PURDUE EXTENSION

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Methamphetamine Use in Rural Indiana

Introduction

In 2013, Indiana had 1,797 meth lab seizures—the highest number of any state in the nation. The implications behind this number are twofold both positive and negative. On one hand, it suggests that law enforcement officials are successfully finding and shutting down meth labs. On the other, it represents an increasing number of labs in the state.

While nationwide methamphetamine (meth) use has followed a decreasing trend in recent years (National Institute on Drug Abuse, 2014), meth use in Indiana has shown an increasing pattern. The increase of meth use is a serious problem and one that poses unique challenges for several reasons. First and foremost, it is an extremely addictive drug. Second, it is relatively inexpensive and easily accessible. Meth users can easily manufacture the drug themselves, using common household ingredients and recipes found on the Internet. Finally, meth is a drug that is associated primarily with rural areas.

In this publication, we first discuss the effects of meth use and why meth use is such a problem. We then describe trends in meth use in rural Indiana. Finally, we provide some suggestions on possible ways to begin to combat the problem.

What Is Methamphetamine?

According to the National Institute on Drug Abuse (2014), meth is an extremely addictive stimulant drug that can be taken orally, smoked, snorted, or injected. It increases the levels of dopamine in the brain, a chemical involved in the experience of reward or pleasure and motor function. Short-term effects of meth include euphoria or rush, increased wakefulness, rapid or irregular heart rate, decreased appetite, and increased body temperature. Long-run effects of meth use include anxiety, depression, violent behavior, insomnia, extreme weight loss, "meth mouth" (severe dental decay), hallucinations or delusions, and sores from scratching at imagined bugs crawling underneath the skin.

As horrific as some of these effects are, the consequences of meth use go far beyond the direct effects to the user mentioned above. It is estimated that for every one pound of meth, approximately six pounds of toxic waste is also produced (Holton, 2001). Because the chemicals used to produce meth are so toxic (and highly explosive), they pose a threat not only to the individual "cooking" meth, but to anyone in close vicinity to the area. Often times it is children who suffer this exposure. Danielle Carriere and Janet Ayres Department of Agricultural Economics Purdue University

The Rural Indiana Issues Series

Audience: Local and state leaders who work with rural communities.

Purpose: To find data about issues of concern in rural communities and to interpret that data in meaningful ways to aid in decision-making.

Method: U.S. Census and Indiana Methamphetamine Investigation System data analyzed across the county groupings rural, rural/mixed, urban.

Potential Topics: Demographic changes, business development, health, health care, local government, taxes, education, agriculture, natural resources, leadership development, etc.

Outcome: Better, more informed decisions by rural decision-makers.



Most of the meth used in urban areas comes from large-scale production in Mexico and California. Because meth is relatively easy to make, however, many small-scale meth labs have developed. These small-scale labs serve to produce meth primarily to fuel the individual's addiction, rather than for distribution. Many times these labs are located in rural areas, which decreases the likelihood that chemical smells (ammonia, ether, or acetone) from the lab will be noticed. In addition, anhydrous ammonia—a key ingredient in meth—is readily available in many rural areas, because it is a commonly used fertilizer.

If an area has been contaminated from meth production, it must be cleaned, or decontaminated, before it is considered safe to occupy. This is often an expensive process, with property owners typically responsible for cleanup costs (Indiana Methamphetamine Suppression System, 2014). In some cases, it is more cost effective to demolish the building than to clean it.

Indiana's Response to Meth

In 2005, Indiana adopted the first controls for pseudoephedrine and ephedrine (chemicals used in making meth), prohibiting cold and allergy medicine containing these ingredients from being sold over the counter. This law has since been updated in 2010, 2011, and again in 2013. Current law prohibits pharmacies or NPLEx retailers from selling drugs containing more than 3.6 grams of ephedrine or pseudoephedrine (or both) to an individual within a 24-hour period, or more than 7.2 grams of ephedrine or pseudoephedrine (or both) to an individual within a 30-day period.

To put this into context, consider that there are 120 milligrams of pseudoephedrine in a single tablet of Sudafed 12 Hour tablets. A 30-day supply of Sudafed 12 Hour (at 120 milligrams every 12 hours for 30 days) is equal to 7,200 milligrams of pseudoephedrine, or 7.2 grams—the legal amount for an individual to purchase over a 30-day period.

Despite these restrictions, from 2003 to 2013, admissions to substance abuse treatment facilities for meth addictions increased from 4.2 percent to 6.6 percent in Indiana (Figure 1). Females consistently made up a higher percentage of treatment admissions for meth abuse than males. One explanation for this is that women tend to be drawn towards the drug as a weight-loss tool.

Meth Use Trends in Rural Indiana

Additional evidence of an increasing meth problem can be seen in the average rates of county meth lab seizures in Indiana, which have followed an increasing trend in the last decade (Figure 2). The numbers of rural (classifications of Indian's 92 counties into rural, urban, and mixed categories can be found in Ayres, Waldorf, and McKendree, 2012) meth lab seizures increased sharply after 2000, peaked in 2004, and seemed to be dropping until 2007, when they began to

Figure 1. Percent Patients with Methamphetamines as the Primary Substance of Abuse Admitted to Substance Abuse Treatment Facilities, Indiana, 2003-2012



Source: Treatment Episode Data Set -- Admissions



Figure 2. Methamphetamine Lab Seizures in Indiana, 2000-2013 (per 10,000 population)

Source: Indiana Methamphetamine Investigation System, 2014

rise again. Since then, the number of meth lab seizures in rural, urban, and mixed counties alike has surpassed their previous highest level from 2004.

