Treatment Episode Data Set

The TEDS Report

July 31, 2012

A Comparison of Rural and Urban Substance Abuse Treatment Admissions

Reducing existing disparities within the American health care system is a key Federal priority.[1] One factor that can impact the types of services offered is population density. In fact, it is known that the urbanization level of a community can impact both the types of services offered and the use of services received, particularly in the area of substance abuse treatment.[1,2] Examining substance abuse treatment admissions in the most urban and most rural areas may help inform prevention, intervention, and expanded treatment efforts for urban and rural communities. For example, it has been demonstrated that urban drug abusers are more likely to use cocaine and heroin, while rural drug abusers report more alcohol, opiate pain reliever, and stimulant use.[3] An enhanced understanding of these types of differences may enable policymakers and treatment providers to direct limited resources more effectively and increase the quality of care received in different geographic contexts.

In Brief

- Rural admissions were younger and less racially and ethnically diverse than urban admissions
- Rural admissions were more likely than urban admissions to report primary abuse of alcohol (49.5 vs. 36.1 percent) or non-heroin opiates (10.6 vs. 4.0 percent); urban admissions were more likely than rural admissions to report primary abuse of heroin (21.8 vs. 3.1 percent) or cocaine (11.9 vs. 5.6 percent)
- Rural admissions were more likely than urban admissions to be referred by the criminal justice system (51.6 vs. 28.4 percent) and less likely to be self- or individually referred (22.8 vs. 38.7 percent)

The Treatment Episode Data Set (TEDS) can be used to explore characteristics of rural and urban admissions at substance abuse treatment entry. In order to identify rural and urban areas, U.S. counties and county equivalents were assigned to one of five urbanization levels according to the classification scheme developed by the National Center for Health Statistics

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(NCHS).[4] In this report, admissions receiving treatment at facilities located in the most rural areas (nonmetropolitan areas without a city, hereafter referred to as "rural") are compared with admissions receiving treatment at facilities located in the most urban areas (large central metropolitan areas, hereafter referred to as "urban"). In 2009, 31.4 percent of all treatment admissions (or 537,489 admissions) received treatment at facilities located in urban areas and 7.2 percent (or 123,807 admissions) received treatment at facilities located in rural areas.[5]

Demographic Characteristics

Urban and rural substance abuse treatment admissions had similar gender distributions, but rural admissions were less racially and ethnically diverse and were younger. Males represented over two thirds of both urban and rural admissions (69.9 and 68.3 percent, respectively) (Table 1). Non-Hispanic Whites accounted for 77.1 percent of rural admissions and 38.1 percent of urban admissions. Over one third of rural admissions (34.2 percent) were under the age of 26 compared to less than a quarter of urban admissions (23.5 percent). More than 6 in 10 urban and rural admissions reported having no health insurance (61.9 and 65.9 percent, respectively).

Rural and urban admissions aged 18 or older differed in educational attainment and employment. Rural admissions were more likely than urban admissions to have a high school education or GED (46.1 vs. 40.7 percent), whereas urban admissions were more likely than rural admissions to have less than a high school education (37.5 vs. 32.7 percent). Rural admissions were more likely than urban admissions to report being employed (32.3 vs. 16.6 percent).

