolitan rate has increased \$.50 per hour from 1979, nonmetropolitan women are making \$.10 less (Rogers, 1997). Nonmetropolitan women earned a yearly average of \$18,000 for full-time work compared to \$24,000 for metropolitan women. These incomes vary with higher educational attainment. Rural high school graduates age 25 and over earned an average of \$15,704, while rural college graduates earned \$27,350.

Rogers (1997) reported that 16% of families, 10.5% of married couples, 42.6% of mother-only families, and 56.9% of families with children less than 18 years of age in rural areas are considered as living below the poverty line. Women head 46% of rural households, and of these families, 27% are living below the poverty level, compared to 9% of male-headed rural families.

In general, the rural economy tends to be unfavorable to women. Rural women of all ethnic groups are more likely to be poor than are rural Caucasian males (Hauenstein & Boyd, 1994). Despite significant diversity among rural communities, few employment opportunities exist in many rural areas (Bushy, 1993; Gallagher & Delworth, 1993; Goldsmith, Puskin & Stiles, 1993). The employment that is available remains dependent on such physically demanding industries as logging, mining, and large scale agricultural concerns (DeLeon, et al., 1989). The scarcity of social and economic resources, such as child care and extended educational opportunities, further limits the economic independence of rural women, particularly in the most impoverished areas (Folk, Nickols & Peck, 1989).

The limited employment opportunities in rural areas cause many women to obtain only part-time jobs, significantly reducing their income (Hauenstein & Boyd, 1994), and rural women are more likely to be dismissed from their job in times of financial distress (Richardson, 1988). Larger percentages of rural women participated in unpaid employment in a family business than urban women. Because the productive labor of these women is frequently unstructured and unpaid, their work is often overlooked by labor researchers and censuses (Meares, 1997). Farm women also do not distinguish between their roles as homemakers and farm workers, and their farm labor is often unreported.

Compared to their urban counterparts, rural women are more likely to be married, live in extended family households, have traditional beliefs, and have at least one child, especially at younger ages (Flora, Flora, Spears & Swanson, 1992; Frenzen & Butler, 1997; Mansfield, Preston & Crawford, 1988; Reed, 1992). Fertility rates are higher among rural than urban women, although this pattern is not consistent across all racial and ethnic groups. There is a greater proportion of births occurring to teenage mothers in rural versus urban areas. Rural women are also less likely than urban women to have elective abortions (Reed, 1992).

#### RURAL WOMEN'S BEHAVIORAL HEALTH NEEDS

#### **Depression and Stress**

The most commonly studied psychological disorder in rural areas is depression. In a sample of female clients from a Central Virginia community health center providing primary health care to the medically underserved, 41% reported depressive symptoms exceeding the cutoff score on the CES-D (Hauenstein & Boyd, 1994). This is in sharp contrast to the typical urban prevalence rates of 13-20%. Several factors were related to higher rates of depression, including being younger, unemployed, and poorly educated (Hauenstein & Boyd, 1994).

Sears, Danda, & Evans (1999, in press) utilized a relatively new primary care screening instrument, the PRIME-MD, administered by registered nurses in rural primary care clinics to screen for mood disorders in a predominantly female sample. Similar to the findings of Hauenstein and Boyd (1994), the results indicated that 40% of the sample were classified as depressed and that the severity of this depression was rather high. Further analyses revealed that depressed persons reported clinically and significantly worse mental and physical functioning than non-depressed persons, even after controlling for the effects of age, severity of illness, and tobacco use.

Other studies have pointed to additional factors associated with depression among rural women, including: the isolation associated with rural life which affects both social supports as well as access to mental health services; weather problems; the declining farm economy with resulting unpredictable and irregular income (Bushy, 1993); and the lack of social, educational, and child care resources (Hauenstein & Boyd, 1994; Haussman & Halseth, 1983). In a comprehensive study of 398 rural Blacks and 326 urban Blacks in Tennessee, Linn, Husaini, Whitten-Stovall, and Broomes (1989), found community dissatisfaction to be the strongest predictor of depression. Among rural Blacks, community dissatisfaction had an even greater impact than acute stress. The impact was stronger for younger (age 18-34) rather than older (age 34+) residents.

Numerous community surveys and treatment studies have consistently reported that women exhibit higher levels of psychological distress, particularly depressive symptomatology, than do men (e.g., Barrett, Barrett, Oxman, & Gerber, 1988; Cleary & Mechanic, 1983; Gore & Mangione, 1983). Although the factors responsible for this gender difference have not been clearly identified, it is suggested that they may include sociodemographic variables and the nature and extent of multiple roles often assumed by women. For rural women, in particular, certain variables do appear to increase the risk for depression. These include age, race, motherhood, poverty, and single parenting (Hauenstein & Boyd, 1994; McGrath, Keita, Strickland, Russo, 1990; Weissman & Klerman, 1987). Rural women who reside in the South may be particularly "at risk" with respect to the development of an emotional or mental health disorder as a result of factors such as poverty, isolation, and limited opportunities (Hauenstein & Boyd, 1994).

Delworth, Veach, and Grohe (1988) and Gallagher and Delworth (1993) discussed two primary stressors of rural farm women: role overload (i.e., concurrently working on the farm, in the household, and as an employee or student outside the home); and "invisibility" or lack of recognition for the work that they do on the farm. Scholl (1983) found little difference between nonemployed and employed farm women in their participation in farm work, providing evidence for overload. Gallagher and Delworth (1993) describe this role overload in terms of the "third shift" experienced by many farm women. As a result of financial need, one-third to one-half of all rural women are employed either part-time or full-time outside of the farm (United States Department of the Census, 1980). Thus, many farm women are participating in a "first work shift" of off-farm employment and then work the "second shift" of housework and child care, often with little participation from their husband and with few community options for child care. The "third shift" is the farm work, which these women continue to do even while employed off-farm. These duties include keeping farm financial records, paying taxes and bills, fieldwork and farm chores. This demanding schedule of responsibilities and roles leaves rural women little time to attend to their own needs or to seek out social support. This decreased opportunity to visit

friends or participate in social and religious functions is related to increased feelings of anxiety and depression (Hertsgaard & Light, 1984) and feelings of loneliness and isolation are common experiences for many rural women.

Other common stressors faced by rural farm women include declining farm productivity; managing conflict as family members work in close proximity with each other; unpredictable and irregular income; and weather problems (Berkowitz & Perkins, 1984; Striegel, 1994). The farm crisis of the 1980s contributed significantly to the already-existing stress that many rural farm women experienced (Rosmann & Delworth, 1990).

The job of caring for aging parents and ailing relatives often falls on the shoulders of rural women. Large extended families are more common in rural areas and family members often live in close proximity (Bushy, 1993). Bushy stated that ruralites tend to resist having people they do not know well take care of them, as the rural cultural norms reinforce "taking care of your own." These care giving chores then become another responsibility of the rural woman. Additionally, the caregivers for the severely mentally ill in rural areas are generally mothers who are expected to fill the caregiver role at the expense of their own physical and emotional well-being. The stress of caring for others is made even more difficult because of the lack of available services that can be used to support home care, the distances that often must be traveled to obtain services, and financial difficulties. Therefore it is not surprising to find that rural residents with chronic mental and health illnesses employ crisis services more frequently.

Although depression is quite prevalent in rural areas, and psychological complaints account for more than 40% of all patient visits to rural family practitioners, rural family practice physicians detect 50% less depression in their patients than do their urban counterparts (Rost, Williams, Wherry, & Smith, 1995). Unfortunately, even when mental health professionals were available near physicians' offices, only 5% of the depressed patients received any form of mental health care and it is not uncommon for more than two thirds of the unidentified depression cases initially seen by family practitioners in rural primary care settings to meet the criteria for major depression five months later (Rost, Wherry, Williams, & Smith, 1992; Rost, Zhang, & Fortney,

1995). These findings may be the result of the physicians' failure to detect psychological problems and to refer for mental health treatment, or to the stigma still attached to receiving mental health care (Flaskerud & Kviz, 1993; Rost, et. al., 1992), and the financial difficulties associated with care.

Rural residents often do not associate somatic symptoms with psychiatric or psychological concerns or stressors, and do not want to receive treatment that is obviously psychiatric in nature. Rather, they often favor a perspective which integrates social, mental and physical health (Hill & Fraser, 1995) and refer to problems and concerns which can be acceptably defined as "problems in living," suggesting that appropriate and culturally sensitive mental health services integrated into rural primary care settings are likely to be more effective and to reach a larger number of patients than outside referrals to mental health providers (Badger, Robinson, & Farley, 1999). Van Hook (1996) has noted that rural women in particular are unlikely to discuss the symptoms of depression with their primary care providers, and frequently present in primary care settings with psychosomatic symptoms such as headaches, backaches, insomnia, fatigue, and abdominal pain.

#### **Other Chronic Illnesses**

Rural women are beset with a number of health concerns, often to a greater extent than rural men and urban residents in general. When compared to urbanites, ruralites suffer from higher incidences of chronic illness and experience more disability and morbidity related to diabetes, cancer, hypertension, heart disease, stroke, and lung disease. This may partially be due to ruralites lack of knowledge about early detection and prevention measures. Duelberg (1992) reported that rural women had PAP smears less often than urban women did. Therefore many health problems are in advanced stages by the time rural women seek out medical care, resulting in poorer prognoses.

