

Substance Use and Rural Populations¹

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Introduction

The United States has experienced an unprecedented rise in overdose deaths between 2019 and 2020, which coincided with the onset of the COVID-19 pandemic. There has been a 25% increase in overdose deaths from 2019 to 2020 (Centers for Disease Control and Prevention, 2021). Deaths due to fentanyl, a synthetic opioid, have been indicated as a leading contributor to this increase, with an increase of 40% in overdose deaths from 2019 to 2020. The U.S. Department of Health and Human Services now includes reducing drug overdoses as one objective for Healthy People 2030, because the issue is getting worse (Office of Disease Prevention and Health Promotion, n.d.-a). These alarming trends have placed a particular strain on rural populations. Studies show that while rural and urban populations have similar rates of illicit substance use (i.e., cocaine, illicit fentanyl, heroin, and methamphetamines) (Mack et al., 2017), age-adjusted rates of death from fentanyl or other opioid overdoses are higher in rural populations than urban populations (Hedegaard & Spencer, 2021). Social acceptability of some substances such as alcohol, tobacco, or pain medications, and lack of available health and mental health resources have contributed to this increase.

This article aims to describe the impact of substance use on rural communities, to share knowledge of the unique challenges rural populations face, to highlight the need for prevention efforts geared towards adolescents, and to

inform Extension professionals about current UF/IFAS initiatives.

About Substance Use among Youth

Substance use and misuse often begin in adolescence. While substance use may be experimental or infrequent use, substance misuse is chronic and unsuitable use. For teens, substance use and misuse can be associated with: problems in school and disruption of education; chronic and severe health issues; lifelong addiction; delinquency and involvement in the legal system; fragmented relationships; and participation in other risky behaviors such as driving under the influence (Levy & Williams, 2016). Substance use at an early age is also considered a key risk factor for the use and misuse of dangerous illegal substances in adulthood (Jalali et al., 2020). Prevention efforts, especially efforts geared towards teenagers, need to address substance use before substance use begins.

Characteristics That Contribute to Substance Use in Rural Communities

Rural populations face several unique challenges with substance use. Firstly, individuals in rural areas are at a greater risk due to substance availability and social acceptability of

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substance misuse (Keyes et al., 2014). Rural areas may have more access to alcohol, tobacco, and medications, which may normalize substance use. Substance availability and social acceptability may also be associated with financial difficulty within the rural environment (Keyes et al., 2014). For example, unemployment and limited economic opportunity in rural areas contribute to economic difficulties and stress for individuals and their communities. This strain is associated with increased risk of drug use (Keyes et al., 2014).

Secondly, an important risk factor for substance use initiation is the perceived risk of use. The perceived risk of use is influenced by the social acceptability and normality of substance use within a community. If the perceived risk of use is high, individuals are less likely to begin use. As the perception of risk declines, as it has in many rural communities across the country, the initiation and use of substances increases (Pettigrew et al., 2012).

Thirdly, at the community level, a lack of awareness, resources, and providers has made it difficult for community members to access information and services. Rural populations have fewer resources and professionals to assist them (Pettigrew et al., 2012).

Prevention and intervention strategies that are geared toward rural teenagers should address all three of these challenges. The perceived risk of use cannot be addressed without focusing on the presence of substances in the community and the social acceptability of use. Additionally, lack of community awareness, resources, and professionals cannot be addressed without focusing on creating opportunities within the community.

Rural-Focused Prevention Programs

While solutions are complex, substance use is preventable. Youth-serving organizations within a community should work together to implement prevention programs.

Communities without proper health and mental health resources are more vulnerable to substance use risk. Therefore, community support systems that focus on education and promotion of health and well-being are needed to reduce negative health outcomes associated with substance use.

Additionally, change needs to come from within. Both individuals and organizations within the rural community are crucial in the planning, implementation, and evaluation

of activities and programs, because they know what the needs are in their communities.

It is important to research the risk factors for adolescent substance use or resilience in rural settings (Rudzinski et al., 2017). Without proper evidence, it is more difficult to design and implement effective health, mental health, or educational services or programs. This has led to unequal distribution of educational interventions and policy geared towards rural youth (Keyes et al., 2014). Rural communities can lead in this effort by joining university partnerships to implement evidence-based programs, so program effectiveness can be assessed. Residents in rural areas are experts of their communities and can build capacity to deliver programs. University researchers can assist in collecting and analyzing data to assess the effectiveness of these programs.