There are two ways to examine county level meth lab seizures. The first is by using each county's absolute (or total) number of meth labs seizures. The second is through meth lab seizure rates.

In 2013, Harrison County had the highest absolute number of meth lab seizures of Indiana's rural counties at 35, while Benton, Carroll, and Ohio had the least with one lab seizure each. Because these counties have varying populations, however, absolute numbers of meth lab seizures are not necessarily accurate portrayals of the severity of the meth problem in a county. For example, Harrison County has a much higher absolute number of seizures than Benton County, but Harrison's population is also four times that of Benton County. Therefore, the numbers of lab seizures in the counties are not directly comparable.

In order to better compare counties, we adjust the absolute numbers of meth lab seizures to meth lab seizure rates per 10,000 population. While some counties may not have a population of 10,000 or more, multiplying the rate by 10,000 makes the result more easily understood.

For example, in 2013, a total of 21 meth labs were seized in Starke County. The population of Starke County in that same year was estimated at 23,197. The meth lab seizure rate is calculated by dividing the total number of meth lab seizures by the population of the county. This results in a meth lab seizure rate of about 0.00091 meth labs per person, or approximately 9.1 per 10,000.

Rates obtained from counties with less than 20 meth lab seizures are not considered stable. This is because small changes in the absolute number of meth lab seizures can cause large changes in the meth lab seizure rate. To help address this problem, the most recent three years of data were combined to obtain county average seizure rates for 2011-2013. After using rates to adjust for differences in population between counties, Starke County had the highest rate of average meth lab seizures at 11.6 meth lab seizures per 10,000 population. Ohio County had the lowest rate of lab seizures at 0.55 per 10,000. All rural county rankings, both in absolute numbers of meth lab seizures and meth lab seizure rates are shown in Table 1.

Steps Rural Communities Can Take

Two of the most vital steps rural communities can take are, first, to become aware of the serious nature and widespread use of methamphetamine and, second, to become informed. Local law enforcement officials work in collaboration with the Indiana State Police and can provide more information about what citizens can do to address this important issue. One of the greatest priorities of the Indiana State Police Methamphetamine Suppression Section is to provide education on "meth, meth labs, and the dangers associated with these environments" (Indiana Methamphetamine Investigation System, 2014). Community leaders may want to contact the Meth Suppression Section to request a program on these topics. Additional information on these topics can also be found on their website (Indiana Methamphetamine Investigation System, 2014).

County	Total Meth Lab Seizures	Average Seizure Rate	County	Total Meth Lab Seizures	Averag Seizuro Rate
Starke	81	11.60	Spencer	28	4.46
Jennings	87	10.28	Ripley	38	4.43
Fulton	61	9.84	Jay	27	4.22
Martin	30	9.76	Perry	23	3.93
Harrison	92	8.55	Pike	15	3.93
Posey	64	8.33	Warren	9	3.57
Washington	68	8.11	Rush	16	3.11
Vermillion	32	6.66	Owen	19	2.96
Greene	65	6.58	Clay	22	2.73
Blackford	24	6.38	White	20	2.72
Tipton	28	5.94	Franklin	17	2.47
Parke	30	5.84	Whitley	24	2.40
Brown	26	5.75	Jasper	24	2.39
Orange	33	5.56	Switzerland	7	2.22
Union	12	5.43	Benton	5	1.89
Sullivan	34	5.34	Wells	14	1.68
Pulaski	21	5.32	Randolph	13	1.68
Crawford	17	5.32	Newton	6	1.42
Fountain	27	5.28	Putnam	16	1.41
Gibson	52	5.17	Carroll	7	1.16
LaGrange	55	4.87	Ohio	1	0.55

Table 1. Total Rural Meth Lab Seizures and Average Seizure Rates(per 10,000 population), 2011-2013

Source: Indiana Methamphetamine Investigation System, 2014

In addition, communities may want to consider implementing programs such as The Meth Project. The Meth Project, which piloted in Montana in 2005, has been credited with Montana's drop from 5th to 39th in the nation for meth abuse. Since 2005, the program has been implemented in eight additional states: Arizona, Colorado, Georgia, Hawaii, Idaho, Illinois, and Wyoming.

The Meth Project uses several methods to educate teens and adults on the risks of methamphetamine. One example is Paint the State, a public art contest that encouraged teens in Idaho and Montana to create anti-meth art in highly visible places across the state. A second method is through aggressive ad campaigns. The advertisements, which somewhat graphically depict the risks of methamphetamine use, can be viewed at http://MethProject.org.

Conclusion

Meth is an extremely addictive drug with impacts that reach far beyond those to the individual using meth. This is true for rural and urban counties, alike.

Data suggest meth use is increasing in both rural and urban communities. Because rural meth users nearly always manufacture the drug themselves, however, rural communities face unique challenges with respect to meth use and production. Two of these challenges are increased property damage and increased exposure to the toxic chemicals used in manufacturing meth. Among those affected in rural communities, children often suffer most, due to exposure to chemicals used to make meth, or a parent or guardian's inability to provide care while on meth.

Rural communities should be aware of the problem and take steps like those mentioned above to address the problem.

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