Moreover, rural women who are diagnosed with breast cancer are less likely to be offered breast conserving treatment options (including reconstruction) and significantly more likely to undergo radical mastectomy than urban women, despite the medical availability of other, less

disfiguring procedures (John, 1998). Discharge data from the Hospital Cost and Utilization Project (1981-1987) show that women treated in urban hospitals are nearly twice as likely to have a breast-conserving procedure and 40% less likely to have a radical mastectomy than rural patients (Khojasteh, Westhoff, Hackman, & Stone, 1999). Rural women surveyed in this study cited transportation as a major factor in this decision process, noting that they anticipate problems traveling on icy rural roads to complete radiation treatments associated with lumpectomy and similar procedures. This study suggested that these rural residents have remained unconvinced of the validity of publicized information on the comparability of therapeutic outcomes of lumpectomy and mastectomy (Khojasteh, Westhoff, Hackman, & Stone, 1999).

Maternal health problems are particularly acute for rural women. Fetal, infant, and maternal mortality are disproportionately high in rural areas (United States Congress, Office of Technology Assessment, 1990; Hughes & Rosenbaum, 1989). Over half a million rural residents live in counties that are without a physician trained to deliver obstetric care. The lack of medical specialists means that rural women are more likely to receive obstetric care from family practitioners than from obstetricians. Even family practitioners are often reluctant to provide obstetric care because of the high cost of malpractice insurance (Rock & Straub, 1994), fear of lawsuits, and the lack of time off from work.

Rural women suffer from the hazards of employment specific to rural environments. In a study of the cancer risks related to agriculture exposure among female farmers, McDuffie (1994) found excesses of non-Hodgkin's lymphoma, leukemia, multiple myeloma, and cancers of the breast, ovary, lung, bladder, and cervix. Secondary exposure to agricultural chemicals by laundering the clothing of agriculture workers also poses considerable risk to women (Grieshop, Villanueva & Stiles, 1994).

Rural women are susceptible to injury as a result of accidents. Traumatic injuries are more common in rural areas, and residents face worse outcomes and higher risks of death than urban patients, partly because of transportation problems and lack of advanced life support training for

emergency medical personnel. Identifying these factors may help shape solutions (Agency for Health Care Policy and Research, 1996).

Rural women are also less likely to engage in healthy lifestyle activities such as regular physical exercise and activity. They are more likely to be obese and think less favorably about their weight than urban women (Duelberg, 1992).

#### **Acquired Immune Deficiency Syndrome**

Although most of the women with HIV/AIDS reside in metropolitan areas, 6% reside in rural regions. Women are most at risk as the result of heterosexual intimacy which is the most common cause of HIV infection in rural areas, and the infection of the female by the male during heterosexual contact is far more likely than the reverse (National Rural Health Association, 1998; Gwinn & Wortley, 1996). In rural eastern North Carolina, people with HIV are more likely to be female, heterosexual, non-Caucasian, and younger. (Rumley, Shappley, Waivers, & Esinhart, 1991). In many rural areas, heterosexual contact accounts for the most HIV transmission. In rural Monroe County, LA, women accounted for 33.3% of all new HIV infections and adolescents 9.7%. In addition, having a sexually transmitted disease (STD) such as syphilis and gonorrhea may increase the likelihood of HIV transmission. Monroe also has one of the highest syphilis rates in the nation (Gruber, 1996).

In addition, the rate of increase in incidence of HIV/AIDS is higher in nonmetropolitan than metropolitan areas. From 1991 through 1992, there was a 9.4% rate of increase in incidence in nonmetropolitan areas in comparison to the 3.1% to 3.3% rate of increase in urban areas (National Rural Health Association, 1997) and from 1992-1995 there was a 30% increase in AIDS cases in rural areas, especially among women, blacks, and adolescents, in comparison to 25.8% in the largest urban centers (Brooks, 1998).

The most rapid escalation is occurring in southern states. Between 1988 and October, 1995, southern states reported both the largest increase in actual numbers and in proportion of population diagnosed with HIV/AIDS (National Rural Health Association, 1997). Ellerbrock, et.

al., (1992) found the proportion of women with AIDS in smaller cities and rural areas to have increased from 22% in 1986 to 28% in 1990. Slightly more than half of these AIDS cases were found in intravenous (IV) drug users. However, even after controlling for IV drug use, infection rates for rural African American women are 20 times higher than for their Caucasian counterparts.

Injection drug use and non-injection drug use, especially crack cocaine use, puts many rural residents at risk for HIV. Drug use is closely linked to prostitution, especially among women and teens. The combination of crack cocaine use and a flourishing sex industry have caused Belle Glade, FL, an agricultural community near West Palm Beach, to have the highest cumulative per capita incidence of AIDS in the US. (McCoy, Metsch, & Inciardi, 1996).

Empirical examinations of the knowledge, attitudes, and behavior of ruralites with respect to HIV/AIDS have yielded mixed results, with some populations showing better than average knowledge while other populations show large gaps in information and negative attitudes about various AIDS related issues (Rozmus & Edgil, 1993). These authors found that 29% of rural women living in the southeastern United States who received an anonymous questionnaire believed AIDS could be contracted when donating blood.

Rozmus & Edgil (1993) also found that women residing in rural areas tend to view AIDS as a problem found only in large cities. Worse, rural residents are likely to be diagnosed in later stages of illness because local health professionals often do not consider them to be at risk, shortening the duration of treatment but increasing the need for more aggressive medical and mental health interventions (Calonge, Petersen, Miller, & Marshall, 1993; Miller, et. al., 1995). Also contributing to the incidence of HIV/AIDS are the high risk sexual or drug using behavior that rural residents may engage in when they travel to urban centers (Rumley, et. al., 1991). Rural men who engage in sexual activities with other males, either in their home communities or in larger urban centers, usually remain secretive about their behaviors. Rural communities can be wellsprings of strong condemnation at times, and traditional moral values, conformity to community norms and intolerance of diversity, homophobia, racism, sexism, stigmatization of

people with AIDS, homosexuals, minorities and drug users may make effective HIV prevention nearly impossible (National Commission on AIDS, 1992). Confidentiality can be hard to maintain in rural areas. Testing for HIV, discussing sexual practices with clinicians, obtaining drug treatment, or buying condoms in local stores are preventive mechanisms which may be less likely to occur in rural communities where a lack of confidentiality and anonymity are perceived (Frazier & Gabel, 1996).

The accuracy of reported rates of HIV/AIDS in rural areas may be detrimentally influenced by several factors, resulting in serious misrepresentations of the need for resources in nonmetropolitan communities. The CDC did not begin to report AIDS incidences by nonmetropolitan area until 1991, and those published are typically cumulative totals (Holmes,, et. al.,1997; National Rural Health Association, 1997). The allocation of resources related to HIV/AIDS is based on where cases are diagnosed and on reported residence at the time of the diagnosis (Brooks, 1998). Rural residents are more likely to underestimate their personal risk and less likely to seek testing for HIV/AIDS than urbanites (Mainous, Neill, & Matheny, 1995). Those who do seek services commonly travel to metropolitan areas for testing, diagnosis and treatment, citing concerns about confidentiality, competence of local health providers, and the availability of newer technological interventions (Mainous & Matheny,1996; Rural Health Association, 1997).

Further, many rural residents with HIV/AIDS have migrated to nonmetropolitan areas only after becoming infected and/or having been diagnosed in metropolitan centers (Berry, 1993; Brooks, 1998; Cohn, Klein, Mohr, Van der Horst, & Weber, 1994; Davis, Cameron, & Stapleton, 1992; Rumley, et. al., 1991), and the migration of people from urban to rural areas is cited as one possible contributor to the increasing AIDS rates in rural areas. A study conducted by the CDC (1995) which followed 49,621 injecting drug users supports this migration theory in a population previously thought to be sedentary. While most of the study participants were recruited in high HIV-prevalence areas, two-thirds of them later migrated to areas that were considered to be low-prevalence communities.

Migration patterns of racial and ethnic groups may vary significantly. For example, research suggests that Hispanics and Caucasians with AIDS migrate to other major metropolitan areas as often as to rural communities. African Americans with AIDS were generally less likely to migrate than other racial and ethnic groups. However, when they did leave the large metropolitan areas, African Americans were twice as likely to migrate to the south (Centers for Disease Control, 1995).

#### VIOLENCE AND RURAL WOMEN

Violence committed by women and against women, poverty, and homelessness are complex and interrelated social phenomena which are no less prevalent and problematic in rural areas than in urban and metropolitan settings. The incidence of spousal abuse does not differ significantly across these residential conditions (Bachman, 1992, 1994; Donnermeyer, 1995; United States Department of Justice, 1997). Although metropolitan rates for attempted rapes per 1,000 women are approximately twice as high as that reported for rural residents, the incidence of completed rape does not differ between settings (Donnermeyer, 1995).

Greater financial and economic dependence on men by women has been associated with increased rates of domestic violence (Navin, Stockum & Campbell-Ruggard, 1993).

Approximately half of the homeless women in the United States are without shelter because they are fleeing from spousal abuse (National Low Income Housing Commission, 1998). Single women and women-heads of household with total incomes that fall below the poverty line are five times more likely to be victims of violence (United States Department of Justice, 1998).

Forty-five to 60% of women headed households in the United States have incomes which fall below the poverty line, and as many as 80% of households headed by African-American women have incomes below the poverty level (DeLeon, Wakefield, Schultz, Williams & Vandenbos, 1989). More than half of these impoverished families are rural (National Low Income Housing Commission, 1998).

Women in major metropolitan areas have the highest risk of being victims of violent assault perpetrated by strangers (Bachman, 1992, 1994; United States Department of Justice, 1998). However, the majority of violent and homicidal assaults against women are perpetrated by persons known to their assailant (American Bar Association Commission on Domestic Violence, 1997; National Center for Injury Prevention and Control, 1998; United States Department of Justice, 1998). Rural women who are victimized are significantly more likely to report that they knew the perpetrator than their urban counterparts (Monsey, Owen, Zierman, Lambert & Hyman, 1995).

