

METHAMPHETAMINE PRODUCTION IN TENNESSEE



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EXECUTIVE SUMMARY

The illicit production of methamphetamine is a serious public health, safety, and fiscal issue in Tennessee. Methamphetamine is a highly addictive drug that can be easily produced by individuals with certain over-the-counter cold and allergy medications (pharmacy precursors) and everyday household products and chemicals. The dangers and associated costs of methamphetamine go beyond the effects on the health and productivity of the drug abuser. The explosiveness and toxicity of the labs and dumpsites of waste materials pose significant dangers and costs to families of those making methamphetamine, the community, law enforcement personnel, and workers who clean up the contaminated properties.

The number, and inherent danger, of methamphetamine labs has increased in Tennessee in the last few years, due in part to the development of “one-pot” labs. This methamphetamine production method requires only a plastic bottle and a few other items, along with a small amount of the pharmacy precursors.

State and federal policymakers have sought to balance cold and allergy sufferers’ access to a safe and effective nasal decongestant with the need to curtail the diversion of these medications to the production of methamphetamine. Federal and Tennessee laws passed in 2005 to limit access to the pharmacy precursors include purchase limits for individuals of 3.6 grams per 24 hours and nine grams per 30 days. Pharmacy precursors in Tennessee are sold from behind the pharmacy counter. Individuals must present government-issued identification to purchase and pharmacies must keep a log of all purchases. In 2011, Tennessee passed Public Chapter 292 (PC 292) to implement a real-time, electronic tracking system – the National Precursor Log Exchange (NPLEx) – to further limit access to the pharmacy precursors used to

produce methamphetamine. After much debate, NPLEx was chosen over a more restrictive requirement that an individual obtain a doctor’s prescription for the pharmacy precursors.

As directed by PC 292, this report presents information on the effectiveness of public policies in Tennessee and other states intended to control access to the key pharmacy precursors. The relatively short history of precursor control policies, as well as limitations of available crime and drug use data, limits the strength of conclusions that can be drawn about the impact of particular precursor control laws on the production of methamphetamine in small labs. The National Clandestine Laboratory Seizure System (NCLSS), maintained by the Drug Enforcement Administration’s El Paso Intelligence Center (EPIC), is the only national database of methamphetamine lab incidents; the system has not been considered a complete record of all incidents because of incomplete reporting or processing differences by EPIC.

The information included in this report is for policymakers’ consideration in addressing the problems associated with methamphetamine production.

Impact of Precursor Sales Limitations

Methamphetamine production, as measured by the number of methamphetamine lab incidents, decreased following federal and state methamphetamine pharmacy precursor sales limitation policies between 2004 and 2006; in 2007 the number of incidents began to increase in several states, including Tennessee. In 2010, Tennessee reported one of the highest number of methamphetamine lab incidents nationally. Law enforcement, both in Tennessee and nationally, attribute the increase and high numbers

of methamphetamine labs from 2008 through 2010 to methamphetamine producers' ability to work around pharmacy precursor sales limitation policies, especially for the nasal decongestant pseudoephedrine. To exceed individual pseudoephedrine purchase limitations, methamphetamine producers pay others – commonly referred to as “smurfs” – to purchase pseudoephedrine. To address the problem of “smurfing,” some states, including Tennessee, implemented electronic tracking systems to better track purchases and to enforce the precursor limitations.

Impact of Electronic Tracking of Pharmacy Precursor Sales

Methamphetamine lab incident trends in the four states operating statewide electronic tracking for pharmacy precursors for multiple years – Arkansas, Kentucky, Oklahoma, and Tennessee – do not differ from other high methamphetamine production states. In addition, a small percentage of over-the-limit sales were blocked in the four states that used NPLeX in 2010 (Kentucky, Illinois, Louisiana, and Iowa); methamphetamine lab incidents in 2010 did not decrease in those states. Possible reasons for the increase in the number of methamphetamine labs in states with electronic tracking systems include:

- Electronic tracking can limit the amount of precursors individuals can purchase, but may be ineffective if offenders use false identification and/or recruit larger groups of individuals to purchase smaller amounts of the precursors.
- Tracking systems may be more effective at assisting law enforcement in the discovery of methamphetamine labs, thus increasing the number of labs discovered, than at preventing methamphetamine labs.

- The increase in the number of methamphetamine lab incidents may be related to a shift to low-yield production methods, often referred to as the “one-pot” or “shake-and-bake” method. Using this simplified method, methamphetamine producers can quickly produce small batches of methamphetamine more frequently and in multiple locations. This method requires a smaller amount of the pharmacy precursors, thus increasing the number of potential producers. This change in production method may affect the comparability of methamphetamine lab incidents statistics over time.

A preliminary assessment by OREA of NPLeX in its first six to eight months of statewide, mandatory operation in Tennessee during 2012 found:

- Methamphetamine lab incidents since the implementation of NPLeX in January 2012 have not decreased substantially and remain at high levels.
- About three percent of pharmacy precursor sales were blocked by NPLeX as over-the-limit from January through October 2012.
- Same store precursor sales declined an estimated two percent in the first six months of 2012 compared to the same period in 2011. The decline is approximately equivalent to the sales reported blocked by NPLeX.
- The Tennessee Methamphetamine Intelligence System (TMIS) has flagged as “suspicious” about 33 percent of total grams of pharmacy precursors purchased and 12 percent of driver licenses used for purchases from January through September 2012. This is a decrease from 47 percent of grams purchased and 18 percent of driver licenses used in that period in 2011. Tennessee’s monthly pharmacy precursor

sales based on NPLeX data and flagged by TMIS as suspicious have been fairly constant since January 2012. Other sales that are not suspicious have fluctuated with the seasonality of cold and allergy symptoms.

- From January through June 2012, 481,023 individuals purchased pharmacy precursors to methamphetamine; 80 percent bought less than five grams during that period. Purchase limits allow purchases up to nine grams per 30 days. Individuals using driver licenses flagged by TMIS as suspicious purchased an average of 9.5 grams from January through June 2012, compared to three grams for those using non-suspicious licenses.

OREA surveyed Tennessee law enforcement officials and pharmacists to determine their perception of the use and impact of NPLeX on precursor diversion to methamphetamine. Low response rates by law enforcement (33 percent), independent and small chain pharmacists (36 percent), and, especially, large chain pharmacists (0 percent) limit the ability to generalize these results. See *Surveys of Tennessee Law Enforcement and Pharmacists* (pp. 23-28) and Appendices F and G.

Impact of Precursor Prescription-only Laws

Three areas that have implemented prescription-only policies – Oregon, Mississippi, and some Missouri local areas – have seen a decrease in methamphetamine lab incidents; some studies question the extent to which other factors may have affected the decline.

The recent experience in Mississippi and local areas of Missouri, both high methamphetamine production states in 2009 like Tennessee, have seen a marked reduction in methamphetamine lab

incidents, which law enforcement attributes to the change to a prescription-only policy. Other states neighboring Mississippi, including Tennessee, Louisiana, Arkansas, and Alabama, as well as four nearby states (Missouri, Kentucky, Illinois, and Florida) without prescription-only policies, did not see a decline in 2010. Oregon had a significant decrease and has maintained a low level of methamphetamine lab incidents since the change to a prescription-only policy in 2006. Other Western states had similar declines. Two studies have concluded that other factors such as the use, source, and method of production of methamphetamine may also have influenced the decline in Oregon.

Impact of Lower Precursor Sales Limitations and Other Precursor Control Policies

Sufficient experience and information are not available to evaluate the impact of other precursor control policies such as lower precursor purchase limits, methamphetamine offender registries, and residency restrictions.

Impact of Federal Funding on Methamphetamine Production Enforcement and Cleanup Costs in Tennessee

Tennessee has relied primarily on federal funding to support state and local law enforcement in efforts to eliminate methamphetamine production. Since FFY 2002, Tennessee has received \$37.2 million for both enforcement initiatives and lab cleanups. Federal funding is ending for the enforcement initiatives, which include statewide enforcement activities coordinated by the Tennessee Methamphetamine and Pharmaceutical Task Force and its staff. Federal lab cleanup funding has fluctuated in recent years

and was not available from late February through June 2011. To preserve the limited available cleanup funds, on February 22, 2011, the DEA discontinued funding for individual lab cleanups, as used in Tennessee and most other states, in favor of more cost-effective use of Authorized Central Storage Container Programs (ACS). The ACS program uses trained state and local law enforcement officers to remove the chemicals from smaller (one-pot) labs and temporarily store them in regional safe and secure locations for later pickup by DEA hazardous waste vendors. With these revised lower-cost waste processing procedures, federal appropriations are expected to cover cleanup and some of the training and equipment costs through September 2013. Without federal or other sources of funds, local law enforcement becomes responsible for the costs of methamphetamine enforcement and lab cleanup.

Policy Considerations

Methamphetamine production in small labs is prevalent in Tennessee despite the implementation of pharmacy precursor sales limitations and an enhanced electronic tracking system. Data limitations and other factors make it difficult to gauge the effectiveness of various precursor control policies. Estimates of the extent of the problem and the potential effects of the different options, if adopted, vary significantly between the pharmaceutical industry, as presented primarily by the Consumer Healthcare Products Association (CHPA), and law enforcement, as presented primarily by the Tennessee Methamphetamine and Pharmaceutical Task Force (TMPTF).

Issues for policymakers to consider in evaluating whether to make a precursor control policy change include:

- the extent to which pharmacy precursors are diverted to methamphetamine production

Estimates range from three percent to five percent by CHPA, roughly equal to sales blocked by NPLeX as over the limits, to at least 30 percent and up to 70 percent by the TMPTF based on (1) precursor sales to “suspicious” individuals flagged in TMIS by law enforcement officers for prior methamphetamine-related behavior and (2) Tennessee law enforcement officers’ experience in the field. Other areas’ law enforcement estimates suggest that as much as 90 percent of sales are diverted.