Substances of Abuse

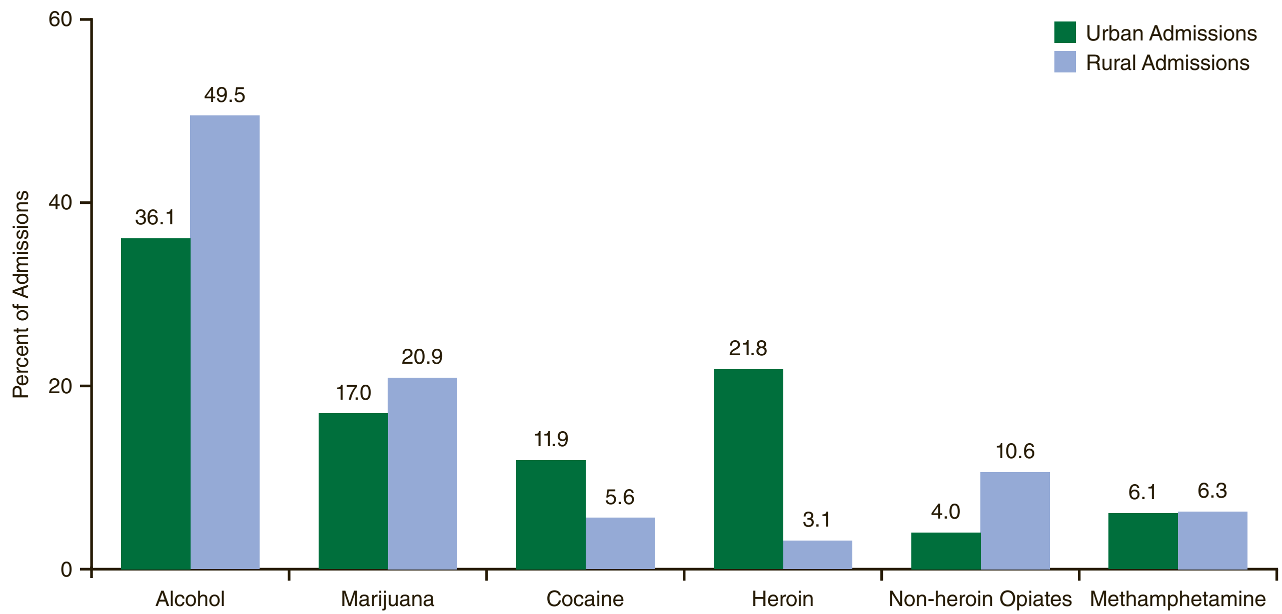
Rural and urban treatment admissions differed by primary substances of abuse and frequency of use at treatment entry. Rural admissions were more likely than urban admissions to report primary abuse of alcohol (49.5 vs. 36.1 percent) or non-heroin opiates (10.6 vs. 4.0 percent); urban admissions were more likely than rural admissions to report primary abuse of heroin (21.8 vs. 3.1 percent) or cocaine (11.9 vs. 5.6 percent) (Figure 1). Urban admissions were almost twice as likely as rural admissions to report daily use of their primary substance of abuse at treatment entry (43.1 vs. 23.5 percent) (Figure 2).

Table 1. Demographic Characteristics among Urban and Rural Admissions Aged 12 or Older: 2009

	Urban Admissions (Percent)	Rural Admissions (Percent)
Gender		
Male	69.9	68.3
Female	30.1	31.7
Race/Ethnicity		
Non-Hispanic White	38.1	77.1
Non-Hispanic Black	33.7	8.7
Hispanic	22.7	6.6
American Indian or Alaska Native	1.3	5.5
Other	4.2	2.1
Age		
Aged 12 to 17	7.1	8.3
Aged 18 to 25	16.4	25.9
Aged 26 to 49	60.6	55.4
Aged 50 or Older	15.9	10.5
Education (Aged 18 or Older)		
Less than High School	37.5	32.7
High School/GED	40.7	46.1
Some College	21.8	21.2
Employment Status (Aged 18 or Older)		
Full Time	11.1	22.3
Part Time	5.5	10.0
Unemployed	37.0	42.6
Not in Labor Force	46.4	25.1
Primary Income Source		
Wages/Salary	18.0	36.8
Public Assistance	11.3	6.3
Disability	4.6	6.2
Other	26.0	22.0
None	40.1	28.7
Health Insurance Status		
None	61.9	65.9

Note: Percentages may not sum to 100 percent due to rounding.
Source: SAMHSA Treatment Episode Data Set (TEDS), 2009.

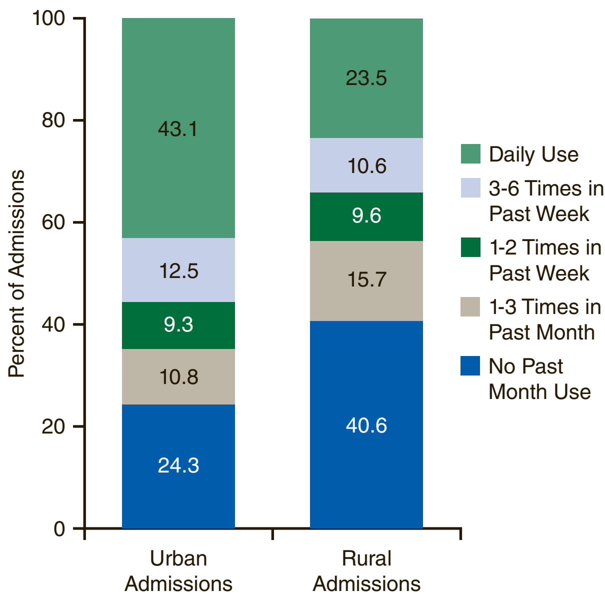
Figure 1. Selected Primary Substance of Abuse among Rural and Urban Admissions Aged 12 or Older: 2009



Note: Percentages may not sum to 100 percent because not all substances are presented.