Overall suicide rates are highest in rural areas of the western states, with young women in this region committing suicide three times more than those living in metropolitan settings (Center for Disease Control, 1998; Greenberg, et al., 1987). Both homicides and suicides occur disproportionately among young Native Americans living in rural areas. Homicide is the third leading cause of death for Native American females 15 to 34 years of age (National Center for Injury Prevention and Control, 1998). Rural residents of both genders are more likely to use firearms in homicides and suicides than urban residents (Greenberg, et al., 1987; Gunderson, et al., 1993; Liu & Waterbor, 1994; National Center for Injury Prevention and Control, 1998). High levels of rurality, frequently in conjunction with poverty, have been associated with higher rates of homicide throughout the United States (Center for Disease Control, 1997; Greenberg, Carey & Popper, 1987; Wilkinson, 1984).

The rural environment has a unique impact on the manifestation, reporting, and outcome measurement of violence against and by women. For example, suicide rates for rural women may be underreported because, to protect the immediate family or avoid religious or ideological implications, rural coroners may be reticent to identify suicide as the cause of death (Greenberg, et al., 1987). In small, close knit rural communities, victims and perpetrators of sexual assault or spouse abuse are often involved in family or other relationships with the local emergency personnel who would be responding to any call for help (Anahita, 1998). These multiple

relationships and the general lack of anonymity common to small communities can virtually eliminate such needed safeguards as confidentiality and responder objectivity.

Rural communities are isolated from larger metropolitan areas and individual homes may be separated by long distances. Geographic barriers and inclement weather conditions may enhance this isolation. Not only do such circumstances lessen the likelihood that the actions of the perpetrator will be identified or witnessed by others, but the rural violent offender often uses this isolation to great advantage (American Bar Association Commission on Domestic Violence, 1997; Navin, et al., 1993; Women's Rural Advocacy Programs, 1998). Many families do not have telephones and telephone access is easily controlled by simply removing the equipment that may be available (Anahita, 1998; Navin, et al., 1993). Public transportation is almost never available in rural areas and access to any available vehicles can be easily denied (Anahita, 1998; Navin, et al., 1993).

Rural women who seek escape from a violent situation face difficulties that are not encountered by victims in more metropolitan settings. Farm women are often an integral component in the labor and finances of the farm and leaving the home may entail losses that can never be recouped (Anahita, 1998; Women's Rural Advocacy Programs, 1998). Rural women, and rural residents in general, may be very attached to the land itself and without continued care, precious livestock may be endangered (Anahita, 1998; Women's Rural Advocacy Programs, 1998). Shelters, when available, may be so far from the woman's work location that escape would require the abandonment of a job or child care placement in an area where these resources are extremely scarce.

Escape may also require the rural woman to separate herself from the primary sources of support she has depended on throughout her lifetime or to violate local customs in a manner that results in alienation and censure of the victim (Davenport & Davenport, 1979; Navin, et al., 1993; Whipple, 1987).

Victims who do report violent assaults are likely to discover that services are substandard or entirely unavailable (Anahita, 1998; Yoder, 1980). Few rural hospital emergency rooms have

rape kits or personnel who are trained to examine and interview rape victims (Anahita, 1998). Shelters are scarce and may be difficult to access (Anahita, 1998; Bogal-Allbritten & Daughaday, 1990). The objectivity and confidentiality of local services and local service providers may be limited by the existence of multiple relationships and shared cultural biases (Davenport & Davenport, 1979).

#### SPECIAL POPULATIONS

#### **Elderly Rural Women**

The elderly within rural communities are a population of special concern. The United States Bureau of the Census (1991) reported that one out of four older Americans live in rural areas, comprising 15% of the total rural population as compared to 11% of metropolitan regions (Glasgow, 1993). The proportion of elderly in the rural South is significantly higher than in other regions (Centers for Disease Control, 1993). Women have a greater representation among the rural elderly than males, with women outnumbering men three to two at age 65 and five to two at age 85. These women often outlive their husbands by as much as 20 years (Bushy, 1993).

Data on elderly rural women includes few cross-classifications by minority status (Carlton-LaNey, 1992). The Centers for Disease Control (1993) found that 92% of the nonmetropolitan elderly and 88% of the metropolitan elderly were Caucasian. A phenomenological article by Carlton-LaNey (1992) of 10 elderly rural African-Americans revealed risk areas that include economic security, health, care giving responsibilities, social isolation, and dependency upon others.

Dorfman and Moffett (1987) completed an eight-year epidemiological study on 91 married and 77 widowed retired women age 65 and older in rural Iowa counties. They found that aid received from others by widowed women negatively affected satisfaction with retirement, perhaps symbolizing the loss of independence. The authors postulated that needing help from others may serve as a reminder that their spouse is deceased and reinforce their sense of loneliness. Schwenk (1994) stated rural elderly women experience high levels of stress

associated with their inability to provide care for themselves and loved ones. Volunteer work was related to satisfaction with retirement for both groups of women. It appears that the more active these women are within their community, the greater sense of self and connectedness they feel. Self-perceived health was related to retirement satisfaction for both groups.

Incomes of rural elderly women are considerably less than their urban counterparts (Schwenk, 1994). The average income was \$8,209, although the urban population received \$11,869.

Nonmetropolitan elders have significantly higher rates of poverty than their metropolitan counterparts (CDC, 1993; McLaughlin & Jensen, 1993). They compose 20.3% of those in poverty compared with 13.5% in metro areas. Economic status was found to be strongly affected by marital status. Glasgow, Holden, McLaughlin & Rowles (1993) found that 8% of elderly rural couples were poor, while more than 33% of single or widowed women were below the poverty level. Rural elderly are more likely to be disabled than their urban counterparts (United States Department of Agriculture,1997), to have chronic health and physical impairments, and to consider themselves in fair or poor health (Centers for Disease Control, 1993; Lishner, Richardson, Levine & Patrick, 1996). The most common disorders afflicting rural elderly women are arthritis, hypertension, and cardiovascular problems. However, older rural adults are less likely than their urban counterparts to use noninstitutional service providers to deal with their health issues and concerns (Coward, et. al., 1990).

Rural residents and their health care providers are more dependent on receiving Medicare for services than urban residents (USDA, 1997). Seccombe's study (1995) that consisted of 1,425 low-income elders found that those individuals living in rural areas were nearly twice as likely to receive Medicaid and rely on this service as a supplement to Medicare than those elderly living in urban areas. However, only one-fourth of the rural poor qualify for Medicaid, compared to 43% of the poor in urban areas (United States Senate, 1988).

#### Adolescents

Adolescents comprise another rural population deserving of serious attention. Pregnancy rates for 18 and 19 year old rural girls are 30 to 40% higher than their urban counterparts (Skatrud,

1996). However, pregnancies are equal in numbers for urban and rural girls under the age of 17. Abortions are half the rate for rural teenagers as they are for urban adolescents and the rural teenagers are more likely to give birth (77.4 per 1,000 births compared with 66.3 urban). Rural African-American teenagers between the ages of 10 to 14 years have an infant mortality rate of 28.5 per 1,000 births, more than twice the rate for African-American urban adolescents (Skatrud, 1996).

Alcohol abuse is higher in rural than urban areas, with 43% of rural adolescents and 40% of urban adolescents abusing alcohol (Skatrud, 1996). Rural adolescents in the eighth grade are 29% more likely to drink alcohol than their urban counterparts and they are also 70% more likely to get "drunk" (Center on Addiction and Substance Abuse, 2000). Rural youths are more likely to drive an automobile under the influence of alcohol than their urban counterparts. Eighty percent of rural youth report that their parents approve of their alcohol consumption versus 63% for the urban youth (Skatrud, 1996).

Rural eighth grade adolescents are 83% more likely to use crack cocaine, 50% more likely to use cocaine, 34% more likely to use marijuana, and 104% more likely to use amphetamines (including methamphetamine) than their urban counterparts. They are twice as likely to smoke cigarettes and nearly 5 times more likely to use smokeless tobacco than urban teens. Among 10 th grade youth, aged 15 to 16 years, rural adolescents are more likely to use almost all illegal drugs, with the exception of MDMA (known as "ecstasy" on the street) and marijuana. Similar results hold true for rural versus urban youth in the 12<sup>th</sup> grade (ages 17 to 18 years) (Center on Addiction and Substance Abuse, 2000).

#### **Unmarried Mothers**

Thirty-one percent of rural births are to unwed mothers, compared to 33% urban. Of these births, 73% were to African-American women which is slightly higher than the 70% reported for their urban counterparts (Frenzen & Butler, 1997). One out of nine infants born in rural areas is to an unmarried teenage mother compared with one out of ten in urban areas. Teenagers

represent a higher proportion of births out of marriage in rural areas. Although rural women were more likely to be married than urban women, the marital birth rate was lower in rural areas for 1994 (Frenzen & Butler, 1997).

#### **Rural Lesbians**

Lesbians are shunned from rural society because of the traditional values and strong conservative ideas found within these communities (Bachrach, 1983; Bushy, 1993). This population is perhaps the most invisible of all rural women (D'Augelli & Hart, 1987). D'Augelli and Hart (1987) suggested that the anonymity often found in large cities is non existent in the rural areas. There can be few opportunities for social connection and a lack of a helping community, as these women are not all publicly open about their homosexuality. This can lead to low self-esteem and depression. It is difficult to find common places to meet for socialization where others will not chastise them. This sense of cultural heterosexism is common among rural residents. If someone engages in homosexual behavior or is identified as such, society shuns them (Herek, 1995). However, rural lesbians are increasingly, and successfully, using the internet to improve their social contacts and to provide mutual assistance.