Two studies have found a positive relationship between precursor sales per person and methamphetamine labs discovered in areas within Tennessee and Kentucky. CHPA asserts that pseudoephedrine sales in states correlate more with population than with methamphetamine production.

- the number of legitimate users of pharmacy precursors

Approximately 10 percent of adult Tennesseans purchased pharmacy precursors to methamphetamine from January through June 2012.

- the potential cost and access concerns to consumers of a prescription requirement

Potential costs outlined by CHPA include the cost and time required to get a prescription for pharmacy precursors, the increased workload for doctors, higher costs of prescription drugs, and loss of sales tax revenue because prescription drugs are not taxed in Tennessee. Officials in Oregon and Mississippi indicate that legitimate consumer access to and

increased costs for pseudoephedrine have not been significant concerns since their change to a prescription-only policy.

Approximately 71 percent of allergy, asthma, and cold sufferers surveyed in 2010 who bought non-prescription drugs indicated they were opposed to prescription requirements for pseudoephedrine. Other survey responses indicate that a prescription-only policy may not have a significant cost or negative impact on the majority of allergy, asthma, and cold sufferers. Thirty-six percent surveyed indicated that they buy pseudoephedrine from behind the counter; 52 percent surveyed buy an alternative over-the-counter medication. Approximately 75 percent of those sampled either fill a prescription frequently or occasionally, indicating they are under a doctor's care and could get a prescription for pseudoephedrine if needed, especially for chronic use, without an additional doctor visit. Approximately 39 percent of those buying the alternatives indicated that they thought the alternatives appear to work as well as pseudoephedrine; 43 percent were not sure; and 18 percent indicated that the alternatives did not work as well as available over-the-counter decongestants.

The federal Food and Drug Administration (FDA) does not support the long-term use of pseudoephedrine without doctor approval. The FDA Drug Facts label for pseudoephedrine products warns individuals to discontinue use and seek a doctor's advice if symptoms persist longer than seven days. FDA warnings also direct individuals with heart disease, high blood pressure, diabetes, and some other conditions to get a doctor's advice before using. In Tennessee, approximately 34

percent of adults were diagnosed with high blood pressure in 2007, 11.3 percent with diabetes (2010), and 5.8 percent with heart disease (2008).

- the adequacy of Tennessee's Controlled Substance Monitoring Database (CSMD) to track and control methamphetamine precursor sales if prescription only

If the pharmacy precursors to methamphetamine are made a Schedule II to IV controlled substance, individuals would need a prescription from a licensed health care practitioner to purchase the drugs and pharmacists would enter the sales in Tennessee's Controlled Substance Monitoring Database (CSMD). The CSMD provides prescribers and law enforcement, in certain circumstances, a history of an individual's controlled substance purchases. The CSMD, in part because it monitors all prescription drug sales, would not provide readily accessible histories to prescribers, pharmacists, and law enforcement, or the most current pseudoephedrine sales as is provided by NPLeX.

Another concern with the change from electronic tracking of precursor sales to the CSMD is its ineffectiveness in recent years in preventing individuals from obtaining and filling multiple prescriptions for controlled substances, primarily pain medications, from different prescribers, commonly referred to as "doctor shopping." Oregon and Mississippi officials indicate that "doctor shopping" has not occurred in their states since requiring a prescription for the precursors. Tennessee Public Chapter 880 of 2012, effective in 2013, strengthens reporting and timeliness requirements for the CSMD.

Policy Options

The report summarizes the advantages and disadvantages of the two primary precursor control policy options:

- Option 1: Maintain enhanced electronic tracking of precursor sales.
- Option 2: Require a prescription for precursors.

It is important to note that these options focus on preventing or reducing local methamphetamine production, not methamphetamine use. A decrease in the supply of locally-produced methamphetamine may not result in a reduction in methamphetamine use. Most of the methamphetamine available in many parts of the United States, though not presently in Tennessee, is supplied by Mexican transnational criminal organizations (TCOs) and is produced in foreign and domestic super labs.

Information is also included concerning supplemental options that could be undertaken in conjunction with one of the primary options:

- Option 3: Lower purchase limits for pseudoephedrine.
- Option 4: Local prescription-only ordinances.
- Option 5: Residency requirements to purchase pharmacy precursors.
- Option 6: Funding for methamphetamine enforcement and cleanup.

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INTRODUCTION

The illicit production of methamphetamine is a serious public health, safety, and fiscal issue in Tennessee. Methamphetamine is a highly addictive drug that can be easily produced by individuals with certain over-the-counter cold and allergy medications (pharmacy precursors) and everyday household products and chemicals. The dangers and associated costs of methamphetamine go beyond the effects on the health and productivity of the drug abuser. The explosiveness and toxicity of the labs and dumpsites of waste materials pose significant dangers and costs to families of those making methamphetamine, the community, law enforcement personnel, and workers who clean up the contaminated properties.

The number, and inherent danger, of methamphetamine labs has increased in Tennessee in the last few years, due in part to the development of “one-pot” labs. This methamphetamine production method requires only a plastic bottle and a few other items, along with a small amount of the pharmacy precursors. Federal and Tennessee laws to limit access to the pharmacy precursors have had limited long-term effectiveness in curtailing the production of methamphetamine in Tennessee, in part because methamphetamine producers have developed means to circumvent the laws.

State and federal policymakers have sought to balance cold and allergy sufferers’ access to a safe and effective nasal decongestant with the need to curtail the diversion of these medications to the illegal and dangerous production of methamphetamine. In 2011, Tennessee passed legislation to implement a real-time, electronic tracking system – the National Precursor Log Exchange (NPLEx) – to limit access to the pharmacy precursors used to produce methamphetamine. After much debate, NPLEx was chosen over a more restrictive requirement that an

individual obtain a doctor’s prescription for the pharmacy precursors.

Directive and Scope

In May 2011, the Tennessee General Assembly passed Public Chapter 292 (PC 292)¹ to address the proliferation of small, toxic methamphetamine labs in Tennessee. PC 292 included a directive for the Comptroller’s Office to conduct a study of methamphetamine use in Tennessee:

The office of the comptroller of the treasury shall conduct a study of methamphetamine use in Tennessee. The study shall include: a review of existing literature; a review of available information on programs in other states, particularly those states that require a prescription for methamphetamine precursor purchase; and analysis of data and information from the Tennessee Methamphetamine Task Force,² the Tennessee Bureau of Investigation, and other state or local agencies.

This study by the Comptroller’s Offices of Research and Education Accountability (OREA) focuses on the problems presented by the domestic production of methamphetamine in Tennessee and the effectiveness of public policies in Tennessee and other states intended to control access to the key precursors required to produce methamphetamine.

The study includes:

- background information on methamphetamine;
- more specific information on the domestic production of methamphetamine in small labs in the U.S.;
- an analysis of federal and state pharmacy precursor control policies, with a focus on electronic tracking and prescription-only

- requirements in different states based on available data and other assessments;
- a preliminary assessment of the effectiveness of the National Precursor Log Exchange (NPLEx) electronic tracking system implemented in Tennessee in January 2012; and
 - policy options and issues for policymakers' consideration.

OREA's research methodology included:

- interviews with law enforcement officials, pharmacists, and representatives from pharmacies, pharmaceutical companies, medical professionals, and legislative, executive, and judicial branches of state government;
- an analysis of available data on methamphetamine lab seizures and sales of pharmacy precursors in Tennessee and other states;
- a survey of Tennessee pharmacists and law enforcement officials.

BACKGROUND

Overview

Methamphetamine, a central nervous system stimulant, is a legal controlled substance with limited medical uses for the treatment of narcolepsy, attention deficit disorders, and obesity; however, it is seldom prescribed by doctors. Methamphetamine is also a highly addictive recreational drug that can be illegally produced from over-the-counter cold and allergy drugs – primarily pseudoephedrine – and other readily available chemicals and household products.

Known as “meth,” “crank,” “speed,” “ice,” “crystal,” and by other names, methamphetamine appears in a variety of forms, such as powder, crystals, and tablets, that can be injected, smoked, snorted, or taken orally. When the drug is initially administered, methamphetamine users feel a short, intense “rush.”

A methamphetamine “high” can last 12 hours or more. To intensify the effects, users often take the drug more frequently or in higher doses. The drug affects the brain and heart, which can increase physical activity and wakefulness, and decrease appetite.

Glossary

ACS – Authorized Central Storage Container Programs
CHPA – Consumer Healthcare Products Association
CMEA – Combat Methamphetamine Epidemic Act of 2005 (Federal)
CSMD – Controlled Substance Monitoring Database (Tennessee)
DEA – Drug Enforcement Administration
DTO – Drug Trafficking Organizations
EPIC – El Paso Intelligence Center
FDA – Food and Drug Administration (Federal)
NADDI – National Association of Drug Diversion Investigators
NCLSS – National Clandestine Laboratory Seizure System
NDIC – National Drug Intelligence Center
NPLEx – National Precursor Log Exchange
PC 18 – Meth-Free Tennessee Act of 2005
PC 292 – I Hate Meth Act of 2011 (Tennessee)
PC 880 – Tennessee Prescription Safety Act of 2012
TCO – Transnational Criminal Organizations
TMIS – Tennessee Methamphetamine Intelligence System
TMPTF – Tennessee Methamphetamine and Pharmaceutical Task Force
TMTF – Tennessee Methamphetamine Task Force

Long-term use can result in a range of conditions such as severe dental problems, hallucinations, and anorexia. Chronic abuse can lead to psychotic behavior, brain and heart damage, violent behavior, and the inability to care for oneself and one's children. Withdrawal symptoms such as paranoia, hallucinations, and delusions can last for months or years after methamphetamine use has ceased.

