

Executive Summary

Comparing Rural and Urban Drug Use and Violence in the Pennsylvania Youth Survey

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In 2016, Pennsylvania ranked 5th in the nation for drug overdose deaths, and the overdose death rate increased 44.1 percent from 2015 to 2016, according to the Centers for Disease Control and Prevention (CDC). CDC data also indicate that Pennsylvania has a higher-than-average death rate due to gun violence, with about 12 firearm deaths for every 100,000 residents.

Understanding youth drug use and violent behavior is an important step in reducing drug use and violence in Pennsylvania. At the same time, rural and urban areas may have different rates of drug use and violence and thus require different types of interventions.

This study examined whether there are urban and rural differences in youth substance use (alcohol, tobacco, illicit drugs) and violent behavior in Pennsylvania. Using data from the 2011, 2013, and 2015 Pennsylvania Youth Surveys (PAYS), which

are administered by the Pennsylvania Commission on Crime and Delinquency, the research analyzed substance use rates and instances of violent threats and behavior among 6th, 8th, 10th and 12th grade students over time in urban and rural areas. The research also analyzed risk and protective factors associated with rural substance use and violence and the impact of school-based intervention/prevention programs on rates of substance use and violence for rural youth.

Results

In terms of alcohol and illicit drug use, the results indicated little overall differences between urban and rural students. The only meaningful difference was among rural and urban 12th graders in rates of lifetime and past 30 day marijuana use, where urban students showed higher use rates than rural students. For example, 42.2 percent of urban 12th



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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.

Information contained in this report does not necessarily reflect the views of individual board members or the Center for Rural Pennsylvania. For more information, contact the Center for Rural Pennsylvania, 625 Forster St., Room 902, Harrisburg, PA 17120, (717) 787-9555, info@rural.palegislature.us, www.rural.palegislature.us.

grade students reported lifetime marijuana use, compared to 34.7 percent of rural students. In addition, 24.0 percent of urban students in the 12th grade reported using marijuana in the past 30 days compared to 16.3 percent of rural students in the 12th grade.

It was in the use of tobacco products where the most significant difference between rural and urban students became apparent.

Rural students showed higher lifetime use of cigarettes and smokeless tobacco products than their urban counterparts. However, both groups used electronic vapor products at a similar rate. Urban students report higher disapproval of smoking among their peers, indicating that rural youth view using tobacco products as more acceptable than urban youth.

Since a large proportion of rural students are using tobacco products, the research indicates the need for programming at early grades to discourage smoking and the use of other tobacco products.

The substantial use of electronic vapor products should also be of major concern.

It appears that this new method of tobacco use is popular among both urban and rural students, as 14.9 percent of urban students and 17.0 percent of rural students reported using electronic vapor products in the 30 days prior to the survey.

One possibility is that these products are viewed as safer than cigarettes so more students are willing to try them.

Table 1. Lifetime Alcohol and Drug Use by Urban/Rural School, All Grades (number of students in parentheses)

		Urban	Rural
Alcohol***	0 occasions	58.0% (85,709)	55.0% (36,782)
	1-2 occasions	15.8% (23,414)	16.4% (10,964)
	3 or more occasions	26.2% (38,609)	28.6% (19,112)
Marijuana***	0 occasions	82.7% (121,342)	84.5% (56,172)
	1-2 occasions	4.4% (6,464)	4.6% (3,055)
	3 or more occasions	12.9% (18,858)	10.9% (7,279)
Glue/Aerosol***	0 occasions	95.7% (140,955)	94.9% (63,419)
	1-2 occasions	2.6% (3,838)	2.9% (1,950)
	3 or more occasions	1.7% (2,496)	2.2% (1,460)
Cocaine**	0 occasions	98.8% (145,801)	98.6% (66,001)
	1 or more occasions	1.2% (1,785)	1.4% (909)
Crack**	0 occasions	99.6% (146,624)	99.5% (66,455)
	1 or more occasions	0.4% (661)	0.5% (359)
Heroin*	0 occasions	99.6% (146,523)	99.5% (66,425)
	1 or more occasions	0.4% (630)	0.5% (335)
Hallucinogens**	0 occasions	97.4% (142,770)	97.2% (64,688)
	1 or more occasions	2.6% (3,808)	2.8% (1,885)
Methamphetamine**	0 occasions	99.5% (145,842)	99.4% (66,226)
	1 or more occasions	0.5% (683)	0.6% (368)
Ecstasy*	0 occasions	98.1% (142,908)	98.0% (64,786)
	1 or more occasions	1.9% (2,714)	2.0% (1,332)
Performance Enhancing Drugs***	0 occasions	99.1% (146,044)	98.8% (66,039)
	1 or more occasions	0.9% (1,306)	1.2% (787)
Prescription Pain***	0 occasions	94.2% (138,255)	93.4% (62,221)
	1-2 occasions	2.8% (4,103)	3.4% (2,254)
	3 or more occasions	3.0% (4,373)	3.2% (2,151)
Prescription Tranquilizers	0 occasions	97.8% (143,255)	97.9% (65,136)
	1 or more occasions	2.2% (3,238)	2.1% (1,397)
Prescription Stimulants	0 occasions	96.5% (140,828)	96.5% (64,007)
	1 or more occasions	3.5% (5,177)	3.5% (2,306)
Synthetic Drugs***	0 occasions	97.6% (142,266)	97.2% (64,404)
	1 or more occasions	2.4% (3,536)	2.8% (1,856)
Over the Counter Medicine	0 occasions	96.3% (140,778)	96.3% (64,001)
	1 or more occasions	3.7% (5,430)	3.7% (2,472)