#### **Rural Women With Disabilities**

Women with disabilities constitute approximately 8% of the total U.S. population and approximately 26% of all women with disabilities are living in rural areas. Disabled rural women tend to be poorer, in worse health, less-educated and more dependent on government social service programs than others. They face limited access to employment and economic opportunities, limited transportation options, scarce or unaffordable housing, and lack of access to health care providers who are knowledgeable about disabilities (Seekins, Innes, & Maxson., 1998).

Rural women with disabilities are approximately three times less likely to be employed (27%) than rural women without disabilities. In comparison, rural men with disabilities are

approximately two times less likely to be employed (38%) than men without disabilities. Rural women with disabilities are the "poorest of the poor" -- 80.51% make less than \$10,000 a year. Elderly women with disabilities living in rural areas experience the most severe poverty (Seekins, Innes, & Maxson., 1998). These stressors are likely to be exacerbated in rural areas due to lower levels of education, limited opportunities, and isolation (Nosek, Howland, & Young, 1997).

Women with disabilities are more likely to report urinary tract infections, depression, osteoporosis, restrictive lung disease, inflammatory bowel disease, heart disease, seizure disorders, and kidney disease than able bodied women; those with mobility impairments experience an average of 14 secondary conditions per year (rural and urban did not differ) (Nosek, Rintala, & Young, 1997). Rural women with physical disabilities who are victims of domestic violence typically experience abuse of longer duration and have fewer options than urban women, or even nondisabled rural women, for escaping the abusive situation (Nosek Howland, & Young, 1997).

#### **BARRIERS TO TREATMENT**

Many residents of remote rural areas who suffer from mental illnesses do not seek care. Various factors affect the utilization of health care services within the rural community. As in urban areas, people do not seek care in part because of the stigma associated with mental illness, lack of understanding about mental illnesses and their treatments, lack of information about where to go for treatment, and the inability to pay for care.

#### Cultural Barriers: Mistrust, Stigma and Loss of Independence

The Surgeon General of the United States has recently cited the importance of providing culturally competent services to diverse groups, including rural residents (United States Department of Health and Human Services. Mental Health, 1999). Policies and programs designed for urban mental health services often are not appropriate for rural mental health

services (Beeson et al., 1998). Some barriers to "help-seeking" are "cultural," insofar as rural America reflects a range of cultures and life styles that are distinct from urban life. Urban culture and its approach to delivering mental health services dominate mental health services (Beeson et al., 1998).

Cultural attitudes commonly observed in rural communities include a distrust of others they do not know on a personal level (Bushy, 1993; Wagenfeld, Murray, Mohatt & DeBruyn, 1993). A high value is placed on self-reliance (Pothier, 1991), and rural residents may fear that community members will find out that they required assistance for emotional difficulties (Berkowitz & Helund, 1979) which would directly conflict with that value.

The stigma that mental illnesses have in rural areas has been cited throughout the literature as have fears about confidentiality in rural settings that tend to lack anonymity (Bachrach, 1983; Bergland, 1988; Flaskerud & Kviz, 1983; Rost, Smith & Taylor, 1993).

Finally, the health care workers in rural settings may contribute to the barriers perceived by the people they are serving. Therapists are often trained according to urban standards, which do not mesh in rural communities (Wagenfeld & Buffum, 1983). Strickland & Strickland (1996) reported that physicians interact differently with lower socioeconomic and minority status clientele, giving less medical information and shorter consultations than with other patients of nonminority status.

#### Lack of Awareness of Services / Lack of Perceived Value

Mohatt & Kirwan (1995) found that rural residents lacked an awareness of the need for mental health care. Strickland & Strickland (1996) reported that preventive services were perceived as unnecessary, as evidenced by one-fifth of the rural women they studied not receiving gynecological care due to personal preference. Fewer preventive services in rural versus urban areas, coupled with community values that discourage their use, and perceived prejudice and discrimination throughout the health care system may account for much of the under utilization (Strickland & Strickland, 1996).

#### **Lack of Services**

Should a rural woman decide to seek outreach services, she will find that professional psychologists are not evenly distributed and can not effectively meet the needs of isolated persons (Murray & Keller, 1991).

Similarly, the lack of quality inpatient care for severely mentally ill people is another serious problem in rural areas. These patients must often obtain care in hospitals that are located far from family and friends or be hospitalized in general medical settings where no psychiatric consultation is available. Once discharged back into the community, there are limited psychosocial rehabilitation services available and thus patients are often re-hospitalized at a very high cost compared to outpatient care.

Rural residents may not be aware of the various entitlement programs available to them.

Because of the high levels of poverty in rural areas, there is a limited tax base to fund these services (Bacharach, 1983; Human & Wasem, 1991; Wagenfeld & Buffum, 1983), causing under funding and understaffing of health care centers which further exacerbates the problem (Wagenfeld, Murray, Mohatt & DeBruyn, 1993).

#### Cost

The cost of services is a major barrier. Cost is consistently cited as the main deterrent to using mental health services (Beck, Jijon & Edwards, 1996; Human & Wasem, 1991; Muller, 1990; Strickland & Strickland, 1996; Wagenfeld & Buffum, 1983). Beck et al. (1996) reported that out of 75 rural residents who did not receive health care because of the high cost, 68% were women. Strickland & Strickland (1996) completed a study on 281 rural minority households and found that more than half reported the inability to pay as the main reason for not seeking the help of a physician. This is understandable, as poverty is far more prevalent for rural women than their male counterparts (Beck, Jijon & Edwards, 1996).

Beck, Jijon & Edwards (1996) and Rowland & Lyons (1989) stated that a lack of health insurance is a significant barrier to treatment and rural areas have disproportionate populations of uninsured and underinsured. As a result of a large percentage of rural persons being employed in

small business or self-employed, they are more likely to be uninsured or have only "catastrophic" insurance coverage, which lacks behavioral health benefits. Only one-fourth of the rural poor qualify for Medicaid, compared to 43% of the poor in urban areas (United States Senate, 1988). Muller (1990) found that rural women were less likely to have health insurance than males due to the lack of employment opportunities and poverty.

Of those people who have medical insurance, many lack insurance coverage for psychotherapy even if they can find a therapist in their area. Many of the newer psychoactive medications are very expensive so that treatment combining medication and psychotherapy is usually not an option for people in rural areas.

#### Access, Transportation, and Communication Barriers

Because large distances may separate patient and provider, transportation difficulties have been cited in the literature as another barrier to access of treatment. Rural residents may not own individual automobiles; some may not have driver's licenses and there is rarely any form of public transportation in rural and frontier regions (Bacharach, 1983; Beck, Jijon & Edwards, 1996; Human & Wasem, 1991; Murray & Keller, 1991; Ponthier, 1991; Strickland & Strickland, 1996). Strickland & Strickland (1996) found that some rural residents listed not having a telephone as a barrier to obtaining transportation to centers.

Weather can also be detrimental to transportation needs (Murray & Keller, 1991) and lack of ancillary services like child care can limit access to services.

#### **Catchment Areas and Policy**

Catchment areas, established by a now lapsed act of Congress in 1963, still endure and can also complicate access to services for rural residents. Under this system, the delivery of public mental health is tied to county and state policy and revenues streams, often having to do with the reality of how persons seek services. Rural residents who routinely enact business in one area may be required to use services provided in another as a result of the funding mechanism in

place. Longer travel is often mandated where the population density is low and frequently the travel has little to do with the rural resident's normal trade and commerce.

#### IMPLICATIONS FOR RESEARCH, EDUCATION AND SERVICE

#### I. Recommendations for Research

The lack of research related to the behavioral health needs of rural women is readily documented and must be addressed aggressively. Gender specific research covering the life span of the rural woman, from her early, formative years through advanced old age, is greatly needed. The multiple roles played by rural women should be fully considered in experimental design. The heterogeneity of the rural population mandates consideration of such variables as culture, race, ethnicity, marital status, education, and socio-economic status.

Certain research designs are more likely to yield information which significantly adds to our understanding of the needs and concerns of rural women. Among these are epidemiology, morbidity, provider availability, and provider access studies. In addition, methodologies associated with clinical community research should be widely employed, including needs assessment, identification of community resources, program evaluation, and efficacy of both prevention-based and treatment focused services. The involvement of participants in the planning of research and the use of local community leaders as key informants may help to ensure that procedures are culturally sensitive and relevant.

An important aspect for research that is emerging in the literature involves the science of collaboration. Continued research should investigate the most efficacious way of encouraging interdisciplinary care for rural women. Questions to be answered by applying this type of research methodology include the following. (1) What is the best location for care? (2) Who should be a part of the health care team? (3) What is the best method of training people to work collaboratively in rural areas? (4) What factors lead to retention of caregivers in rural areas? (5) What are some cost-effective models of interdisciplinary care in rural areas?

#### II. Education and Training

#### A. Professional & Clinical Training Programs

The fact that approximately one of every four Americans lives in a rural region clearly mandates the inclusion of a rural focus in every professional training program. Moreover, women who comprise more than 50% of the rural population, have behavioral health concerns that are gender and role specific, are more likely to utilize health services than men, typically outlive their spouses, and are often responsible for making health care decisions for the entire family. The behavioral health needs of this large though readily overlooked population, should be an area of emphasis in every professional training program.

The Depression Awareness, Recognition, and Treatment (DART) Program was developed in 1988 to educate primary care physicians and other health professionals around the country about the signs of and treatment for depressive disorders (Meyer, 1990; Hunter & Windle, 1991). However, an integrated, interdisciplinary approach will be needed to address the behavioral health needs of rural women and the curricula of professional training should facilitate this cooperative approach. Professional training should involve population-specific clinical emphases and curricula intended to facilitate cultural competence.