Sources of Methamphetamine

Most of the illicit methamphetamine used in the United States comes from foreign or domestic "super labs" in Mexico and California; however, the drug is also easily made in small, domestic, clandestine laboratories. The 2011 National Drug Assessment indicates that

Mexican-based

Transnational Criminal Organizations (TCOs)³ and their associates dominate the supply and distribution of methamphetamine in the U.S., and that their foreign production of

methamphetamine appears to be increasing. Small-scale domestic production labs account for a small portion of the U.S. supply but are increasing. Small-scale domestic labs are prevalent in rural areas where Mexican TCOs have not established

methamphetamine distribution networks. The source of

methamphetamine has varied over time and by region. According to Tennessee law enforcement agencies interviewed by OREA, most

methamphetamine used in Tennessee in 2010 came from small-capacity local labs and was not imported from Mexico or other states. The focus of this report is on small-scale labs.

Small Lab Production of Methamphetamine

Individuals use a chemical process to extract pseudoephedrine from retail over-the-counter cold and allergy medications and synthesize it into methamphetamine. The process uses other legitimate, readily available household materials, such as camping fuel, lithium from batteries, cold packs, and drain cleaner. Traditional small labs required more equipment, a heat source, and

Report Terminology

Pharmacy Precursors refer to the over-the-counter pharmaceutical products required to produce methamphetamine and includes pseudoephedrine and ephedrine. The nasal decongestant **pseudoephedrine** is the primary precursor used in current production methods, but the more general term of "pharmacy precursor" is used to include ephedrine and other drugs that may potentially be used in production methods.

Methamphetamine Lab Incidents refers to the discovery by law enforcement of methamphetamine lab(s) or equipment, chemicals, and lab waste, regardless of volume, which requires processing and cleanup.

Methamphetamine Production is used synonymously with methamphetamine manufacturing and refers to the illicit production of methamphetamine in small, domestic labs.

Methamphetamine Use refers to illegal consumption of methamphetamine by individuals.

Tennessee Methamphetamine and Pharmaceutical Task Force (TMPTF): The Tennessee Methamphetamine Task Force merged with the Tennessee Drug Diversion Task Force in February 2012 to become the Tennessee Methamphetamine and Pharmaceutical Task Force. The current name is used throughout this report except for references to articles published under the name of the Tennessee Methamphetamine Task Force.

usually a more permanent indoor space. However, in recent years, law enforcement saw a shift to “one-pot” or “shake-and-bake” labs. This method requires a smaller amount of pseudoephedrine than earlier production methods. The pseudoephedrine is mixed with reactants in a small container, such as a one- or two-liter plastic bottle, and no heat source is required. This is a quicker, but still very dangerous, production method. These labs are portable, making them more difficult to track, and are often found in vehicles or strewn along roadways.

The TMPTF estimates that in 2011, 70 percent to 75 percent of methamphetamine lab incidents in Tennessee involved the shake-and-bake method.

Dangers and Costs of Methamphetamine Production

The dangers and associated costs of methamphetamine go beyond the effects on the health and productivity of the drug abuser. The explosiveness and toxicity of the labs and dumpsites of waste materials pose significant dangers and costs to the families of those making methamphetamine, the community, law enforcement personnel, and workers who clean up the contaminated properties.

Dealing with the public health and safety consequences of methamphetamine labs requires significant federal, state, and local funding and resources. Medical costs for burns suffered in explosions are significant and seldom covered by patients or insurance. Health consequences for persons exposed to the toxic chemicals used and emitted in the production process, especially children, are severe. Child protective and foster care costs for children found at methamphetamine lab sites are significant. Law enforcement agencies, supported with federal and state funding as available, are financially responsible for the cleanup of the toxic labs’ waste. In addition, property owners are responsible for paying to remediate property contaminated by the residual toxic waste.

A 2009 study by the RAND Drug Policy Research Center estimated a cost of \$61 million in 2005 for harms associated with methamphetamine small lab production in the United States including \$32 million from injuries and deaths from hazardous-substance events, such as fires and explosions, and \$29 million in cleanup of hazardous waste at discovered labs. The study could not estimate methamphetamine-specific costs related to the social cost of the pollution by methamphetamine lab waste or the cost of decontamination and displacement for victims of lab exposure or explosions.

Listed below are some methamphetamine-related costs in Tennessee. Sufficient information was not available to develop an overall cost estimate of the impact of methamphetamine production in Tennessee.

- Tennessee spent over \$4 million in federal funds in FFY 2010 to clean up methamphetamine lab sites, at an average cost of \$2,500 per site.⁴
- In fiscal years 2010 and 2011, 722 children were placed in Department of Children’s Services’ custody for methamphetamine-related issues at an estimated total cost of \$19.6 million.⁵
- The Tennessee Methamphetamine and Pharmaceutical Task Force identified one methamphetamine-related burn patient at Vanderbilt University Burn Unit who required four months of critical care at a cost of \$1 million in 2009–2010.⁶
- According to the Tennessee Methamphetamine and Pharmaceutical Task Force, in addition to at least \$1,000 for initial toxicity testing, remediation cost of a single home can range from \$5,000 to \$25,000.^{7, 8}

Extent of Methamphetamine Lab Problem

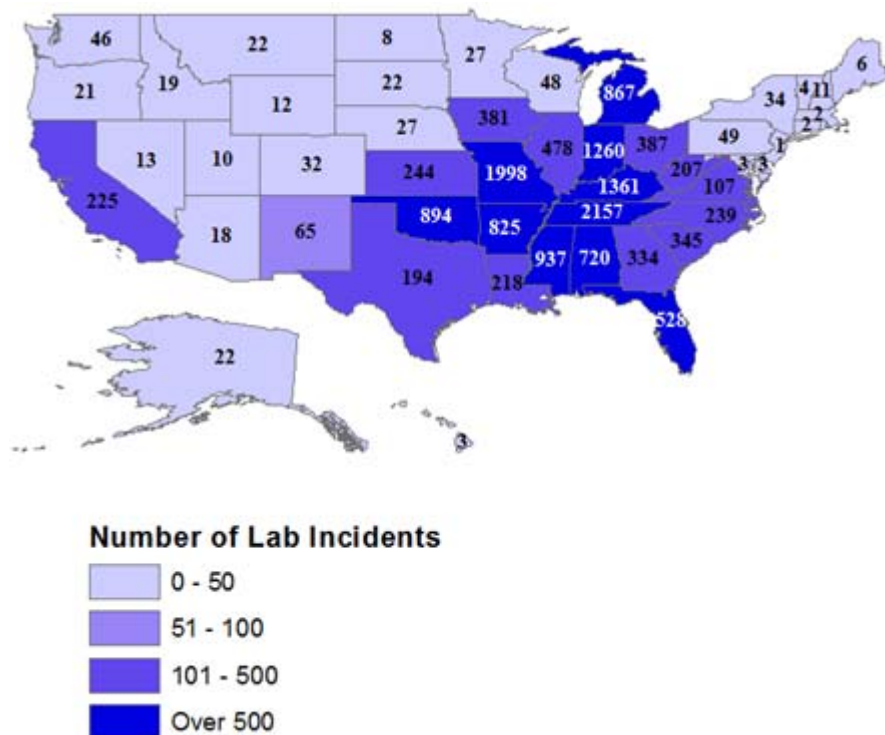
The primary measure used to describe the extent of small-lab, domestic methamphetamine production is the number of lab incidents discovered and reported by law enforcement to the Drug Enforcement Administration’s El Paso Intelligence Center (EPIC). A snapshot of methamphetamine lab incidents nationally and in Tennessee is included in Appendix A. Limitations of this data are included in the analysis section of this report. Trend analysis of lab incidents is included in the analysis section to assess the impact of public policies designed to prevent or reduce lab incidents.

Exhibit 1 shows the number of methamphetamine lab incidents by state for 2010 as reported by EPIC as of October 4, 2012. (See Appendix A for reported data.) The 15,438 reported lab incidents were primarily concentrated in Southern and Midwestern

states. The 10 states with the highest number of methamphetamine lab incidents were either Southern or Midwestern states, and accounted for 88 percent of all incidents in 2010. Tennessee had one of the highest number of incidents reported by EPIC in 2010. About 14 percent of incidents reported by EPIC were in Tennessee; an additional 42 percent were in the eight states contiguous to Tennessee.

Exhibit 2 shows the number of methamphetamine lab incidents in Tennessee by county in 2010, using lab incidents reported to the TMPTF. Sixteen of Tennessee’s 95 counties reported 30 or more incidents accounting for 60 percent of 2,082 incidents statewide. Eight of these 16 counties were in East Tennessee, five in Middle Tennessee, and three in West Tennessee. The population of these counties included two over 100,000 (Shelby and Hamilton), six between 50,000 and 100,000

Exhibit 1: Methamphetamine lab incidents by state, 2010



(Anderson, Bradley, Coffee, Madison, McMinn, and Tipton), six between 25,000 and 50,000 (Campbell, Franklin, Lawrence, Monroe, Rhea, and Warren), and two counties less than 25,000 (Grundy and Meigs).⁹

According to the Tennessee Department of Correction, as of January 2012, 1,365 convicted felony methamphetamine-related offenders were incarcerated in Tennessee prisons and local jails. As of January 2012, an additional 479 felons convicted on methamphetamine

Source: El Paso Intelligence Center (EPIC), National Seizure System, 2000 to 2010 as of October 4, 2012.

offenses were supervised on parole and 2,572 were supervised on probation.^A

Extent of Methamphetamine Use

Available national and Tennessee methamphetamine abuse measures are included below. Drug abuse statistics primarily rely on accurate responses to household surveys on whether an individual has used or is using an illegal drug. Critics indicate that many drug abusers tend to not reply honestly, if at all, about their drug abuse or may be excluded from the populations sampled, e.g., those in treatment, incarcerated, or homeless. Statistics on individuals receiving treatment services may reflect the funding available for such services, not necessarily the full need for such services.