Variables are flagged as significant at the .05 level (), the .01 level (**), and the .001 level (***); however, it should not be concluded that a statistically significant difference is a meaningful difference between groups. It just means that a difference would be expected in the population, however small. Source: 2015 Pennsylvania Youth Survey (PAYS).*

However, these products are still addictive substances and there is a need for anti-vaping programming to occur in early grade levels.

On the measures of violent behavior, victimization, and being threatened with violence, the analysis found no overall differences between urban and rural students.

Rural and urban students also did not demonstrate meaningful differences on risk scores for various family, school, and peer-related characteristics.

Analysis of how these characteristics impacted rural student substance use and violence revealed that established risk factors related to family life, school performance, and peer relations that have been associated with drug use and delinquency also have a negative impact on rural youth. Students who were found to be at risk in these areas showed higher levels of substance use and violent behavior/victimization at school.

Peer-related factors were the strongest predictors of substance use and violent behavior.

Finally, prevention services in rural schools did not appear to be related to changes in substance use and violence rates in schools.

Between 2013 and 2015, there were small reductions in overall substance use and violence in rural schools, on average. These reductions were not attributable to prevention programs that occurred in the school district in the 2014/15 school year.

However, this analysis only examined the number of prevention programs in a school district and the data did not include details about individual programs operat-

Table 2. Alcohol and Drug Use in the Past 30 Days by Urban/Rural School, All Grades (number of students in parentheses)

		Urban	Rural
Alcohol***	None	82.4% (120,883)	81.5% (54,315)
	1 or 2 times	10.6% (155,588)	11.2% (7,497)
	3 or more times	7.0% (10,204)	7.3% (4,835)
Marijuana***	None	90.3% (131,154)	92.3% (61,059)
	1 or 2 times	3.8% (5,552)	3.1% (2,062)
	3 or more times	5.9% (8,526)	4.6% (3,032)
Glue/Aerosol***	None	98.8% (143,878)	98.6% (65,429)
	1 or more times	1.2% (1,730)	1.4% (950)
Cocaine	None	99.7% (145,027)	99.6% (66,093)
	1 or more times	0.3% (453)	0.4% (235)
Crack	None	99.9% (145,047)	99.9% (66,185)
	1 or more times	0.1% (205)	0.1% (95)
Heroin	None	99.9% (144,918)	99.9% (66,122)
	1 or more times	0.1% (185)	0.1% (97)
Hallucinogens	None	99.4% (143,792)	99.3% (65,571)
	1 or more times	0.6% (890)	0.7% (440)
Methamphetamine**	None	99.9% (144,369)	99.8% (65,893)
	1 or more times	0.1% (191)	0.2% (119)
Ecstasy	None	99.5% (143,203)	99.5% (65,378)
	1 or more times	0.5% (674)	0.5% (340)
Performance Enhancing Drugs*	None	99.7% (144,821)	99.6% (66,033)
	1 or more times	0.3% (442)	0.4% (247)
Prescription Pain***	None	98.2% (142,332)	97.9% (64,796)
	1 or more times	1.8% (2,580)	2.1% (1,382)
Prescription Tranquilizers	None	99.3% (143,688)	99.4% (65,652)
	1 or more times	0.7% (1,006)	0.6% (416)
Prescription Stimulants	None	98.9% (142,807)	98.8% (65,216)
	1 or more times	1.1% (1,658)	1.2% (759)
Synthetic Drugs*	None	99.4% (143,571)	99.3% (65,526)
	1 or more times	0.6% (849)	0.7% (437)
Over the Counter Medicine	None	98.7% (142,908)	98.6% (65,239)
	1 or more times	1.3% (1,904)	1.4% (926)

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Table 3. Tobacco Use by Urban/Rural School, All Grades
(number of students in parentheses)

		Urban	Rural
Cigarettes	Past 30 days (any use) ^{***}	5.1% (139,441)	8.5% (61,026)
	Lifetime use ^{***}	13.7% (127,061)	20.1% (53,443)
Smokeless tobacco	Past 30 days (any use) ^{***}	2.5% (143,019)	6.6% (62,217)
	Lifetime use ^{***}	5.7% (138,572)	13.5% (57,728)
Electronic vapor product	Past 30 days (any use) ^{***}	14.9% (124,665)	17.0% (55,287)
	Lifetime use	--	--

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ing in schools. Further research could examine the rural schools that had the biggest reductions in substance use between 2013 and 2015 and attempt to get more school-specific details about the programs that operated in those schools.

For a copy of the research report, *Comparing Rural and Urban Drug Use and Violence in the Pennsylvania Youth Survey*, visit the Center’s website at www.rural.palegislature.us.

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