Substance Abuse in Rural Pennsylvania:
Present and Future

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The Center for Rural Pennsylvania is a bipartisan, bicameral legislative agency that serves as a resource for rural policy within the Pennsylvania General Assembly. It was created in 1987 under Act 16, the Rural Revitalization Act, to promote and sustain the vitality of Pennsylvania's rural and small communities.

Introduction

The focus of this project was to study the current status and trends in substance use and treatment in rural Pennsylvania to better understand present needs for prevention and

The conclusions reached below are a general rank ordering of the dangers represented by various drugs being used. Several variables were considered in this ranking, including the degree of use both nationwide and in Pennsylvania, changing trends in use, the toxicity and addictive liability of the drug in question, and the degree to which it represents a greater concern for rural communities both nationwide and within Pennsylvania.

1. Alcohol represents a major public health concern because of its widespread use and the social and health related consequences of that use. Continued vigilance regarding alcohol abuse in Pennsylvania is especially warranted as it is the most commonly used drug among the state's youth and use levels are above those seen nationally. Moreover, alcohol use and associated problems should be of particular focus in rural areas where use rates are highest on some measures, such as binge drinking.
2. Like alcohol, tobacco products remain a substantial problem because of their degree of use. While both cigarette and smokeless tobacco use have shown recent declines, the decreases appear to be slowing (cigarettes) or have stopped (smokeless tobacco). Cigarette smoking in Pennsylvania is the second most common drug used by youths and their use is above the national average across most age groups. Given that both cigarette smoking and the use of smokeless tobacco products show higher levels of use in rural communities, the use of tobacco products within rural regions remains a point of considerable concern.
3. Heroin use has been relatively low and stable across population densities for the last few years. However, it is viewed by law enforcement as the number one drug threat in Pennsylvania. Heroin appears to be readily available throughout the state and has recently become responsible for a growing number of treatment admissions in the state. Once an urban problem, heroin can now be found causing problems in many communities across the state.
4. Methamphetamine has shown some recent declines in use nationally, but its spread across Pennsylvania is of growing concern. Production is greatest in rural regions of the state and many believe its spread from rural regions, especially the Northwestern corner of the state, is imminent. Methamphetamine is of grave concern both because of its harmful effects on the user and the dangers associated with its production.
5. Cocaine and crack cocaine use remain relatively stable and lower than in the later part of the last decade, though some data suggest their use may be increasing among the state's youth. However, it now appears that rural communities are more susceptible than ever to the problems posed by cocaine and crack cocaine. Law enforcement has designated cocaine as a drug of major concern because of its availability and extent of use. The degree of threat posed by cocaine and crack is magnified by the violence associated with the cocaine and crack trade.
6. Nationwide OxyContin and other diverted pharmaceuticals have shown recent increases in use. Use of diverted pharmaceuticals in Pennsylvania is also high and shows similar rates to those observed nationally. The use of these drugs appears somewhat more concentrated in rural areas and the number of treatment admissions for their use has been rising in Pennsylvania, where law enforcement views it as moderately to highly available.
7. Recent data show high school seniors in Pennsylvania drink, smoke, and use other drugs more than their counterparts across the country. They are also more willing to try alcohol and drugs, and drive under the influence of alcohol or marijuana than 12th graders nationally. Perhaps most alarming is the rate of binge drinking reported among these students, a behavior typically highest among those in rural areas.
8. Marijuana use is widespread, though it has shown recent decreases in Pennsylvania and nationwide. In Pennsylvania, marijuana use ranks third among the drugs used by adolescents, yet statewide use appears to be below the national average on most measures. While readily available, though perhaps less in rural areas, marijuana is viewed by law enforcement as less of a threat than cocaine and heroin.
9. Inhalants are emerging as a class of drugs. They are the one of the few drugs showing the clearest evidence of increased use in recent years. Moreover, leading indicators of continued use, such as perceived risk, suggest this trend may continue. Use of inhalants currently ranks fifth in prevalence among Pennsylvania's youth. Moreover, inhalant use among rural communities is as high as in urban areas.
10. The threat posed by "club drugs," like ecstasy and GHB, is serious, but less than the dangers associated with