National

The 2010 National Survey on Drug Use and Health estimated there were 353,000 (0.1 percent of the

population) methamphetamine users in the United States in 2010 in the past month. This is a decrease from the estimated 731,000 (0.3 percent of the population) users in 2006. The number of past year initiates of methamphetamine use among persons age 12 and older was 105,000 in 2010 compared to 157,000 in 2007 and 299,000 in 2002.¹⁰ This declining trend in methamphetamine use is confirmed by the 2010 University of Michigan report, *Monitoring the Future*, which indicates a decline in both lifetime and prevalence in the use of methamphetamine among 8th grade, high school, and college students, as well as young adults between 2000 and 2010.¹¹

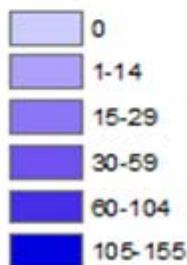
Tennessee

A recent survey found that a smaller percentage of Tennessee high school students report using methamphetamine in their lifetime. The 2011 Tennessee Youth Risk Behavior Survey found a

Exhibit 2: Tennessee methamphetamine lab incidents by county, 2010



**Number of Lab Incidents
2010 Total**



Note: Incident numbers reported here are from the Tennessee Methamphetamine Intelligence System (TMIS). EPIC numbers were not available by county for the analysis. Total incidents in TMIS for 2010 were 2,082 compared to 2,157 reported in EPIC.

Source: Tennessee Methamphetamine and Pharmaceutical Task Force.

^A Information was not available on federal or misdemeanor convictions for methamphetamine related offenses.

decrease in methamphetamine use from 9.5 percent of students in 2003 to 3.8 percent in 2007. Between 2007 and 2011, the percentage of students reporting methamphetamine use stayed at approximately the same level.¹²

Admissions to publicly-funded treatment facilities in Tennessee for amphetamines (which include methamphetamine) remain less than five percent of all admissions, but the numbers have risen since 2008. In 2010, 525 individuals were admitted to treatment facilities in Tennessee for amphetamines, four percent of the 11,751 admissions. As shown in Exhibit 3, amphetamine admissions declined from 541 in 2005 to 277 in 2008, but increased to 525 by 2010.¹³

According to the Tennessee Department of Mental Health, 1,066 individuals in Tennessee received publicly-funded treatment for methamphetamine abuse in FY 2011 at a cost of \$2.8 million in federal

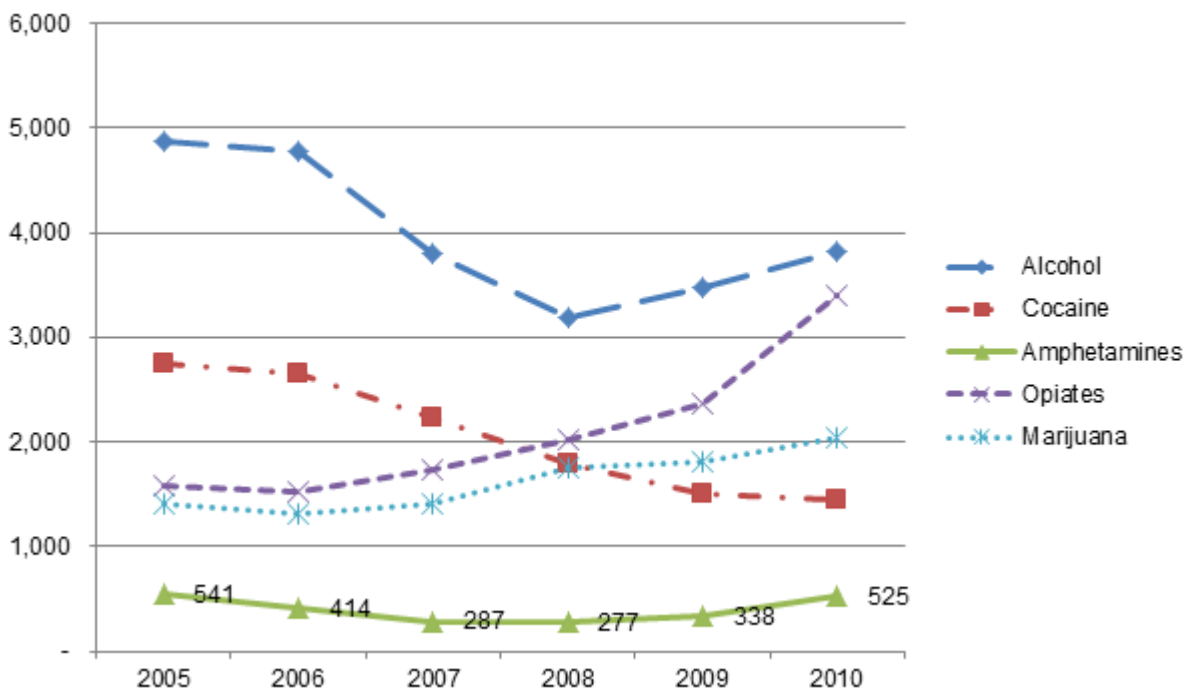
and state funds. About 52 percent of treatment program enrollment was for inpatient services and 48 percent for outpatient services.

Methamphetamine clients made up eight percent of substance abuse clients receiving services with state and federal funds in Tennessee in FY2011.

Federal and State Methamphetamine Laws

Federal and state governments have adopted multi-faceted public policies that seek to reduce both the use and production of methamphetamine. Policies that focus on reducing the use of methamphetamine include public awareness and education on the dangers of methamphetamine use, law enforcement interdiction efforts for the importation and distribution of methamphetamine, criminal penalties for the possession and sale of illicit methamphetamine, especially in the presence of children, and treatment for methamphetamine addiction. Policies seeking to primarily reduce the

Exhibit 3: Admissions to Tennessee treatment facilities by selected primary substance of abuse, 2005 through 2010



Source: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Treatment Episode Data Set (TEDS), as of January 5, 2012.

local production of methamphetamine include control and tracking of the precursors required to produce methamphetamine and criminal penalties for the purchase and possession of precursors diverted to the production of methamphetamine. Other policies relate to the environmental hazards of methamphetamine production, including the cleanup and quarantine of methamphetamine lab sites.

Overviews of federal and Tennessee laws related to methamphetamine are included in Appendices B and C. See Appendix D for a description of the Tennessee Methamphetamine and Pharmaceuticals Task Force (TMPTF), begun in 1999 and expanded statewide in 2005, which has coordinated and funded Tennessee's efforts to control methamphetamine.

This report focuses on public policies seeking to control the local production of methamphetamine. These policies, described in more detail below, have centered on the control of the pharmacy precursors – primarily pseudoephedrine and ephedrine – essential to the production of methamphetamine in small, clandestine labs.

Public Policies to Control the Availability of Methamphetamine Precursors

Federal

From 1988 through 2006, Congress implemented a series of laws to control the supply of methamphetamine pharmaceutical precursors available for purchase in the United States. Federal laws from 1988 to 1995 included reporting requirements for bulk sales of ephedrine and pseudoephedrine powder for the legitimate production of medications. In 1993, legislation was passed to require the Drug Enforcement Administration to license manufacturers and wholesale distributors of pseudoephedrine tablets.

Effective in September 2006, Congress shifted from the wholesale regulation of the pharmacy precursors of methamphetamine to a retail focus. The Combat

Methamphetamine Epidemic Act (CMEA) of 2005, based on models already developed in several states to fight a growing regional methamphetamine problem, placed national minimum requirements on the sales of products containing ephedrine and pseudoephedrine. Primary controls include:

- limiting individuals' purchases of the drugs to 3.6 grams in a 24-hour period and nine grams per 30 days;
- limiting mail order purchases of the drugs to 7.5 grams;
- requiring all products containing such ingredients to be kept behind a counter or in a locked cabinet;
- requiring a purchaser to present a government-issued photo identification and sign a log verifying their purchase with their name and address; and
- requiring retailers to maintain the purchase logs for two years and allow law enforcement access to these records

The federal law sets minimum standards for all states; however states are authorized to implement stricter limitations. Tennessee and several other states had implemented similar requirements prior to the implementation of the federal laws in 2006.

See Appendix B for an overview of federal methamphetamine precursor laws.

Tennessee

As part of a comprehensive strategy for addressing methamphetamine production and abuse as recommended by the Governor's Task Force on Methamphetamine Abuse of 2004, Tennessee implemented a methamphetamine precursor control policy in 2005.¹⁴ The Meth-Free Tennessee Act of 2005 (PC 18):

- restricted the sale of immediate methamphetamine precursors to licensed pharmacies from behind the pharmacy counter or in a locked case near the counter;¹⁵

- limited purchase amounts to three packages per day and nine grams per 30 days;
- required purchasers to present a valid government identification; and
- required the pharmacy to maintain an electronic or written register identifying the purchaser, purchaser identification type and number, dispensing pharmacy staff, and name and quantity of precursor purchased.

PC 18 created criminal offenses for a person to knowingly initiate a process intended to result in the production of any amount of methamphetamine or for persons to promote methamphetamine production through the acquisition of methamphetamine precursors knowing it is intended to produce methamphetamine.¹⁶

The federal CMEA, effective in 2006, added requirements in Tennessee for law enforcement to have access to the purchase logs. The federal law also more specifically limited daily purchases of immediate methamphetamine precursors to 3.6 grams rather than three boxes.