Clinical curricula for mental health professionals should include course work that focuses on consultation procedures, the unique ethical concerns associated with rural practice, and the economics of service provision, including personal and third party funding for individual services and funding for larger institutions such as rural hospitals and community health centers. Skills to be taught should include preparation of grant proposals, facilitation of effective group / organizational processes, and the use of research procedures that can most effectively examine rural and community related issues, including needs assessment, resource identification, program evaluation, and outcome measurement.

Training programs for all health professions should incorporate interdisciplinary learning opportunities, promoting integrated, holistic service provision through the linkage of primary and preventive health care with mental health and substance abuse services, social service agencies, and researchers. Professional cooperation is central to the provision of effective, comprehensive

physical and mental health care for rural women. Training programs can foster collaborative professional cooperation by exposing students to the services, goals, and intervention strategies adopted by providers from diverse health related professional backgrounds. Academic institutions should establish partnerships with other community organizations that provide behavioral health services to rural women to facilitate field training opportunities for students in these settings.

Although research remains to be done, it is likely that the ideal educational model will involve training students from different disciplines side by side in rural and frontier communities. Advantages of such a model include reduced duplication of effort, greater appreciation of, and reliance upon, the skills of colleagues in the promotion of more effective primary care. This enhanced effectiveness should eventually lead to more comprehensive and continuous care (the hallmarks of primary care) in the community and increase the likelihood that rural women will view their care as beneficial. Some family medicine and nursing education programs already incorporate interdisciplinary training. In Santa Rosa's family medicine program, for example, psychologists are trained side by side with the family medicine residents and psychology trainees attend hospital rounds with their family medicine colleagues. In ambulatory care facilities, the trainees see patients together or in consultation with one another, and jointly attend staffings related to these patients.

An educational initiative called Community Partnerships in Graduate Medical and Nursing Education sponsored by the W. K. Kellogg Foundation has the clear goal of conducting education programs in community-based settings. The program involves intense interaction among students, residents, faculty and community members, emphasizing responsiveness to needs of the people; trainees come to view the health care system through the eyes of recipients. The program emphasizes broad rather than specialized training, focusing on wellness and the early detection of health care problems. In addition to physicians and nurses, graduate trainees include psychologists, social workers, public health workers, and environmental health workers. Community outreach is considered to be an integral aspect of the training experience, and typical

community outreach programs include service provision in school based clinics, on "care of dying" teams, and in rural health clinics.

Training programs for professionals who will eventually serve rural communities should actively promote the recruitment, retention, and graduation of rural women and facilitate faculty competence by providing support for relevant faculty development and by giving priority to projects which include a rural emphasis. Academic programs can promote outreach programs in rural secondary schools and regional undergraduate colleges to stimulate interest in careers related to rural health care research and practice. Financial assistance and priority placement for prospective students from economically distressed rural backgrounds and remedial coursework for students from educationally depressed regions are potentially effective strategies for recruitment and retention, and should be aggressively implemented.

#### **B.** Academia (General)

Academic programs are ideal agencies for the collection, critique and dissemination of information. Educational institutions can serve both their students and their communities by promoting awareness and understanding of behavioral health issues and specialized services among providers and consumers alike.

Colleges and universities are uniquely positioned to encourage and facilitate effective rural practice and research by providing opportunities for isolated rural service providers to obtain continuing professional education within their geographic region. Advanced students are available to assist faculty members conducting demonstration projects and efficacy studies in rural communities. Educational institutions are also uniquely qualified to facilitate the development of technology associated with distance learning and telehealth initiatives, two innovations which hold significant promise for rural service provision.

#### III. Recommendations for Psychologists in Rural Communities

The rural clinician can have a tremendous impact by being an active member of his/her community. Clinicians will need to be sensitive to the reality of depressed rural economies and respond with creative innovation. Psychologists in rural areas should consider volunteer activities, particularly with regard to provision of preventative and group interventions. For example, psychologists could serve as resources for local schools, providing workshops for faculty and administrators or developing programs and projects that can help to empower women and girls. As community members and volunteers, psychologists can help to organize grass roots movements, serve as a liaison with educational institutions and service providers, and provide expertise to local groups (research design, outcome measurement, and grant preparation).

Psychologists are uniquely qualified to serve as consultants for local professionals and community organizations to promote cooperative, integrated, non-overlapping, and cost effective service provision and to facilitate communication among diverse group members. Turf wars, competition for scarce funding resources, and goal diversity are barriers that can be addressed by mental health professionals in rural areas. Psychologists have also become increasingly involved in facilitating Balint groups that provide rural medical professionals the opportunity to explore their relationships with patients.

Rural practitioners and researchers can also play an active role in training and education. Psychologists can teach courses at regional colleges and universities and can offer elective classes or continuing education workshops in medical training programs, at rural hospitals and clinics. Rural areas that lack professional service providers also lack opportunities for student training. Psychologists in rural communities should seek opportunities to serve as supervisors and preceptors for future professionals who are considering rural practice.

## IV. Recommendations for the American Psychological Association and Similar Professional Organizations

The Practice Directorate of the American Psychological Association (APA) has taken commendable action to help end the invisibility of rural women and to address their needs. Among these efforts have been the formation of the Rural Task Force, the Rural Women's Work Group, and the Committee on Rural Health, all of which have adhered to goals which include providing information to members, to the legislative and government bodies, to consumers of services, to professionals in various disciplines, and to other relevant government agencies. APA has diligently lobbied Congressional members and state delegates to support legislation favorable to rural service development and provision. The Directorate's RuralPSYCH website represents an innovative application of telecommunications technology, and is one of the most readily accessible resources available. Similarly, APA has recognized rurality as a critical variable requiring additional research and has helped to build inter-agency awareness of the need for research related to rural populations.

The Association has also been a leading force in efforts to promote innovations that have significant promise for underserved rural populations, including telehealth technology, publication of on-line professional journals, and consideration of prescription privileges for psychologists and other behavioral health professionals. Efforts to identify and examine the ramifications of new technology and services should be continued. Additionally, APA must continue to serve as a resource for information related to third party reimbursement for rural providers, including managed care programs, and to lobby for changes and improvements in all third party payment processes, most particularly managed care policies and federal Medicare/Medicaid.

There are few psychology training programs and professional schools that prioritize rural residence among their acceptance criteria. APA should continue to be a resource for the development of programs that are specifically focused on serving rural students and on training professionals to work in rural communities. The listing of psychology training programs and internships with a rural emphasis found an RuralPSYCH has been helpful.

APA should continue to serve as a resource for researchers, actively seeking and disseminating information related to funding resources for rural demonstration and research projects. It should continue to insist that rural residence be granted high priority for Federal agency attention and funding and encourage researchers to further consider gender, ethnicity, minority status, socio-economic status and other relevant variables in their designs.

APA plays a leading role in the dissemination of information through conferences and publication of professional literature. The inclusion of research papers, workshops and symposia concerning the behavioral health needs of rural residents should be encouraged. Scheduled focus times, such as those arranged for the Rural Health Forum at the APA convention, are valuable components of ongoing agency efforts to inform psychologists and other health professionals about rural communities and the needs of rural women.

#### V. Considerations for Public / Private Insurers and Policy Makers

Provision of effective services in rural and frontier regions will require innovative and comprehensive solutions to complex problems. Prevention must become standard in behavioral health care, with an emphasis on promoting wellness rather than on treating illness. Ancillary services are needed in rural areas and should be included as part of a comprehensive plan and the impact of managed care systems on rural service provision must be carefully considered to permit cost effective intervention. Large insurers do influence both community action and research and all will benefit from integrated planning efforts aimed at establishing well managed, preventive, cost effective service provision in rural communities.

#### A. Wrap Around or Ancillary Services

As Mohatt (1997) points out, individuals with mental or addictive disorders served in the public sector often require a wide range of social and rehabilitative support services, including such ancillary services as transportation, child care, employment-related services, which are usually not funded as health care services. When available, such services are generally funded,

managed, and under the jurisdiction of several agencies in different government departments, a situation that can result in significant barriers to access. However, the appropriate mix of "wraparound" services needed should be individually determined as part of the individual's treatment plan and might best be managed as a part of a more comprehensive package of services facilitated by insurers and provided in the communities themselves.

In addition to those previously described, needed wrap around services might include: assistance with housing (e.g., Section 8 rental subsidies); vocational training, job counseling, and other employment-related services; primary health care, with screening for human immunodeficiency virus (HIV), tuberculosis, and other infectious diseases; educational support services; legal consultation and related counseling services (e.g., custody, landlord rights, divorce disputes, etc.); financial counseling; domestic violence support services; health and nutrition education; parenting classes; and child/adolescent support services (e.g., after school programs, teen centers, mentoring programs, and recreational programs).

#### B. Research Related to the Impact of Managed Care

The implications of managed care on rural service provision have not been empirically established, because of a lack of rural-specific managed care experience and the rapid evolution of managed care strategies. There is controversy concerning the cost effective implementation of managed care programs in rural areas, which would appear to be most reasonably addressed by integrated teams of researchers representing the potential consumers, the providers, the communities and the insurers.

Korczyk (1994) claims that managed care may actually be more effective in enhancing health care access for rural populations than the traditional American healthcare system of independent providers being reimbursed by patients and indemnity insurers on a fee-for-service system, although it may be less effective in reducing the cost of care to rural populations (Mohatt, 1997). Korczyk (1994) asserts that rural residents will probably have greater access to

primary care under managed care, but will need to utilize urban resources for more specialized care at a greater cost. Serrato and Brown (1992) suggest, based on a review of the Medicare system, that underserved rural areas are typically not a source of high cost and recommend that emphasis be placed upon increasing access in rural areas, rather than on controlling costs.