Review of literature on cost effectiveness

Attempting to prove whether or not alcohol and substance abuse treatment is a solid investment is typically measured in one of three ways.

levels of care. This model, which is used as the standard in Pennsylvania, emphasizes using outpatient services whenever possible, and limiting residential and inpatient stays to shorter durations. Most data suggest that outpatient treatment, and in one study even the more costly outpatient detoxification services (Hayashida, 1989), are effective and cheaper than inpatient stays. Pennsylvania's Intensive Outpatient Programs (IOPs) have not been studied. However, this program also advocates effective treatment for less money than an inpatient treatment episode. For many clients, it is also preferable because they can remain at home or work during the evenings rather than living in a hospital or residential facility.

One final question explored by Harwood and colleagues was treatments for special populations. The research found that women benefited from treatment as much as men, with cost benefits slightly lower due to women's lower crime rates both during and after treatment. Veterans, treated at the Department of Veterans Affairs system, have been extensively studied, and this research led to changing most 28-

larger role in treating clients in rural areas. Approaches that attempt to remove barriers, either through providing transport or other material supports or providing community education about treatment for alcohol and drug problems as a gift given to family and friends (rather than weakness or stigma) can be compared to groups of clients who receive "treatment as usual."

3. Many of the large scale studies reviewed offer individual treatment sessions, which can be too costly to implement in many centers. Individual sessions may work better than group sessions, although smaller centers may find it difficult to provide such a wide array of approaches due to limited resources and staff. However, this question has not been researched extensively. Rural centers that adapted a program, turning it into a group format, could collect outcome data to see if these more efficient group sessions translate into behavior change. In this case, the cost outlay is not too expensive given that many centers do have chart data that would include drug testing results for participating clients and could review those data to gauge program effectiveness.

Prevention programs

The Substance Abuse and Mental Health Services Administration (SAMHSA) published several monographs regarding substance abuse prevention programs (USDHHS/SAMHSA, 2002) and has created a website providing information about model programs and the criteria used to define these programs.

All SAMHSA prevention programs that have been implemented in rural settings were reviewed. A few of these appeared to have possibilities for rural Pennsylvania communities. One program, Across Ages, is a school and community-based drug prevention program aimed at youth 9 to 13 years. The goal is to strengthen bonds between adults and youth and create opportunities for positive community involvement. The program pairs older adult mentors (age 55 and above) with young adolescents. Given that Pennsylvania has a significant aging population, a program like this might be quite feasible and desirable. One warning from the creators of the program was that adolescents should only be paired with adults they do not already know well.

All Stars™ is a school- or community-based program intended to delay and prevent high-risk behaviors in middle school-age adolescents, including substance use, violence, and premature sexual activity. The emphasis is on fostering development of positive personal characteristics. All Stars includes nine to 13 lessons during its first year, and seven to eight booster lessons in its second year. The program is based on strong research that has identified the critical factors that lead young people to begin experimenting with substances and participating in other high-risk behaviors. Given the positive outcomes found with this program, it would appear to be a good alternative to DARE. However, it may be cost and time intensive to implement an intervention at the school or community level over several years.

Creating Lasting Family Connections offers a family strengthening, substance abuse, and violence prevention model. Program results, documented with children 11 to 15 years, showed significant increases in children's resistance to the onset of substance use and reductions in use of alcohol and other drugs. The program seems to focus on resiliency issues, and includes the entire family rather than just the individual child. However, it may be more difficult to recruit and retain families, when compared to interventions that reach children in school settings. The plus for rural communities would be that family oriented prevention may ultimately foster more large scale changes, including less use of more expensive services, such as drug and alcohol treatment.