In 2005, the Tennessee Methamphetamine and Pharmaceutical Task Force added electronic tracking capabilities for purchases of pharmacy methamphetamine precursors to the TMIS. PC 18 did not require pharmacies to submit collected data electronically to law enforcement; however, the TMPTF worked with pharmacies to submit their sales information voluntarily, either electronically or on paper for entry into the TMIS database. In 2007, a pharmacy portal was added to allow pharmacies that used written logs to electronically enter and send their precursor sales to TMIS. According to the TMPTF, TMIS captured about 85 percent of methamphetamine pharmacy precursor sales using voluntary compliance by pharmacies. Tennessee statutes did not allow TMIS to receive information in

real time or to issue stop-sale alerts. The TMPTF used TMIS data to develop intelligence and leads for law enforcement agencies to identify and investigate potential offenders purchasing and diverting pharmacy methamphetamine precursors to the domestic production of methamphetamine.

In 2011, the Tennessee General Assembly passed the “I Hate Meth Act,” (PC 292), which requires all pharmacies to use the real-time, stop-sale National Precursor Log Exchange (NPLEx). NPLEx is administered by the National Association of Drug Diversion Investigators (NADDI) and began electronically recording all sales of pseudoephedrine or ephedrine in January 2012. PC 292 also prohibits persons on the Tennessee Methamphetamine Offender Registry from purchasing a methamphetamine pharmacy precursor. NPLEx is to send a stop-sale alert if these offenders attempt to purchase methamphetamine pharmacy precursors. Pursuant to TCA 39-17-436, the Methamphetamine Offender Registry, maintained by the Tennessee Bureau of Investigation, is to include all persons convicted of certain methamphetamine-related offenses for seven years.

In addition, PC 292 requires pharmacists to “counsel with the person seeking to purchase the product as to the reasons for needing the product” and allows the pharmacist to “decline the sale if the pharmacist believes the sale is not for a legitimate purpose.”¹⁷

See Appendix C for an overview of Tennessee’s methamphetamine-related laws.

Other States’ Enhanced Methamphetamine Precursor Control Policies

Many states, including Tennessee, have implemented policies in addition to the federal

requirements to better control access to pharmacy precursors of methamphetamine. The primary tools used include:

- electronic tracking systems;
- prescription requirements for pharmacy precursors to methamphetamine;
- lower precursor purchase limits;
- additional precursor controls:
 - methamphetamine offender registries;
 - limitations based on area of residency.

Appendix E provides a comparison of states' enhanced precursor control policies.

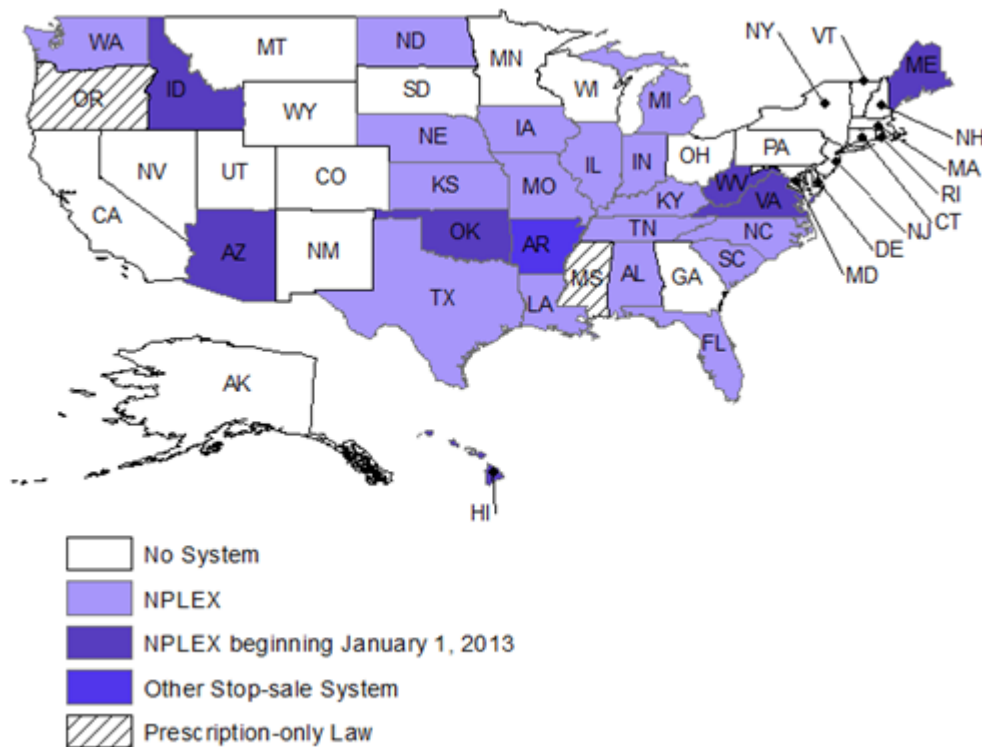
Electronic Tracking Systems

Electronic tracking systems require retailers to report identifying and sales transaction information for sales of ephedrine and pseudoephedrine.

Oklahoma became the first state to implement a statewide methamphetamine precursor electronic tracking system in 2006.

The two primary types of tracking systems are: (1) lead-generating systems and (2) stop-sale systems. With a lead-generating system, retailers collect and provide law enforcement the precursor sales log information either electronically or in paper form. Reporting requirements by federal law and in many states, including Tennessee prior to 2012, require only written logs, not electronic. Although not required by law, many retailers implemented electronic systems to meet the reporting requirements, and transmit their sales electronically at specified intervals, not instantaneously, to law enforcement. The data is compiled and analyzed to assist law enforcement in identifying and developing cases against potential individuals who exceed the purchase limits for precursors.

Exhibit 4: States using pharmacy precursor electronic tracking systems and prescription-only policies



Source: Appriss, Inc., National Association of State Controlled Substances Authorities, 2012; OREA review of state laws.

A stop-sale system electronically records all precursor sales in real time and alerts the pharmacy staff to stop a sale that will exceed the purchase limit. The National Precursor Log Exchange (NPLEx), developed by the software vendor Apriss, Inc., is the most common system states use to electronically track sales of pseudoephedrine in real time. The National Association of Drug Diversion Investigators (NADDI), with funding from the Consumer Healthcare Products Association (CHPA),¹⁸ will provide NPLEx free of charge to states that have adopted legislation requiring real-time electronic monitoring of precursor purchases and that agree to use the system. NPLEx also has features that law enforcement can use to develop leads on individuals suspected of diverting pharmacy precursors to methamphetamine production.

Since 2008, 25 states have approved legislation for a statewide, stop-sale electronic tracking system (according to data reported as of June 30, 2012). Of the 25 states, all but Arkansas use or will use the National Precursor Log Exchange (NPLEx) system by January 2013.¹⁹ (See Exhibit 4 and Appendix E.)

Tennessee uses both stop-sale and lead-generating systems. Tennessee pharmacies implemented NPLEx in January 2012. NPLEx records sales of precursors in all stores in all participating states and issues a stop-sale alert to pharmacists if a purchase exceeds the daily or monthly amount allowed.²⁰ Law enforcement also has access to NPLEx to monitor and investigate suspects purchasing pseudoephedrine for illicit purposes. In addition, the NPLEx purchase data is provided to the TMPTF's Tennessee Methamphetamine Intelligence System (TMIS). TMIS was developed in 2005 as a non-mandatory lead-generating system. TMIS allows further analysis to develop intelligence and leads, which can assist law enforcement officers in identifying and arresting potential methamphetamine offenders.

Prescription-only Requirements

In 1976, the Food and Drug Administration ruled that pseudoephedrine could be sold over the counter. Two states, Oregon in July 2006, and Mississippi in July 2010, have classified ephedrine and pseudoephedrine as Schedule III controlled substances available only through prescription and subject to their state's prescription monitoring programs. In Missouri, 71 local governments have enacted ordinances requiring a prescription for pseudoephedrine. Requiring a prescription for ephedrine and pseudoephedrine further restricts access to these methamphetamine precursors.

Lower Purchase Limits

The CMEA maximum amount of methamphetamine pharmacy precursors that can be purchased without a doctor's prescription is nine grams per 30 days. Several states (Alaska, Arkansas, Illinois, Iowa, Indiana, Minnesota, and Wisconsin) have reduced the maximum amount to between six grams and 7.5 grams. The reasoning is that restricting the maximum monthly purchase should not affect persons purchasing pseudoephedrine for legitimate purposes. The maximum daily dose of pseudoephedrine is 240 milligrams, which equals 7.2 grams if taken daily for 30 days. Additional states are considering reducing the limit.²¹

Exhibit 5 shows the number of tablets of pseudoephedrine at different strengths that may be purchased every 30 days compared to the recommended dosage if taken daily for 30 days. For example, given current packaging, an individual can purchase 45 pseudoephedrine tablets (240 milligrams per tablet) every 30 days. The purchase limits allow an individual an additional 15 tablets over the recommended dosage of one tablet per 24 hours.

Other State Precursor Controls

Methamphetamine Offender Registries: Seven states, including Tennessee, maintain a public

registry of individuals convicted of certain methamphetamine related offenses. PC 292 in Tennessee prohibits persons on the Tennessee Methamphetamine Offender Registry from purchasing a methamphetamine pharmacy precursor. Alabama and Oklahoma also block pharmacy precursor sales to offenders on their registries.

Residency Requirements: Two states have added residency-based controls on the sale of precursors. Only Arkansas residents can purchase pharmacy precursors in Arkansas without a prescription. Beginning in August 2012, Alabama requires a prescription for residents of states with a pharmacy precursor prescription-only policy to purchase pharmacy precursors in Alabama.

Exhibit 5: Comparison of maximum number of tablets containing pseudoephedrine that an individual can legally purchase and recommended dosage if taken daily for 30 days

Pseudoephedrine Sulfate Strength	Recommended Dosage (a)	Number of Tablets if taken 24/7 for 30 days at recommended dosage (b)	Tablets in 30-day 9 g Purchase Limit (c)	Maximum Tablets Purchasable based on Current Packaging (d)	30-day Purchase Limits Compared to Dosage (e) (b) – (d)
30 mg	2 tablets every 4 to 6 hours	240 to 360	389	380	+140 to -20
120 mg	1 tablet every 12 hours	60	97	90	+30
240 mg	1 tablet every 24 hours	30	48	45	+ 15

Sources: OREA analysis based on information from the Drug Enforcement Administration and the Consumer Healthcare Products Association.