Clearly the need is critical to understand better the impact of such dramatic system change on accessibility and availability of services in behavioral health systems serving remote frontier populations through empirical research (Mohatt, 1997).

Mohatt (1997) clearly identifies the challenges that effective health care systems, such as managed care strategies, must address to ensure both cost containment and access to quality service in rural and frontier areas. These challenges include: widely dispersed populations; geographically vast areas; chronic shortages of health care providers; lack of inpatient psychiatric (and other) resources; lower per capita participation in health insurance and medicaid; small tax base; limited array of available services, dependence on public subsidies for mental health services; limited supportive (ancillary) services; lower levels of consumer advocacy; limited self-help resources; stigma; and lack of anonymity.

It in important for behavioral (and other) health specialists, health administrators, and community activists to work together collaboratively on solutions to these complex issues.

# C. Federal and State Financial Aid for Placing Mental and Behavioral Health Clinicians in Rural Areas.

The Rural Women's Work Group of the American Psychological Association's Rural Task Force wants to underscore the importance of federal and state financial aid for placing mental and behavioral health clinicians in rural areas. According to the Federal Bureau of Primary Health Care, approximately 75% of the 700 mental and behavioral health professional shortage areas nation wide are in rural areas (Division of Shortage Designation, September 30, 2000). Other

rural communities in need have not yet requested a designation as a shortage area. For those 700 designated, It is estimated that 1200 psychologists and other mental and behavioral health professionals are needed. Approximately 200 mental and behavioral health professionals are currently participating in the National Health Service Corps. It is uncertain how many are participating in state programs but it is clear that financial incentives through scholarships and loan repayment for health professionals are essential to attract mental and behavioral health professionals to under served rural areas.

## REFERENCES

Agency for Health Care Policy and Research (AKA Agency for Healthcare Research and Quality) 1999. *AHCPR Publication Number 96-R028*; Rockville, MD.

Agency for Health Care Policy and Research (AKA Agency for Healthcare Research and Quality) 1996. AHCPR Publication No. 96-P040. Improving Health Care for Rural Populations.

Research in Action Fact Sheet. Agency for Health Care Policy and Research, Rockville, MD. }

American Bar Association Commission on Domestic Violence. (1997) *Multidisciplinary responses to domestic violence*. Http://www.abanet.org/domviol/mrdv/facts.html.

Anahita, S. (1998) Way out here: The unique situation of rural Iowa women in battering relationships. Http://www.netins.net/showcase/kaystine/iawom.htm.

Ahr, P. R., & Holcomb, W. R. (1985). State mental health directors' priorities for mental health care. *Hospital and Community Psychiatry*, *36*, 39–45.

Barrett, J. E., Barrett, J. A., Oxman, T. E., & Gerber, P. D. (1988). The prevalence of psychiatric disorders in a primary care practice. *Archives of General Psychiatry*, *45*, 1100-1106.

Bachman, R. (1992) *Crime Victimization in City, Suburban, and Rural Areas: A National Crime Victimization Survey Report*, United States Department of Justice Programs, Washington, DC.

Bachman, R. (1994) *Violence Against Women: A National Crime Victimization Survey Report,* United States Department of Justice Programs, NCJ - 145325, Washington, DC.

Bachrach, L. L. (1983). Psychiatric services in rural area: A sociological overview. *Hospital and Community Psychiatry*, *34*(3), 215-226.

Badger, L., Robinson, H., & Farley, T. (1999) Management of mental disorders in rural primary care. *The Journal of Family Practice*, 48(10), 20-25.

Barrett, J. E., Barrett, J. A., Oxman, T. E., & Gerber, P. D. (1988). The prevalence of psychiatric disorders in a primary care practice. *Archives of General Psychiatry*, *45*, 1100-1106.

Beck, R. W., Jijon, C. R. & Edwards, J. B. (1996). The relationships among gender, perceived financial barriers to care, and health status in a rural population. *The Journal of Rural Health*, *12*(3), 188-196.

Bergland, B. (1988). Rural mental health: Report of the National Action Commission on the mental health of rural Americans. *Journal of Rural Community Psychology*, 9(2), 29-39.

Berkowitz, A. & Hedlund, D. (1979). Psychological stress and role congruence in farm families. *Cornell Journal of Social Relations*, *14*, 47-58.

Berkowitz, A. D., & Perkins, H. W. (1984). Stress among farm women: Work and family as interacting systems. *Journal of Marriage and the Family*, 46, 161-166

Berry, D. (1993) The emerging epidemiology of rural AIDS. *The Journal of Rural Health*, 9(4), 293-304.

Beeson, P. G., Britain, C., Howell, M. L., Kirwan, D., & Sawyer, D. A. (1998). Rural mental health at the millennium. In Mandersheid, R.W., & Henderson, M. J. (Eds.), *Mental Health in the United States*, 1998 (DHHS Publication No. (SMA)99-3285, pp. 82–98). Washington, DC: U.S. Government Printing Office.

Bogal-Allbritten, R. & Daughaday, L. R. (1990) Spouse abuse program services: A rural-urban comparison. *Human Services in the Rural Environment*, 10(3), 6-10.

Bokemeier, J., Sachs, C. & Keith, V. (1983). Labor force participation of metropolitan, nonmetropolitan, and farm women: A comparative study. *Rural Sociology*, 48, 515-539.

Brooks, J. (1998) Increasing AIDS rates in rural areas deserve more attention. *Rural Clinician Quarterly*, 8(1), 1-2.

Bushy, A. (1993). Rural women: Lifestyles and health status. *Nursing Clinics of North America*, 28(1), 187-197.

Calonge, B. N., Petersen, L. R., Miller, R. S., & Marshall, G. (1993) Human immunodeficiency virus seroprevalence in primary care practices in the United States. *The Western Journal of Medicine*, *158*(2), 148-152.

Carlton-LaNey, I. (1992). Elderly Black farm women: A population at risk. Social Work, 37(6), 517-523.

Centers for Disease Control and Prevention (1995). *HIV/AIDS Surveillance Report*, 7, 10. Atlanta, GA: Author.

Centers for Disease Control (1997) Atlas reveals new mortality patterns for the United States. Http://WWW.CDC.Gov/od/oc/media/presserel/deaths.htm.

Center on Addictions and Substance Abuse (2000) CASA PAPER: Rural 8th Graders Using Drugs, Smoking, Drinking at Higher Rates Than Urban 8th Graders.

Http://www.casacolumbia.org/newsletter1457/newsletter\_show.htm?doc\_id=23562

Clayton, T. (1977). Issues in the delivery of rural mental health services. *Hospital and Community Psychiatry*, 28, 673-676.

Cohn, S. E., Klein, J.D., Mohr, J. E., Van der Horst, C. M.& Weber, D.J.(1994) The geography of AIDS: Patterns of urban and rural migration. *Southern Medical Journal*, 87(6), 599-606.

Coward, R. T., Miller, M. K. & Dwyer, J. W. (1990). Rural America in the 1980s: A context for rural health research. *The Journal of Rural Health*, *6*(4), 357-363.

D'Augelli, A. R. & Hart, M. M. (1987). Gay women, men, and families in rural settings: Toward the development of helping communities. *American Journal of Community Psychology*, 15(1), 79-93.

Danbom, D. (1995). *Born in the country: A history of rural America*. Baltimore: Johns Hopkins University Press.

Davenport, J. & Davenport, J., III (1979) The rural rape crisis center: A model. *Human Services in the Rural Environment*, *I*(1), 29-39.

Davis, K. A., Cameron, B., & Stapleton, J. T. (1992) The impact of HIV patient migration to rural areas. *AIDS Patient Care*, *6*(5), 225-228.

DeLeon, P.H., Wakefield, M., Schultz, A. J., Williams, J. & VandenBos, G. R. (1989) Rural America: Unique opportunities for health care delivery and health services research. *American Psychologist*, 44(10), 1298-1306.

Delworth, U., Veach, S. D., & Grohe, L. (1988). Clinical issues with farm women. In P. A. Keller and S. R. Heyman (Eds.) *Innovations in Clinical Practice: A Source Book* (Vol. 7, pp. 423-432). Sarasota, FL: Professional Resource Exchange, Inc.

Donnermeyer, F. (1995) Crime and violence in rural communities. In S.M. Blaser, J. Blaser, & K. Pantoja (Eds.) *Perspectives on Violence and Substance Use in Rural America*. Oakbrook, IL: North Central Regional Educational Laboratory, 27-63.

Dorfman, L. T. & Moffett, M. M. (1987). Retirement satisfaction in married and widowed rural women. *The Gerontologist*, 27(2), 215-221.

Duelberg, S. I. (1992). Preventive health behavior among Black and White women in urban and rural areas. *Social Sciences Medicine*, *34*(2), 191-198.

Dyer, J. (1997). *Harvest of rage: Why Oklahoma City is only the beginning*. Boulder, CO: Westview Press.

Ellerbrock, T. V., Lieb, S., Harrington, P. E., Bush, T. J., Schoenfisch, S. A., Oxtoby, M. J., Howell, J. T., Rogers, M. F. & Witte, J. J. (1992). Heterosexually transmitted Human Immunodeficiency Virus infection among, g pregnant women in a rural Florida community. *The New England Journal of Medicine*, 24, 1704-1709.

Flaskerud, J. H. & Kviz, F. J. (1983). Rural attitudes toward and knowledge of mental illness and treatment resources. *Hospital and Community Psychiatry*, *34*(3), 229-233.

Flora, C. B., Flora, J. L., Spears, J. D. & Swanson, L.E. (1992). *Rural Communities*. Cincinnati, OH: Ohio University

Folk, K. F., Nickols, S. Y. & Peck, C. J. (1989). Socio-psychological factors related to work status of rural women. *Lifestyles: Family and Economic Issues*, *10*(4), 325-343.