Lastly, evidence shows that positive youth development programs can reduce risk behaviors in adolescents (Armstrong-Carter & Telzer, 2021). This requires community support for prosocial programs and the involvement of trusted community partners to spread evidence-based programs that are vital to reducing substance misuse among teens.

Example of a Community-University Partnership for Prevention

PROSPER (**P**romoting School-Community-University Partnerships to Enhance Resilience) is a delivery system that uses a community-university prevention model with a dual-program approach for middle school students and families. This evidence-based prevention approach aims to discourage risky behaviors through the promotion of prosocial behavior. PROSPER is operated by land-grant universities and can be implemented with the leadership and assistance of UF/IFAS Extension. PROSPER addresses the four recommendations in the previous section for implementation in rural communities.

1. Community support systems that focus on education and promotion of health and well-being can be effective in mitigating negative health consequences associated with substance use.

PROSPER has been evaluated by experts and is an evidence-based practice (Blueprints for Healthy Youth Development, 2022). This means that PROSPER has been shown to be effective in substance use prevention.

Additionally, it has been recognized by U.S. Department of Health and Human Services. Each part of the program teaches life and family skills, achieving desirable results.

Programs using the PROSPER delivery system use a combination of school-based and family-focused programs. PROSPER is implemented by community-based teams who work together to promote awareness, prevention, and/or intervention. An additional focus is on engaging family, schools, and communities in prevention efforts. This often takes the form of school-based and family-based programs such as Life Skills Training (LST) and Strengthening Families Program (SFP 10-14). LST is grounded in social learning theory, where prosocial behavior is taught, modeled, and implemented. It includes 18 classroom-based lessons for 6th or 7th graders. Learning goals for Life Skills Training include skills for problem solving, decision-making, peer pressure avoidance, and risks associated with drug use. Strengthening Families Program 10-14 is a community-based program that involves both parents and children and focuses on improving family communication and creating a positive family climate.

2. Both individuals and organizations within the rural community are crucial in the planning, implementation, and evaluation of activities and programs, because they know what the needs are in their communities.

The University of Florida is beginning its implementation of the PROSPER delivery system alongside UF/IFAS Extension 4-H professionals in Taylor County and Madison County. PROSPER uses a capacity-building approach, which focuses on effectiveness and sustainability through-out service delivery. In this effort, UF/IFAS Extension professionals are vital. These Extension educators have the knowledge and expertise to successfully deliver programs throughout their counties, which allows for greater outreach and attendance. Extension professionals have recruited other vital community members such as school representatives, public health professionals, parents, youth members, mental health professionals, and religious leaders. A multidisciplinary team approach allows PROSPER to achieve long-term sustainability in terms of community partnership and continuous funding.

3. It is important to study rural communities to learn what works.

It is important for rural communities to evaluate evidence-based programs, such as PROSPER, so they can determine which evidence-based programs are effective (Office of Disease Prevention and Health Promotion, n.d.-b). Results from this research can contribute to policy and intervention to address substance use risk for adolescents in rural settings.

4. Prosocial behavior programs reduce risk behaviors in adolescents. However, these programs are not as prominent in rural areas (Armstrong-Carter & Telzer, 2021).

Prosocial behavior focuses on benefiting oneself and others. Examples of prosocial behavior at the individual level include self-care practices and exercising. Examples at the community level include involvement in teams or organizations and volunteering. Participation of rural youth in prosocial behavior elicited less risky behavior surrounding substance use, and helped to change perceptions about substance use (Carlo et al., 2011). Life Skills and Strengthening Families programs focus on building prosocial behavior and have shown a reduction in substance misuse into emerging adulthood (Partnerships in Prevention Science Institute, 2021).

Summary

Substance use risk is a growing concern in rural populations. Prevention measures can target any age group, but intervention for teenagers can mitigate significant negative health outcomes associated with substance use. The example of PROSPER shows the importance of expanding knowledge of this issue and providing evidence of effective prevention efforts to Extension professionals. This information can help Extension professionals understand why a community capacity-building approach is beneficial to combat substance use in rural populations.