ANALYSIS - IMPACT OF METHAMPHETAMINE PRECURSOR CONTROL POLICIES

The primary purpose of methamphetamine precursor control policies is to prevent the production of methamphetamine in small domestic labs by limiting access to and diversion of the essential pharmacy precursors for that illicit purpose. Other factors, such as the availability of methamphetamine imported from other countries and states, reduce the ability of precursor control policies to impact methamphetamine use and abuse.

The relatively short history of precursor control policies, as well as limitations of available crime and drug use data, limits the strength of

conclusions that can be drawn about the impact of particular precursor control laws on the production of methamphetamine in small labs. Despite the uncertainty, the information included in this report is for policymakers' consideration in addressing the continuing problems associated with methamphetamine production.

Data Limitations

Measurements of the extent of methamphetamine use, the illegal possession and production of methamphetamine, and sales of pharmacy precursors are limited. Crime statistics

reflect the extent that law enforcement is able to discover illegal activities and arrest offenders. Data on the number of offenders arrested for methamphetamine offenses and the number of clandestine methamphetamine labs seized reflects the prevalence of that illegal activity to an extent, but also reflects the emphasis of law enforcement on discovering such activity and the availability of funds to pay for the cleanup of the toxic waste left by methamphetamine labs. Arrest and conviction statistics represent culminating actions of investigations and may underestimate patterns of criminal activity that are involved in methamphetamine production.

Crime statistics or drug use statistics may be affected by numerous factors other than a particular public policy, and trend changes may be influenced by availability of other sources of the drug or by changes in the choice of drugs.

Sales data for pharmacy precursors over time and by state are not publicly available. Data provided to OREA by CHPA was not sufficient to determine comparable sales over time or for comparison among states. Sales data included in this report are for Tennessee from TMIS or NPLeX.

EPIC Data Limitations

The primary source of information on methamphetamine production has been the number of methamphetamine lab incidents law enforcement agencies *voluntarily report* to the Drug Enforcement Administration's El Paso Intelligence Center (EPIC), National Clandestine Laboratory Seizure System (NCLSS). EPIC maintains the only national database of such incidents, but has not been considered a complete record of all incidents because of incomplete reporting or processing differences by EPIC. The number of incidents reported by EPIC is used in most studies of methamphetamine production and follows the trends reported in Tennessee and nationally. For that

reason, and because more complete quantitative measures are not available, this study uses EPIC methamphetamine lab incident data as a measure of the impact of precursor control policies.

To increase the completeness of their records, between June and October 2012, EPIC added over 30,000 lab incidents to their database. These incidents had received cleanup funding from the Drug Enforcement Administration between 2000 and 2011, but corresponding incidents were not found in the EPIC database. This study reports the revised EPIC lab incident statistics as of October 4, 2012, when comparing states, unless specifically noted.

Tennessee-specific data used in this report reflect the incidents reported by the TMPTF. The TMPTF developed a procedure through the TMIS to ensure more accurate reporting of incidents. Until February 2011, all Tennessee labs receiving federal cleanup funding were also reported through TMIS to EPIC. The TMPTF has been working with EPIC to reconcile the number of incidents reported by EPIC. EPIC numbers reported as of June 2012 were fewer than incidents reported by the TMPTF; EPIC numbers as of October 2012 are greater than the TMPTF numbers. Through 2010, the variations followed the same trend.

Because several factors affected the comparability of the incidents reported in 2011 compared to prior years, EPIC lab incidents for 2011 are not included in the analysis in this report. EPIC lab incident statistics for six Southern or Midwestern states (Alabama, Arkansas, Florida, Georgia, Louisiana, and Michigan) in 2011 were significantly lower than 2010. Follow-up with law enforcement officials in those states by OREA indicated the decrease primarily reflects the loss of federal cleanup funding in 2011. Without federal funds for cleanup, law enforcement agencies were less proactive in searching for methamphetamine labs. Also, many states required EPIC reporting when federal funds

were used to clean up labs found; without the funding, local agencies were less likely to report incidents to EPIC. Tennessee's revised EPIC numbers for 2011 as of October 2012, are significantly greater than reported by the TMPTF; additional review is needed to determine accuracy of the difference.

Impact of Precursor Sales Limitations

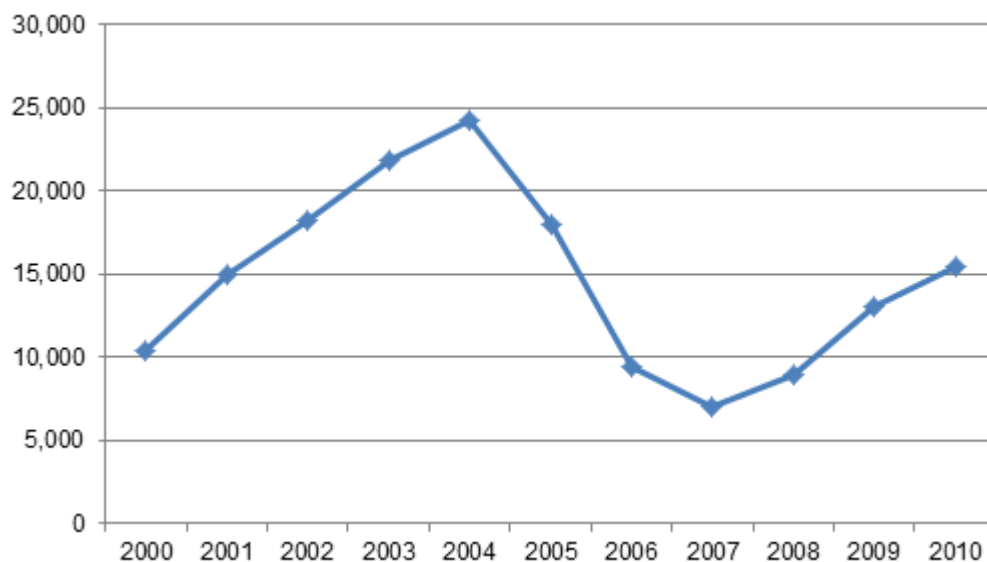
Methamphetamine production, as measured by the number of methamphetamine lab incidents, decreased following federal and state methamphetamine pharmacy precursor sales limitation policies between 2004 and 2006; in 2007 the number of incidents began to increase in several states, including Tennessee. As shown in Exhibit 6, methamphetamine lab incidents in the U.S. increased significantly from about 10,000 in 2000 to about 24,000 in 2004. Lab incidents decreased significantly from 2004 through 2007, following initial states' policies in 2004 and 2005 and the 2006 implementation of the federal CMEA law that restricted access to pharmacy precursors of

methamphetamine in the U.S. The U.S. Department of Justice attributed the decrease to the sales limitation policies.²² The number of incidents began to rise again in 2007 and reached over 15,000 incidents in 2010.

According to the U.S. Department of Justice, domestic methamphetamine production increased in the U.S. in 2007 after Mexican laws progressively restricted and eventually banned importation of pseudoephedrine beginning in 2005. However, by 2008, Mexican drug organizations had adapted their operating procedures to circumvent the precursor

The National Methamphetamine and Pharmaceuticals Initiative (NMPI) is a national strategy, intelligence sharing, and training initiative to address methamphetamine and other pharmaceutical drug crimes in the U.S. The NMPI Advisory Board includes federal, state, and local law enforcement and prosecutorial agency representatives from across the country. NMPI is funded by the Office of National Drug Control Policy.

Exhibit 6: Methamphetamine lab incidents in the United States, 2000 through 2010



Source: El Paso Intelligence Center (EPIC), National Seizure System, 2000 to 2010, as of October 4, 2012.

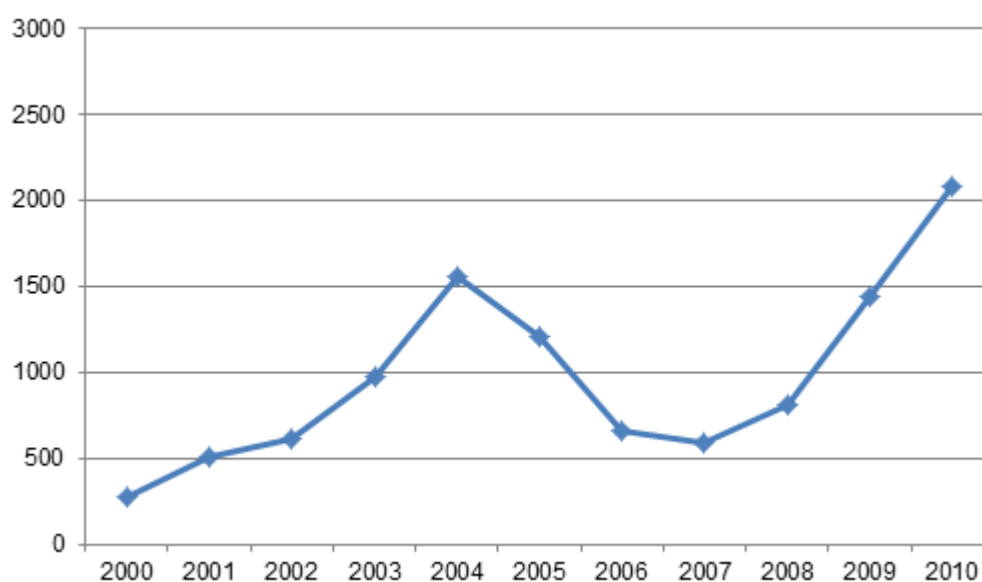
import bans, and methamphetamine production in Mexico increased again in 2009. Production in the U.S. has shown no corresponding decline since the resumption of production in Mexico. This may be due in part to increased demand for methamphetamine and to the ability of individuals and groups to avoid U.S. precursor access restrictions.²³

Methamphetamine lab incidents in Tennessee have followed the national trend. Exhibit 7 shows the number of methamphetamine lab incidents reported by law enforcement agencies in Tennessee to the TMIS from 2000 through 2010. The Tennessee graph closely tracks the national graph, starting from a low of 271 incidents in 2000, rising to 1,559 incidents in 2004, falling to 589 incidents in 2007, and rising again to 2,082 incidents in 2010. The number of lab incidents reported in 2011 was slightly down to 1,687, but remained close to historically high levels. The TMPTF attributes the decline in 2011 to the loss of federal funding for lab cleanup for four months of 2011, and the lack of available financial resources among Tennessee local governments to pay cleanup costs.