Frazier, E. M., Gabel, L. L. (1996). HIV/AIDS in family practice: an approach to care in rural areas. *Family Practice Recertification*. *18*, 59-77.

Freeman, H. E. & Corey, C. R. (1993). Insurance status and access to health services among poor persons. *Health Services Research*, 28, 531-542.

Frenzen, P. D. & Butler, M. A. (1997). Birth to unmarried mothers is rising faster in rural areas. *Rural Conditions and Trends*, 8(2), 66-69.

Fox, J., Merwin, E., & Blank, M. (1995). De facto mental health services in the rural south. *Journal of Health Care for the Poor and Underserved*, 6, 434-68.

Gallagher, E. & Delworth, U. (1993). The third shift: Juggling employment, family, and the farm. *Journal of Rural Community Psychology*, *12*, 21-36.

Geller, J.M. & Muus, K. J. (1999) *The Role of Rural Primary Care Physicians in the Provision of Mental Health Services Letter to the Field No.5*. The Center for Rural Health, University of North Dakota School of Medicine & Health Sciences.

Glasgow, N. (1983). Antecedents and consequences of community satisfaction among metropolitan-to-nonmetropolitan migrants in the Midwest: A test of alternative explanations. *Dissertation Abstracts International. March*, *43*(9-A): 3118-3119.

Glasgow, N. Holden, L., McLaughlin, P. & Rowles, R. (1993) Poverty among rural elders: trends, context and directions for policy. *Journal of Applied Gerontology*. *12*(3), 302-319.

Goldsmith, H. F., Puskin, D. S. & Stiles, D. J. (1993) *Improving the operational definition of* "rural areas" for federal programs. Federal Office of Rural Health Policy, Washington, DC.

Gore, S., & Mangione, T. (1983). Social roles, sex roles, and psychological distress: Additive and interactive models of sex differences. *Journal of Health and Social Behavior*, *24*, 300-312 Greenberg, M. R., Carey, G. W. & Popper, F. J. (1987) Violent death, violent states, and American youth. *Public Interest*, *87*, 38-48.

Grieshop, J. I., Villanueva, N. E. & Stiles, M. C. (1994). Wash day blues: Secondhand exposure to agricultural chemicals. *The Journal of Rural Health*, *10*(4), 247-257.

Gruber, D. (1996)Similar issues - different regions: addressing the unique needs of women and children. *Innovations Newsletter*, 2.

Gunderson, P., Donner, D., Nashold, R., Salkowicz, L., Sperry, S., & Wittman, B. (1993) The epidemiology of suicide among farm residents or workers in five north-central states, 1980 - 1988. *American Journal of Preventive Medicine*, *9*, 26-32.

Gwinn, M. & Wortley, P.M. (1996) Epidemiology of HIV infection in women and newborns. *Clinical Obstetrics and Gynecology*, *39*(2), 292-3004.

Hannan, R. W. (1998). Intervention in the coal fields: Mental health outreach. *Rural Community Mental Health*, 24, 1–3.

Hanson, C. M. (1991). The 1990s and beyond: Determining the need for community health and primary care nurses for rural populations. *The Journal of Rural Health*, 7(1), 413-426.

Hargrove, D. S., & Breazeale, R. L. (1993). Psychologist and rural services: Addressing a new agenda. *Professional Psychology: Research and Practice*, 24, 319-324.

Hauenstein, E. J. & Boyd, M. R. (1994). Depressive symptoms in young women of the Piedmont: Prevalence in rural women. *Women and Health*, 21(2/3), 105-123.

Herek, G. M. (1995). Psychological heterosexism in the United States. In A. R. D'Augelli & C. J. Patterson (Eds.), *Lesbian, gay and bisexual identities over the lifespan: Psychological perspectives* (pp. 321-346). New York: Oxford University Press.

Hertsgaard, D. & Light, H. (1984). Anxiety, depression, and hostility in rural women. *Psychological Reports*, *55*, 673-674.

Hicks, L. L. (1990). Availability and accessibility of rural health care. *The Journal of Rural Health*, *6*, 485-506.

Hill, C.E.& Fraser, G.J. (1995) Local knowledge and rural mental health reform. *Community Mental Health Journal*, *31*, 553-568.

Holmes, R., Fawal, H., Moon, T. D., Cheeks, J., Coleman, J., Woernle, C. & Vermund, S. H. (1997). Acquired Immunodeficiency Syndrome in Alabama: Special concerns for Black women. *Southern Medical Journal*, *90*(7), 697-701.

Hoyt, D. R., Conger, R. D., Valde, J. G., & Weihs, K. (1997). Psychological distress and help seeking in rural America. *American Journal of Community Psychology*, *25*, 449–470.

- Hoyt, D., O'Donnell D., & Mack, K. Y. (1995). Psychological distress and size of place: The epidemiology of rural economic stress. *Rural Sociology*, *60*, 707–720.
- Hughes, D. & Rosenbaum, S. (1989). An overview of maternal and infant health services in rural America. *The Journal of Rural Health*, *5*(4), 299-319.
- Human, J. & Wasem, C. (1991). Rural mental health in America. *American Psychologist*, 46(3), 232-243.
- Hunter, M., & Windle, C. (1991). NIMH support of rural mental health. *American Psychologist*, 46(3), 240-3.
- Ivey, S.L., Scheffler, R., & Zazzali, J.L. (1998). Supply dynamics of the mental health workforce: Implications for health policy. *Milbank Quarterly*, 76, 25-58.
- Jensen, J. (1981). With these hands: Women working on the land. Old Westbury, NY: Feminist Press.
- John, L. (1998). San Francisco Medical Society Mastectomy Update: The Good, the Bad and the Beautiful. http://www.sfms.org/sfm/sfm998j.htm
  - Kimmel, W. A. (1992). Rural mental health policy issues for research: A pilot exploration.
- Rockville, MD: National Institute of Mental Health, Office of Rural Mental Health Research.
- Khojasteh, A., Westhoff, D., Hackman, A., & Stone, J. (1999) Patient viewpoints on mastectomy (M) versus lumpectomy (L) for breast cancer (BC) A survey from the rural area.. *Capitol Comprehensive Cancer Care Clinic and St. Mary Health Center, Jefferson City, Vol.153* (No. 22).
- Korczyk, S.M. (1994). Making managed health care work in rural America (A report from the Office of Rural Health Policy). Rockville, MD: HRSA, PHS, DHHS.
- Linn, J. G., Husaini, B. A., Whitten-Stovall, R. & Broomes, L. R. (1989). Community satisfaction, life stress, social support, and mental health in rural and urban southern Black communities. *Journal of Community Psychology*, *17*, 78-88.

Lishner, D. M., Richardson, M., Levine, P. & Patrick, D. (1996). Access to primary health care among persons with disabilities in rural areas: A summary of the literature. *The Journal of Rural Health*, *12*(1), 45-53.

Little, D.N., Hammond, C., Kollisch, D., Stern, B., & Dietrich, A.J. (1998). Referrals for depression by primary care physicians. A pilot study. Journal of Family Practice, 47, 375-377.

Liu, T. & Waterbor, J. W. (1995). Declining use of firearms to commit suicide in Alabama in the 1980s. *Omega*, 30(2), 145-153.

Mainous, A.G. & Matheny, S. C. (1996) Rural human immunodeficiency virus health service provision: Indications of rural-urban travel for care. Archives of Family Medicine, 5, 469-472.

Mainous, A. G., Neill, R.A. & Matheny, S.C. (1995) Frequency of human immunodeficiency virus testing among rural U.S. residents and why it is done. *Archives of Family Medicine*, 4, 41-45.

McCoy, C. B, Metsch, L. R,& Inciardi, J. A. (1996) Sex, drugs, and the spread of HIV/AIDS in Belle Glade, Florida. *Medical Anthropology Quarterly*. *10*, 83-93

McDuffie, H. H. (1994). Women at work: Agriculture and pesticides. *Journal of Occupational Medicine*, *36*(11), 1240-1246.

McGrath, E., Keita, G. P., Strickland, B. R., & Russo, N. (Eds.). (1990). Women and depression: Risk factors and treatment issues. Washington, DC: American Psychological Association.

Mansfield, P., Preston, D. & Crawford, C. (1988). Rural-urban differences in women's well-being. *Health Care for Women International*, *9*(4), 289-304.

Meares, A. C. (1997). Making the transition from conventional to sustainable agriculture: gender, social movement participation, and quality of life on the family farm. *Rural Sociology*, 62(1), 21-47.

Meyer, H. (1990). Rural America: Surmounting the obstacles to mental health care. *Minnesota Medicine*, 73(8), 24-31.

Miller, R.S., Green, L.A., Nutting, P.A., Petersen, L., Stewart, L., Marshall, G., & Main, D.S. (1995) Human immunodeficiency virus seroprevalence in community-based primary care practices, 1990-1992: A report from the Ambulatory Sentinel Practice Network. *Archives of Family Medicine*, 4(12), 1042-1047

Mohatt, D. F. (1997) *Access to Mental Health Services in Frontier Areas: Letter to the Field, No.4*, Nebraska Department of Health and Human Services

Mohatt, D., & Kirwan, D. (1995). *Meeting the challenge: Model programs in rural mental health*. Rockville, MD: Office of Rural Health Policy.

Monsey, B., Owen, G., Zierman, C., Lambert, L., & Hyman, V. (1995) What Works in *Preventing Rural Violence*. St. Paul, MN: Amherst H. Wilder Foundation.

Muller, C. F. (1990). Health care and gender. New York: Springer Publishing Company.