Another program that focuses on the family would appear to be far less costly to implement. Family Matters is a home-based program designed to prevent tobacco and alcohol use in early adolescence. The program is delivered through four booklets. These are mailed to the home and then health educators make follow-up telephone calls to parents. The booklets include readings and activities designed to help families explore general family characteristics and family tobacco- and alcohol-use attitudes and characteristics that can influence adolescent substance use.

Although rural communities appear to use computers and the internet less frequently, those numbers are likely to increase in the future. One step up in terms of sophistication and technology is the Parenting Wisely intervention. This is a self-administered, computer-based program teaching parents and 9- to 18-year-old children skills to combat risk factors for substance use and abuse. The interactive and nonjudgmental CD-ROM format accelerates learning, and parents can use new skills immediately. The program has shown positive results regarding avoidance or reductions in alcohol use among participants.

One model program, developed in Pennsylvania, was aimed at a very specific population and may not be ideal for the general population or rural areas where privacy issues may be a significant concern. Trauma Focused Cognitive Behavior Therapy (TF-CBT) is designed to help children, youth, and their parents overcome negative effects of traumatic life events including child sexual or physical abuse; traumatic loss/death of a loved one; domestic, school, or community violence; and exposure to disasters. It integrates cognitive and behavioral interventions with traditional child abuse therapies. The focus is on enhancing children's interpersonal trust and empowerment and targeting any Posttraumatic Stress Disorder (PTSD) symptoms as well. Significant reductions in alcohol and substance use were seen as a byproduct of the intervention.

In summary, there are a large number of both treatment and prevention intervention methods which are science-based and considered to be effective. However, it is important to note that, to date, almost none of these interventions have been researched in rural areas, including Pennsylvania.

In general, the rural Pennsylvania providers who responded to the survey tended to have the following characteristics: female; white; college educated; not doctors, psychologists or social workers; credentialed in addiction counseling; in the field for six years or less; at their current center for three years or less; attempt to deliver a very wide array of services and treatments; committed and hard working despite lack of funding and other resources; and familiar with and use evidence-based treatments.

This group also tended to have lower salaries, statewide, compared to other health service professions, such as nursing, occupational therapy, and other professions based in hospitals or local health clinics.

Policy Considerations

Based on the review of trends, research literature and survey data, the researchers offered the following considerations:

1. Statewide data for both rural and urban areas on outcomes assessment and cost-effectiveness are needed. The data should include alcohol and drug use measures and at least one-year of follow-up. Undertaking this project, and comparing rural versus urban areas would make Pennsylvania a model state in terms of its approach to alcohol and substance abuse treatment and prevention.
2. Pennsylvania, beginning with BDAP, should consider viewing rural as a demographic variable, such as gender and ethnicity. Statistical comparisons of rural versus metropolitan areas or rural versus urban clients are lacking in the research literature and in statewide reports. It would be important to look across age groups as well. For example, a focus on adolescents and young adults may aid in later prevention efforts, but Pennsylvania also has an aging population. Therefore, it will be critical to collect data across life spans. Community specific data may also assist BDAP and the state in forming initiatives to target specific problem areas or special populations.
3. The use of evidence-based, empirically supported "model" treatments and prevention programs should continue to be encouraged. However, both SCA members and rural treatment staff reiterated in their survey responses that it is often not all clear how well and how easily many model programs - generally developed in more urbanized areas - translate to rural settings. It also unclear, based on the data collected through this research, if practitioners truly adhere to these generally manual-based treatments.
4. Accessibility and transportation to alcohol and drug abuse services or prevention programs appear to be major impediments for clients. Rural centers need both funding and creativity to deal adequately with these issues. Options may include:
   - Piggybacking on existing transportation within a community;
   - Offering mobile therapy, similar to home or community visits provided by the Visiting Nurses Association, bloodmobiles or mobile crisis units;
   - Widening the community net by educating physicians, clergy, and mental health providers about routine screenings and referrals;
   - Offering bibliotherapy (readings and workbooks on addiction or prevention) to clients by delivering materials or videotapes/DVDs and other home study materials; and
   - Using Internet resources where clients would "meet" online, attend support groups, and receive psychoeducation or therapy.
5. Confidentiality, stigma and stoicism are important issues in rural areas, based on the comments provided by both SCA and treatment center survey respondents. Public education and interventions may need to be designed to address specific cultural issues within each community, as a one-size-fits-all approach may not be successful. Options include:
   - Enlisting "community experts" who are in recovery from alcohol or drug problems, and willing to provide public health information and referrals on an informal basis;
   - Using treatment centers and support groups, such as Alcoholics Anonymous, more often if they are housed with other types of medical offices, businesses, religious or spiritual centers, or even shopping malls (McLellan, O'Brien, Lewis, & Kleber, 2000);
   - Presenting alcohol or substance use services to individuals in the community as a positive step for individuals and their families.
6. Attracting and retaining quality staff at treatment centers is critical. As some areas of the state have been designated as medical shortage areas, a similar approach could be advocated regarding the training and retention of drug and alcohol staff.
7. Continuing education is important for staff. Rural treatment directors indicated their desire to offer continuing education as incentives; however, they had no budget allocation to fund the idea. Survey respondents also felt that more continuing education information should be present.
8. More partnerships with universities would be beneficial. The state should encourage colleges and universities to become more involved in their community's treatment and prevention system in positive ways. There is a substantial subset of college and university faculty who possess expertise in substance abuse issues, epidemiology, medical research, and the economics of cost effectiveness and healthcare utilization models. These experts should be encouraged to contribute to rural programs by aiding in study design, grant writing, data analysis and many other activities. Encouraging and perhaps providing a jump-start to long-term partnerships between these entities may prove useful and cost effective.