Law enforcement, both in Tennessee and nationally, attribute the increase and high numbers of methamphetamine labs from 2008 through 2010 to methamphetamine producers' ability to work around the pharmacy precursor sales limitation policies, especially for pseudoephedrine, put in place from 2004 through 2006. To exceed individual pseudoephedrine purchase limitations, methamphetamine producers pay others – commonly referred to as “smurfs” – to purchase the required pseudoephedrine used to produce methamphetamine.²⁴ In 2011, the National Methamphetamine Pharmaceutical Initiatives (NMPI) Advisory Board reported that smurfs were paid as much as \$80 for a \$7 box of pseudoephedrine in 2010.²⁵ In many cases, smurfs are also methamphetamine users or addicts and are paid for their efforts with methamphetamine from the producer.

To address the problem of “smurfing,” some states, including Tennessee, implemented electronic tracking systems to better track purchases and to enforce the precursor limitations.

Exhibit 7: Methamphetamine lab incidents in Tennessee, 1999–2010



Source: Tennessee Methamphetamine and Pharmaceutical Task Force, Tennessee Methamphetamine Intelligence System, as of February 2011.

Impact of Electronic Tracking of Pharmacy Precursor Sales

Methamphetamine lab incident trends in the four states operating statewide electronic tracking for pharmacy precursors for multiple years – Arkansas, Kentucky, Oklahoma, and Tennessee – do not differ from other high methamphetamine production states. A small percentage of over-the-limit sales were blocked in the four states that used NPLEx in 2010; methamphetamine lab incidents in 2010 did not decrease in those states.

Prior to 2010, three states – Arkansas, Oklahoma, and Kentucky – used a statewide, electronic, stop-sale tracking system. Oklahoma implemented its system in 2006, which was updated in 2010; Oklahoma is moving to NPLEx in 2013. Arkansas deployed their system, developed by LeadsonLabs, in May 2008. Kentucky implemented a statewide system in 2008. Kentucky’s system, Meth Check, was developed by Appriss, Inc., and became the prototype for NPLEx. NPLEx has been adopted by 23 other states since 2010. (See Exhibit 8.)

Tennessee implemented the Tennessee Methamphetamine Intelligence System (TMIS) in

2005, which included voluntary, electronic reporting of precursor sales by pharmacies. By 2008, the TMPTF estimated that pharmacies voluntarily were submitting electronically approximately 85 percent of precursor sales data to TMIS. Tennessee law did not require pharmacies to report in real time or for TMIS to issue stop-sale alerts of precursor purchases over the statutory limits.²⁶ Instead, law enforcement could access the system to develop leads from suspicious purchase activity.

Ten states, each of which reported more than 500 methamphetamine lab incidents in 2010, account for 88 percent of the incidents reported in 2010. Four of the 10 states, Arkansas, Oklahoma, Kentucky, and Tennessee, had statewide tracking systems. Exhibit 9 compares the number of methamphetamine lab incidents for those 10 high methamphetamine lab states, four with tracking systems and six without tracking systems. Exhibit 9 also shows the change in lab incidents in those

OREA defines high methamphetamine production states as the 10 states with over 500 methamphetamine lab incidents in 2010. Approximately 88 percent of incidents reported nationally were in these 10 states.

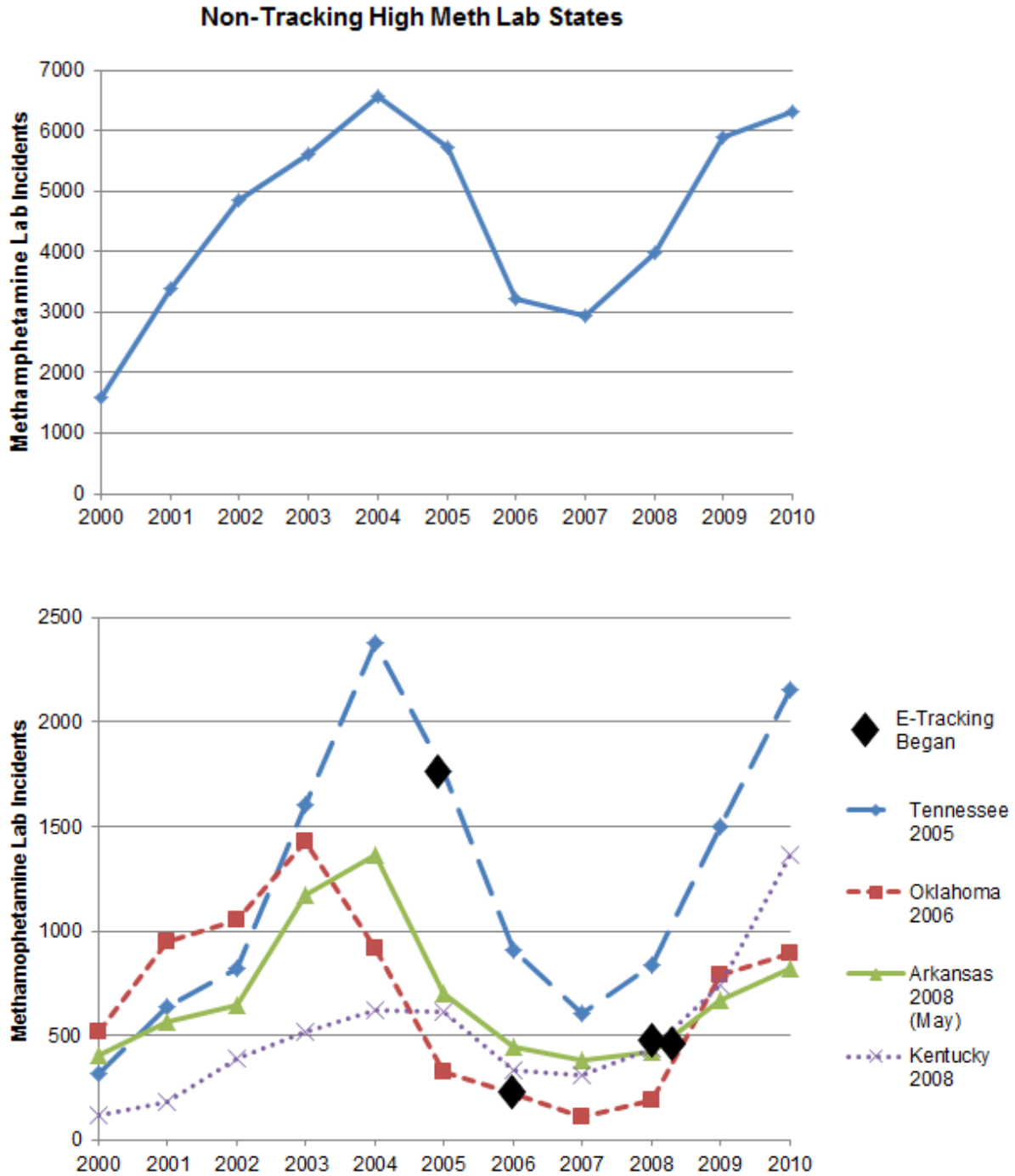
Exhibit 8: State adoption of pharmacy precursor electronic tracking by year effective

2005	2006	2007	2008	2009	2010	2011	2012	2013
TN	OK		KY		IL	MO	MI	VA
			AR		LA	KS	IN	WV
					IA	SC	TN	ME
						WA	NC	ID
						ND	TX	OK
						AL	NE	HI
						FL		AZ

Note: Tennessee’s system from 2005 through 2011 was a lead-generating, voluntary system; all other states adopted statewide, stop-sale systems.

Sources: National Alliance of Model State Drug Laws and Appriss, Inc.

Exhibit 9: Methamphetamine lab incidents before and after pharmacy precursor electronic tracking (ET) compared to non-tracking states



Note: Tracking High Meth Lab States in 2010 includes the six states (Missouri, Indiana, Mississippi, Michigan, Alabama, and Florida) with over 500 methamphetamine lab incidents reported to EPIC for 2010 that did not have statewide electronic tracking systems.

Sources: El Paso Intelligence Center (EPIC), National Seizure System, 2000 through 2010, as of October 4, 2012, and National Alliance of Model State Drug Laws.

states with electronic tracking systems before and after implementation of the systems.

Overall, those 10 states saw a 54 percent decrease in methamphetamine lab incidents, ranging from 41 percent to 88 percent, between 2004 and 2007. This period followed state and federal pharmacy precursor sales limitation laws. Oklahoma had the greatest decrease of 88 percent, from 916 incidents in 2004 to 114 in 2007. Lab incidents rose significantly in the 10 states between 2007 and 2010, ranging from 54 percent to 684 percent. The states with some type of tracking system had high increases – Oklahoma (684 percent), Kentucky (339 percent), Tennessee (258 percent), and Arkansas (117 percent). States that adopted NPLEx in 2010 – Illinois, Louisiana, and Iowa – also saw increases in methamphetamine lab incidents in the first year of implementation.