Murray, J. D. & Keller, P. A. (1991). Psychology and rural America: Current status and future directions. *American Psychologist*, 46(3), 220-231.

National Commission on AIDS (1992) *AIDS in Rural America*. Paper prepared by the National Commission on AIDS. Washington, DC.

National Center for Health Statistics. (1993). *1989 National Health Interview Survey* (CD-ROM). Washington D.C.: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention.

National Center for Injury Prevention and Control (1998) *Homicide and suicide among Native Americans, 1979 - 1992: Violence Surveillance Summary Series, No. 2.* 

## Http://ftp.CDC.gov/ncipc/whtsnew/natam.htm.

National Low Income Housing Commission (1998) Women and housing.

## Http://www.nilhc.org/backgrd3.htm#rural.

National Rural Health Association (1997) *HIV/AIDS in Rural America: An Issue Paper Prepared by the National Rural Health Association*. Baltimore, MD: Office of Research Development, HRSA, PHS, DHHS

National Rural Health Association (1998) Facts and figures. *Rural Clinician Quarterly*, 8(1), 5

Navin, S., Stockum, R. & Campbell-Ruggard, J. (1993) Battered women in rural America, *Journal of Humanistic Education and Development*, 32, 9-16.

Nosek, M., Howland, C., Young, M. (1997). Abuse of women with disabilities: Policy implications. *Journal of Disability Policy Studies*, *8*, 157-176.

Nosek, M., Rintala, D., Young, M. (1997). *National study of women with physical disabilities*. Houston: Baylor College of Medicine, Center for Research on Women with Disabilities.

Ortega, S. T., Johnson, D. R., Beeson, P. G., & Craft, B. (1994). The farm crisis and mental health: A longitudinal study of the 1980's. *Rural Sociology*, *59*, 598–619.

Philbrick, J.T., Connelly, J.E., & Wofford, A.B. (1996). The prevalence of mental disorders in rural office practice. *Journal of General Internal Medicine*, 11, 9-15

Ponthier, P. C. (1991). Demythologizing rural mental health. *Archives of Psychiatric Nursing*, 5(3), 119-120.

Reed, D. A. (1992). Adaptation: The key to community psychiatric practice in the rural setting. *Community Mental Health Journal*, 28(2), 141-154.

Richardson, H. (1988). The health plight of rural women. Women & Health, 12, 41-54.

Robins, L.N. & Regier, D.A. (Eds.). (1991) *Psychiatric disorders in America: The Epidemiologic Catchment Area Study*. New York: The Free Press.

Rock, S. M. & Straub, L. A. (1994). Birth outcomes to rural Illinois residents: Is there a crisis? *The Journal of Rural Health*, *10*(2), 122-130.

Rogers, C. C. (1997). *Changes in the social and economic status of women by*metro-nonmetro residence. Rural Economy Division, Economic Research Service, United States

Department of Agriculture. Agriculture Information Bulletin No. 732.

Rosmann, M. R., & Delworth, U. (1990). Clinical and community perspectives on the farm crisis. *The Clinical Psychologist*, *10*, 10-16.

Rost, K., Smith, G. R. & Taylor, J. L. (1993). Rural-urban differences in stigma and the use of care for depressive disorders. *The Journal of Rural Health*, *9*(1), 59-62.

Rost, K., Wherry, J., Williams, C., & Smith, Jr., G. R. (1992) *Depression in rural primary care practices: Treatment and outcome*. National Institute of Mental Health mental health research conference on mental health problems in the general health care sector. Washington, DC: National Institute of Mental Health.

Rost, K., Williams, C., Wherry, J. & Smith, Jr., G. R. (1995). The process and outcomes of care for major depression in rural family practice settings. *The Journal of Rural Health*, *11*(2), 114-121.

Rost, K., Zhang, M., & Fortney, J.C. (1995) *One year outcomes among untreated depressed individuals: Implications for outreach efforts*. National Institute of Mental Health mental health services research conference. Washington, DC: National Institute of Mental Health.

Rowland, D. & Lyons, B. (1989) Triple jeopardy: Rural, poor, and uninsured. *Health Services Research*, 23, 975-1004.

Rozmus, C. & Edgil, A. E. (1993). Rural women's knowledge of and attitudes toward Acquired Immune Deficiency Syndrome. *Health Care for Women International*, *14*, 301-309.

Rumley. R. L., Shappley, N.C., Waivers, L.E., & Esinhart, J.D. (1991) AIDS in rural eastern North Carolina - patient migration: A rural AIDS burden. *AIDS*, *5*(11), 1373-1378

Sachs, C. (1996). *Gendered fields: Rural women, agriculture, and environment*. Boulder, CO: Westview Press.

Scholl, K. (1983). Farm women's triad of roles. Family Economics Review, 1, 10-15.

Schwenk, F. N. (1994). Income and consumer expenditures of rural elders. *Family Economics Review*, 7, 20-27.

Sears, S. F., Danda, C.E., & Evans, G.D. (1999).PRIME-MD and rural primary care: Detecting depression in a low-income rural population. *Professional Psychology: Research and Practice*, *30*, 357-360.

Seccombe, K. (1995) Health insurance coverage and use of services among low income elders: Does residence influence the relationship? *Journal of Rural Health*, 11(2), 86-97.

Seekins, T., Innes, B. & Maxon, N. (1998). *An Update on The Demography of Disability*. Missoula: University of Montana, Rural Institute on Disabilities.

Serrato, C., & Brown, R. (1992). Why do so few HMOs offer Medicare risk plans in rural areas? (Report). Baltimore, MD: Office of Research Development, HRSA, PHS, DHHS Skatrud, J. L. (1996). Rural adolescent pregnancy project: Executive summary. Chapel Hill, NC.

Strickland, J. & Strickland, D. L. (1996). Barriers to preventive health services for minority households in the rural south. *The Journal of Rural Health*, *12*(3), 206-217.

Striegel, M. R. (1994). Sustainable agriculture and its influence on life satisfaction of farm women. Unpublished master's thesis, The University of Iowa, Iowa City, IA.

Substance Abuse and Mental Health Services Administration (1997). *Rural Mental Health Providers National Mental Health Services Knowledge Exchange Network*, Washington: DC. (October,1997).

Summer, L. (1991). *Limited access: Health care for the rural poor*. Washington, DC: Center on Budget and Policy Priorities.

Susman, J.L., Crabtree, B.F., & Essink, G. (1995). Depression in rural family practice. Easy to recognize, difficult to diagnose. *Archives of Family Medicine*, *4*, 427-431.

United States Bureau of the Census. (1980). *Census of population*. Washington, DC: Government Printing Office.

United States Bureau of the Census. (1990). *General population characteristics*. Washington, DC: Government Printing Office.

United States Bureau of the Census. (1991). *General population characteristics*. Washington, DC: Government Printing Office.

United States Congress, Office of Technology Assessment. (1990). *Health care in rural America*. OTA-H-434. Washington, DC: United States Government Printing Office.

United States Congress, Office of Technology Assessment. (1995). *Impact of health reform on rural areas: Lessons from the states*. Washington, DC: Author.

United States Department of Agriculture. (1997). *Census of agriculture*. Washington, DC: Government Printing Office.

United States Department of Agriculture (1998) *Metro and nonmetro income data based on census information*. Http://www.usda.gov/news/pubs/fbook98/ch4e.htm.

United States Department of Health and Human Services. Mental Health (1999) A Report of the Surgeon General—Executive Summary. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health...

United States Department of Justice, Violence Against Women Grants Office (1997)

Domestic Violence and Stalking: The Second Annual Report to Congress Under the Violence

Against Women Act, Washington, DC: Office of Justice Programs - United States Department of

Justice.

United States Department of Justice. (1998) *Advance release: Violence against women*. Http://www.vix.com/pub/men/battery/studies/violence-against-women.html.

United States Senate. (1988). *Report of the Special Committee on Aging*. Washington, DC: U.S. Government Printing Office.

Van Hook, M.P. (1996). Challenges to identifying and treatment women with depression in rural primary care. *Social Work Health Care*, *23*, 73-92.

Wagenfeld, M. O. & Buffum, W. E. (1983). Problems in, and prospects for, rural mental health services in the United States. *International Journal of Mental Health*, 12(1-2), 89-107.

Wagenfeld, M. O., Goldsmith, H. F., Stiles, D., & Manderscheid, R. W. (Eds.). (1988). Inpatient mental health services in metropolitan and non-metropolitan counties. *Journal of Rural Community Psychology*, *9*, 14-16.

Wagenfeld, M. O., Murray, J. D., Mohatt, D. F., & DeBruyn, J. C. (1993). *Mental health and rural America:* 1980 - 1993. Office of Rural Health Policy.

Wagenfeld, M. O., Murray, J. D., Mohatt, D. F., & DeBruyn, J. (Eds.). (1994). *Mental health and rural America: An overview and annotated bibliography 1978-1993*. Washington, DC: U.S. Government Printing Office

Weissman, M. M., & Klerman, G. L. (1987). Gender and depression. In R. Formanek & A. Gurian (Eds.), *Women and depression: A lifespan perspective*. New York: Springer Publishers Whipple, V. (1987) Counseling battered women from fundamentalist churches. *Journal of Marital and Family Therapy*, *13*(3), 251-258.

Whitener, L. (1996). Rural mental health care. *The Journal of Rural Health*, 12(3), 235-239.
Wilkinson, K. P. (1984). Rurality and patterns of social disruption. *Rural Sociology*, 49, 23-36.

Women's Rural Advocacy Programs (1998) *Rural battered women*. <u>Http://www.rea-alp.com/-ymwcwrap/rural.htm.</u>

Yoder, D. R. (1980) Spouse assault: A community approach. *Human Services in the Rural Environment*, 5(2), 25-28.