9. Consider expanding the buprenorphine (pharmacotherapy for opiate dependence) program in rural areas as access to other resources, such as methadone maintenance, is extremely limited. The state may consider funding research that looks specifically at this treatment, how best to recruit physicians in rural areas to join the program, and to employ standardized methods to assess the efficacy and cost effectiveness of the approach.

10. For opiate dependent clients who do not qualify for buprenorphine treatment, or do not have that option available in their area, referrals for methadone maintenance, methadone detoxification, or naltrexone often require traveling to another more urban county to receive treatment. If daily dosing is required, clients may spend up to two to four hours per day traveling for services. Transportation problems and the potential impact on a client's ability to find or maintain employment are key hurdles for rural people requiring opiate treatment services. It is not cost effective to provide a methadone or opiate specialty program in every county. However, conflicts could be reduced and clients would be more likely to remain in treatment if they are able to earn "take homes." This method allows clients to take home one or more doses of methadone or other pharmacotherapy contingent on the clients' number of abstinent/drug free days. Research on this method indicates it may keep clients in treatment longer, and reduces costs.

11. Study the impact of DUI/DWI programs in rural areas in terms of the rate of problem alcohol and drug use, recidivism, and public safety.

12. Community-based mutual support groups such as Alcoholics Anonymous are available in most rural communities, although there are generally fewer of these groups when compared with urban settings. Given that the national overall trend is toward treatments that are as brief as possible, with only the most severe problems requiring inpatient, residential or long term outpatient care, it becomes more critical to ensure that rural clients are hooked into ongoing community support systems. As these groups are also free, there is no cost to the state of Pennsylvania, the substance abuser or mental health systems in the community.

13. While it was beyond the scope of this research, it is important to note that alcohol and substance use are systematic problems involving a wide array of both risk and protective variables. The treatment and prevention systems, discussed in this paper, are only one key aspect. However, expansion of the drug court model, and the provision of adequate assessment and treatment services in jail or in prison facilities would also appear to be sound investments. The use of a community drug court system generally remands clients to the appropriate level of treatment services and gauges their progress, avoiding the high expenses associated with jail or prison stays. Simple environmental changes such as seatbelt usage, server training for bar employees, taxes on alcohol and cigarettes all seem to reduce usage, increase public safety, or even provide revenue (taxes). All of these aspects must bh jail or prison sl posoc

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