References

Armstrong-Carter, E., & Telzer, E. H. (2021). Understanding Prosocial Development in the Context of Systemic Inequalities in the US and Worldwide. *Current Research in Behavioral Sciences*, 2. <https://doi.org/10.1016/j.crbeha.2021.100040>

Blueprints for Healthy Youth Development. (2022). PROSPER. Blueprints for Healthy Youth Development. <https://www.blueprintsprograms.org/prosper/>

Carlo, G., Crockett, L. J., Wilkinson, J. L., & Beal, S. J. (2011). The Longitudinal Relationships between Rural Adolescents' Prosocial Behaviors and Young Adult Substance Use. *Journal of Youth and Adolescence*, 40(9). <https://doi.org/10.1007/s10964-010-9588-4>

Centers for Disease Control and Prevention. (2021). Substance Use Trend Alert. https://cdn.ymaws.com/www.fdaa.org/resource/resmgr/files/resource_center/March_2021_Trend_Alert-Overd.pdf

Hedegaard, H., & Spencer, M. R. (2021). Urban–Rural Differences in Drug Overdose Death Rates, 1999–2019. 403. <https://doi.org/10.15620/cdc:102891>

Jalali, M. S., Botticelli, M., Hwang, R. C., Koh, H. K., & Kathryn McHugh, R. (2020). The Opioid Crisis: A Contextual, Social-Ecological Framework. *Health Res. Policy Sys.*, 18, 87. <https://doi.org/10.1186/s12961-020-00596-8>

Keyes, K. M., Cerdá, M., Brady, J. E., Havens, J. R., & Galea, S. (2014). Understanding the Rural-Urban Differences in Nonmedical Prescription Opioid Use and Abuse in the United States. *American Journal of Public Health*, 104(2), e52–e59. <https://doi.org/10.2105/AJPH.2013.301709>

Lambert, D., Gale, J. A., & Hartley, D. (2008). Substance Abuse by Youth and Young Adults in Rural America. *The Journal of Rural Health*, 24(3). <https://doi.org/10.1111/j.1748-0361.2008.00162.x>

Levy, S. J. L., & Williams, J. F. (2016). Substance Use Screening, Brief Intervention, and Referral to Treatment. *PEDIATRICS*, 138(1). <https://doi.org/10.1542/peds.2016-1211>

Mack, K. A., Jones, C. M., & Ballesteros, M. F. (2017). Illicit Drug Use, Illicit Drug Use Disorders, and Drug Overdose Deaths in Metropolitan and Nonmetropolitan Areas—United States. *MMWR. Surveillance Summaries*, 66(19). <https://doi.org/10.15585/mmwr.ss6619a1>

Office of Disease Prevention and Health Promotion. (n.d.-a). Reduce drug overdose deaths - Data - Healthy People 2030. U.S. Department of Health and Human Services. Retrieved September 12, 2021. <https://health.gov/healthypeople/objectives-and-data/browse-objectives/drug-and-alcohol-use/reduce-drug-overdose-deaths-su-03>

Office of Disease Prevention and Health Promotion. (n.d.-b). Increase the proportion of adolescents who think substance abuse is risky - SU-R01 – Healthy People 2030. U.S. Department of Health and Human Services. Retrieved September 12, 2021. <https://health.gov/healthypeople/objectives-and-data/browse-objectives/drug-and-alcohol-use/increase-proportion-adolescents-who-think-substance-abuse-risky-su-r01>

Partnerships in Prevention Science Institute. (2021). PROSPER Partnerships. <http://helpingkidsprosper.org/>

Pettigrew, J., Miller-Day, M., Krieger, J., & Hecht, M. L. (2012). The Rural Context of Illicit Substance Offers: A Study of Appalachian Rural Adolescents. *Journal of Adolescent Research*, 27(4), 523–550. <https://doi.org/10.1177/0743558411432639>

Rudzinski, K., McDonough, P., Gartner, R., & Strike, C. (2017). Is there room for resilience? A scoping review and critique of substance use literature and its utilization of the concept of resilience. *Substance Abuse Treatment, Prevention, and Policy*, 12(1). <https://doi.org/10.1186/s13011-017-0125-2>

United States Department of Agriculture. (n.d.). How can USDA help rural communities address the opioid epidemic? <https://www.rd.usda.gov/files/USDAOpioidsResourceInfographic.pdf>