Source: SAMHSA Treatment Episode Data Set (TEDS), 2009.

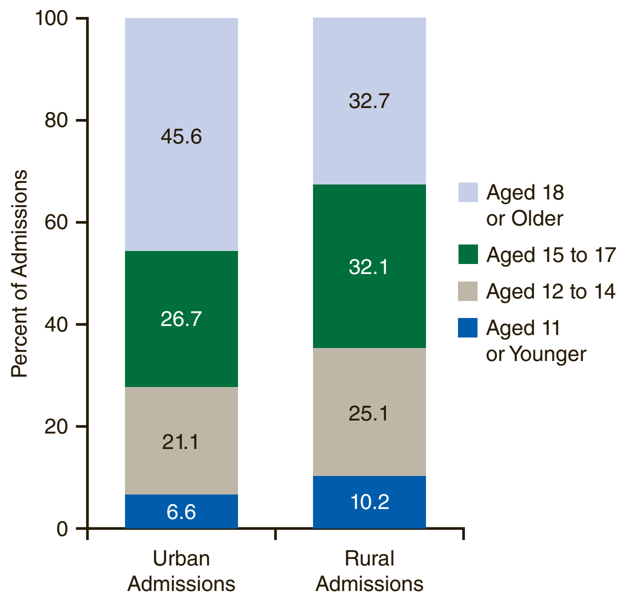
Figure 2. Frequency of Primary Substance Use among Urban and Rural Admissions Aged 12 or Older: 2009



Note: Percentages may not sum to 100 percent due to rounding.

Source: SAMHSA Treatment Episode Data Set (TEDS), 2009.

Figure 3. Age at First Use of Primary Substance of Abuse among Urban and Rural Admissions Aged 12 or Older: 2009



Note: Percentages may not sum to 100 percent due to rounding.

Source: SAMHSA Treatment Episode Data Set (TEDS), 2009.

Age of First Use

Rural admissions were slightly younger than urban admissions when they began using their primary substance of abuse (Figure 3). Compared with urban admissions, rural admissions were more likely to report having initiated their primary substance of abuse between the ages of 15 and 17 (32.1 vs. 26.7 percent) and less likely to report first use at age 18 or older (32.7 vs. 45.6 percent).

Source of Treatment Referral and Treatment Characteristics

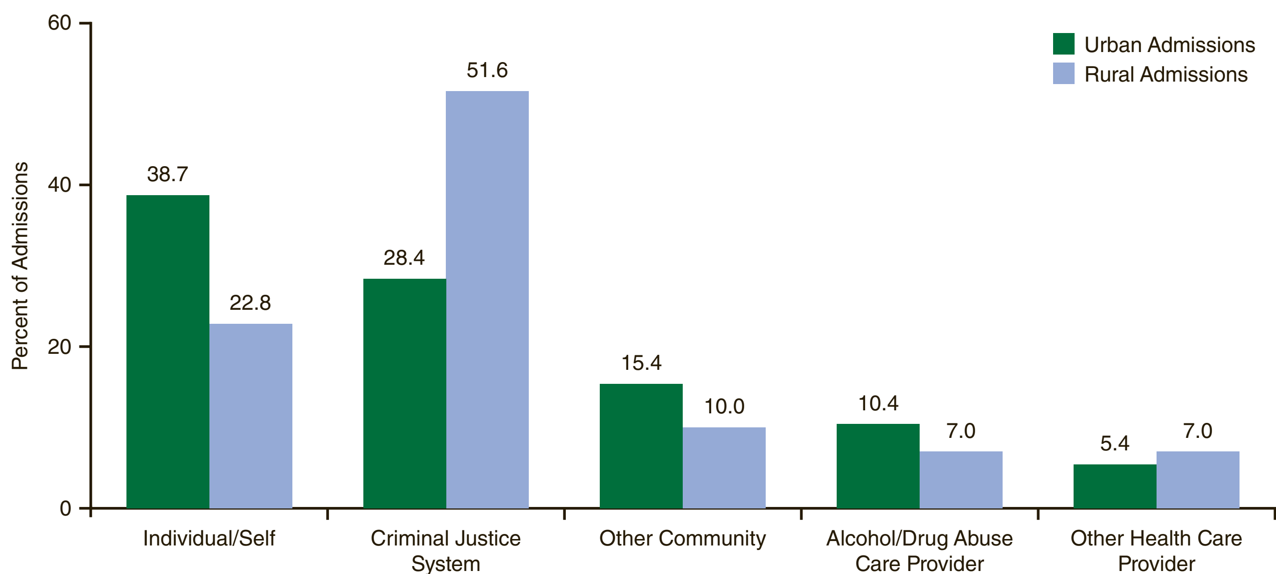
Rural and urban admissions also varied in source of treatment referral, the type of treatment received, and the number of previous treatment admissions. Rural admissions were more likely than urban admissions to be referred by the criminal justice system (51.6 vs. 28.4 percent) and less likely to be self- or individually referred (22.8 vs. 38.7 percent) (Figure 4).

Rural admissions were more likely than urban admissions to receive regular outpatient care (63.2 vs. 43.8 percent) and less likely to receive detoxification treatment (9.4 vs. 27.5 percent). Notably, urban admissions also reported more extensive treatment histories than rural admissions: 14.5 percent reported five or more prior treatment episodes compared with 8.1 percent of rural admissions. These differences related to detoxification and treatment history may reflect the higher proportion of primary heroin abuse among urban admissions relative to rural admissions, since heroin admissions are more likely to receive detoxification services and report multiple prior treatment episodes in comparison with other admissions.[6]

Co-occurring Psychiatric Problems and Living Arrangement

The overall proportions of rural and urban admissions who reported a co-occurring psychiatric problem[7] were similar, but differences were found by living arrangement. Specifically, about 30.1 percent of rural admissions and 27.2 percent of urban admissions reported a

Figure 4. Selected Sources of Referral to Treatment among Urban and Rural Admissions Aged 12 or Older: 2009



Note: Percentages may not sum to 100 percent because not all sources are presented.

Source: SAMHSA Treatment Episode Data Set (TEDS), 2009.

co-occurring psychiatric problem. By living arrangement, urban admissions were nearly 5 times as likely as rural admissions to be homeless (20.9 vs. 4.3 percent).

Discussion

Rural and urban substance abuse treatment admissions differed by nearly every aspect examined in this report (Table 2). These variations are expected given known differences between rural and urban populations, but they suggest a diverse set of needs that must be taken into account when developing effective treatment and prevention programs.

Rural communities may consider focusing scarce public health resources on alcohol, marijuana, and prescription drugs to best address the needs of their populations. Early prevention and intervention efforts in rural areas may help to mitigate future substance dependence and abuse in light of the high rate of adolescent initiation among rural admissions. This may, in turn, alleviate the strain substance abuse and its associated problems (e.g., negative health outcomes, crime) levy on rural substance abuse treatment, health care, and law enforcement systems.

On the other hand, the findings among urban admissions underscore the ongoing importance of culturally appropriate treatment services that target a wide range of substances of abuse. Moreover, treatment in urban areas may be more efficacious if there are services that can address the socioeconomic challenges faced by urban admissions. This is essential given the known differences by race/ethnicity in terms of treatment need, care received, and the value in services that are tailored to address particular needs.[8,9] Specifically, the low rate of employment and high rate of homelessness among urban admissions may reflect the continuing need for employment and housing services, which may be critical for helping these admissions achieve a type of stability that can support a lasting recovery. Finally, the large proportion of urban admissions who initiated their primary substance of abuse as adults points to the need for sustained or additional prevention and intervention efforts targeting older adolescents and young adults in urban areas.

Table 2. Summary of Differences Found among Urban and Rural Admissions: 2009

Rural treatment admissions are MORE likely than urban treatment admissions to:

- Be non-Hispanic White
- Have wage/salary as primary income source
- Be referred to substance abuse treatment through the criminal justice system
- Report no past month use of their primary substance of abuse
- Report full-time employment
- Report primary alcohol abuse
- Report primary abuse of non-heroin opiates
- Be American Native or Alaska Native
- Be aged 18 to 25

Urban treatment admissions are MORE likely than rural treatment admissions to:

- Be non-Hispanic Black
- Report primary heroin abuse
- Be Hispanic
- Engage in daily use of their primary substance of abuse
- Not be in the labor force
- Be self- or individually referred to treatment
- Report not having a primary source of income
- Be aged 18 or older at first use
- Report primary cocaine abuse

Source: SAMHSA Treatment Episode Data Set (TEDS), 2009.

End Notes

[1] Agency for Healthcare Research and Quality. (2011). *2010 national healthcare disparities report* (AHRQ Publication No. 11-0005). Rockville, MD: U.S. Department Health and Human Services. Retrieved from http://www.ahrq.gov/qual/nhdr10/nhdr10.pdf

[2] Lenardson, J., & Gale, J. A. (February, 2008). *Distribution of substance abuse treatment facilities across the rural-urban continuum*. Muskie School of Public Service, Maine Rural Health Research Center, University of Southern Maine. Retrieved from http://muskie.usm.maine.edu/Publications/rural/pb35bSubstAbuseTreatmentFacilities.pdf

[3] Gfroerer, J. C., Larson, S. L., & Colliver, J. D. (2007). Drug use patterns and trends in rural communities. *The Journal of Rural Health, 23*(Suppl.), 10-15.

[4] Eberhardt, M. S., Ingram, D. D., Makuc, D. M., et al. (2001). *Urban and rural health chartbook. Health, United States, 2001*. Hyattsville, MD: National Center for Health Statistics.

[5] The classification system used for these reports does not designate any of the five levels as “rural” or “urban.” For the purposes of this report, when the terms “rural” or “most rural” are used, they refer to those counties classified as non-metropolitan without a city of 10,000 or more population, and when the term “urban” or “most urban” is used in this report, it refers to metropolitan counties classified as “large central.”

[6] Substance Abuse and Mental Health Services Administration. (2011). *Treatment Episode Data Set (TEDS): 1999-2009. National admissions to substance abuse treatment services* (DASIS Series S-56, HHS Publication No. SMA 11-4646). Rockville, MD: Author. Retrieved from http://www.samhsa.gov/data/DASIS/teds09/teds2k9nweb.pdf

[7] *Psychiatric problem in addition to alcohol or drug problem* is a TEDS Supplemental Data Set item.

[8] Schmidt, L. A., & Mulia, N. (2009, February). *Racial/ethnic disparities in AOD treatment knowledge asset*. Robert Wood Johnson Foundation's Substance Abuse Policy Research Program. Retrieved from http://saprp.org/knowledgeassets/knowledge_detail.cfm?KAID=11

[9] Marsh, J. C., Cao, D., Guerrero, E., & Shin, H. (2009). Need-service matching in substance abuse treatment: Racial/ethnic differences. *Evaluation and Program Planning, 32*(1), 43-51.

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Findings from SAMHSA's Treatment Episode Data Set (TEDS) for 2009

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The Treatment Episode Data Set (TEDS) is an administrative data system providing descriptive information about the national flow of admissions aged 12 or older to providers of substance abuse treatment. TEDS intends to collect data on all treatment admissions to substance abuse treatment programs in the United States receiving public funds. Treatment programs receiving any public funds are requested to provide TEDS data on publicly- and privately-funded clients.

TEDS is one component of the Behavioral Health Services Information System (BHSIS), maintained by the Center for Behavioral Health Statistics and Quality (CBHSQ), Substance Abuse and Mental Health Services Administration (SAMHSA). TEDS records represent admissions rather than individuals, as a person may be admitted to treatment more than once. Information on treatment admissions is routinely collected by State administrative systems and then submitted to SAMHSA in a standard format.

There are significant differences among State data collection systems. Sources of State variation include the amount of public funding available and the constraints placed on the use of funds, facilities reporting TEDS data, clients included, services offered, and completeness and timeliness of reporting. See the annual TEDS reports for details. TEDS received approximately 1.9 million treatment admission records from 49 States and Puerto Rico for 2009.

Definitions of demographic, substance use, and other measures mentioned in this report are available in Appendix B of the annual TEDS report on national admissions (see latest report at http://www.samhsa.gov/data/DASIS/teds09/TEDS2k9NAppB.htm).

The TEDS Report is prepared by the Center for Behavioral Health Statistics and Quality, SAMHSA; Synectics for Management Decisions, Inc., Arlington, VA; and RTI International, Research Triangle Park, NC. **Information and data for this issue are based on data reported to TEDS through November 3, 2010.**

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