Initial results for 2010 indicate that NPLEx was blocking sales over the allowable purchase limit, but the number of methamphetamine lab incidents was not decreasing. For example, in Kentucky, NPLEx blocked two percent of sales in 2010 and the number of methamphetamine labs increased by 83 percent (744 to 1,361). Other states that adopted NPLEx in 2010 – Illinois, Louisiana, and Iowa – reported two percent of sales blocked and saw an increase in methamphetamine lab incidents ranging from 13 percent to 34 percent in the first year. (See Appendix A for data.)

Possible Reasons for Labs Increasing in States with Tracking Systems

Expanded Smurfing

Offenders have developed several ways to circumvent the additional controls of electronic tracking systems. Law enforcement has identified three types of smurfing: (1) group, (2) exceedance, and (3) false identification. Methamphetamine producers who utilize group smurfing rely on individuals to purchase pseudoephedrine within the

legal limits. Although it is illegal to purchase pseudoephedrine for others to make methamphetamine, individual smurfs can stay within the purchasing limits provided in TCA 39-17-433. This method reduces the probability of identification and arrest with both lead-generating and real-time, stop-sale electronic tracking systems. Methamphetamine producers can use a larger number of smurfs to increase their supply of the precursors required to make methamphetamine. The NMPI notes that some producers have developed smurfing groups to collect large amounts of precursors across cities, states, or regions to supply larger scale methamphetamine labs.

Exceedance smurfing is when individuals shop at multiple pharmacies within an area or across state lines and make pseudoephedrine purchases within the allowable daily limits. Lead-generating tracking and logging systems in many states, including Tennessee prior to 2012, were not able to identify in real time an individual's total amount of pseudoephedrine purchases in a month or whether an additional sale would exceed the limits. An individual could make purchases at several stores within the daily purchase limits without detection. Stop-sale systems with interstate tracking capabilities address this concern for attempted purchases over the limits by a particular individual identification.

False identification smurfing occurs when individuals use multiple photo identifications, many fraudulent, to purchase pseudoephedrine under different identities. Each identity allows purchase up to the allowable limits. The use of false identifications limits the effectiveness of stop-sale and lead-generating tracking systems.

Improved Data with Tracking Systems

Tracking systems may be less effective at preventing methamphetamine labs than at assisting law enforcement in the discovery of

methamphetamine labs. Law enforcement can use data from electronic systems to identify and monitor individuals who purchase large amounts of methamphetamine pharmacy precursors, which can lead to the discovery of methamphetamine labs. Lead-generating systems, which do not stop sales over the maximum limit, provide information on total purchases, which allows law enforcement to build a case against individuals purchasing precursors over the limit. Stop-sale systems identify individuals attempting to purchase over the limit or who regularly purchase at the limit, which is useful for law enforcement to develop leads on methamphetamine production cases, but may not directly prevent the establishment of methamphetamine production facilities.

One-pot Labs

The increase in the number of methamphetamine lab incidents reported may be related to a shift to low-yield production methods, often referred to as the “one-pot” or “shake-and-bake” method. Using this simplified method, methamphetamine producers can quickly produce small batches of methamphetamine more frequently, and in multiple locations. This method requires a smaller amount of the pharmacy precursors, thus increasing the number of potential producers. This change in production method may affect the comparability of methamphetamine lab incidents statistics over time. The portability of this method may also affect the public health, safety, and environmental issues related to methamphetamine production, particularly the public resources required to discover labs, clean up their toxic waste, and protect children exposed to methamphetamine production.

The Consumer Healthcare Products Association (CHPA) attributes the increase in the number of methamphetamine lab incidents in some states to the change to the smaller “one-pot” labs, which results in offenders making methamphetamine more

frequently so there are more discarded labs found. CHPA contends that under earlier production methods there were fewer, but larger and more dangerous, methamphetamine labs. With the increase in smaller labs, more labs exist, but the amount of methamphetamine produced by the labs is less.²⁷

EPIC reporting does not currently account for lab capacity in enough detail to assess whether the change to one-pot labs has resulted in more or less methamphetamine produced. EPIC lab incident data includes all equipment, chemicals, working methamphetamine labs, or methamphetamine lab waste reported. The smallest category of reporting lab capacity is “below 2 ounces” of methamphetamine (56.7 grams). A one-pot lab produces between one and three grams of methamphetamine. EPIC reporting does not report the number of individual one-pot labs found: a site with hundreds of one-pot labs is counted the same as the discovery of a one-pot lab on the side of the road or a traditional small lab in a house.

Law enforcement and others argue that one-pot labs do not reduce and may increase the health and environmental risks associated with methamphetamine production. Traditional small labs are fewer in number and have the potential for larger explosions. However, the one-pot method requires more labs to produce the same amount of methamphetamine, and thus increases the likelihood of accidents and explosions for producers and increases exposure to toxicity from the labs.²⁸ Earlier production methods were more likely to result in chemical burns, where one-pot production is more likely to result in thermal burns, which are more costly to treat. One-pot labs can easily explode and burn the producer or others nearby, if the bottle is incorrectly opened.

Traditional small labs leave harmful chemical residue in the dedicated space where

methamphetamine is produced. One-pot labs are not confined to a dedicated space and may be found in cars, motels, and other public places. Discarded one-pot labs containing poisonous residue are often found on the side of the road or with other trash, exposing larger numbers of unsuspecting people to the danger of explosions and chemical residue.

Preliminary Assessment of Impact of NPLeX in Tennessee

As required by PC 292, Tennessee pharmacies began to record all sales of pharmacy precursors using NPLeX in January 2012. The intent of the system is to decrease sales of precursors to persons who may divert them to the production of methamphetamine, and thereby to reduce the number of small, domestic methamphetamine labs in Tennessee. NPLeX is designed to identify and issue stop-sale alerts when an individual attempts to purchase more than the statutory limits. NPLeX uses data from Tennessee, other NPLeX states, and from other pharmacies using NPLeX voluntarily. Law enforcement has access to NPLeX sales data to monitor sales, to identify individuals purchasing precursors and to request alerts when suspicious individuals purchase precursors. NPLeX also

provides precursor sales data to the Tennessee Methamphetamine Intelligence System (TMIS), which TMIS uses to develop intelligence reports to identify suspects diverting pharmacy precursors to methamphetamine production.

To meet the January 2013 statutory reporting deadline, OREA is including information on the impact of NPLeX in the first six to eight months of statewide, mandatory operation of NPLeX in Tennessee. Information is included on the sales of pharmacy precursors and methamphetamine lab incidents. In an effort to evaluate the use and effectiveness of NPLeX since its statewide implementation in January 2012, OREA conducted an electronic survey of Tennessee law enforcement officers and pharmacists in August and September 2012. The intent of the survey was to ascertain the perceptions of the direct users of NPLeX and the individuals that have contact with persons attempting to circumvent the system. In addition, law enforcement was asked about changes in methamphetamine production in their jurisdictions since the implementation of NPLeX in January 2012. Survey recipients were also asked their opinion of the effectiveness of different policy options used to control the diversion of

NPLeX Blocked Sales Data Consistency Concern

Some pharmacies' information systems inconsistently report blocked sales to NPLeX. Data transmission from Appriss's NPLeX system to the TMPTF's Tennessee Methamphetamine Intelligence System (TMIS) has included some transactions classified as "inquiries." These transactions are not clearly identified as purchases or blocked sales. Before transmission to NPLeX, some pharmacies' point-of-sale information systems internally process sales requests as "inquiries" to determine if an individual's purchase is within the statutory requirements. If so, the system records the purchase as a sale. If not, the pharmacist is alerted to refuse the sale, but in some pharmacies the system does not record the inquiry as a block. One pharmacy system records both the inquiry and the resulting purchase or block. As a result, data available to law enforcement does not consistently reflect all purchases or blocked sales by individuals from some pharmacies or includes duplicate records for some purchase attempts. Law enforcement uses purchase and block sale information to identify, investigate, and prosecute potential suspects diverting pharmacy precursors to methamphetamine production. A reliable data set would require all pharmacies to consistently and clearly identify all purchase attempts, the purchaser's identity, product information, and whether the sale was allowed or blocked according to the standards established for the NPLeX system.

pseudoephedrine to the production of methamphetamine. (See Appendices F and G for copies of the surveys.)

Changes in Precursor Sales and Methamphetamine Lab Incidents

Change in Methamphetamine Lab Incidents

Methamphetamine lab incidents since the implementation of NPLEEx in January 2012 have not decreased substantially and remain at high levels.²⁹ If incidents continue at the current rate for 2012, incidents are estimated to reach 1,792, the second highest number in recent Tennessee history and the second highest number nationally. Incidents through September 2012 are six percent higher than for the same period in 2011. The TMPTF attributes the lower incidents from March through June in 2011 to a less proactive effort to discover methamphetamine labs by Tennessee law enforcement due to the lack of federal funding for lab site cleanup during that period. Excluding incident data from March through June 2011, Tennessee methamphetamine lab incidents averaged 179 per month in 2011, comparable to the 173.5 incidents per month for 2010. For January through September 2012, lab incidents are averaging 149 per month. (See Exhibit 10.)

Precursor Sales

Same store precursor sales declined an estimated two percent in the first six months of 2012 compared to the same period in 2011. The decline is approximately equivalent to the sales reported blocked by NPLEEx.

Tennessee pharmacies were not required to report precursor sales electronically in 2011; therefore, a direct year-to-year comparison of total sales for all stores is not available.

Comparable sales data for both years

is available for a number of pharmacies representing approximately 63 percent of precursor 2012 sales (in grams). Sales in those pharmacies for which data is available declined approximately two percent. Sales blocked as over-the-purchase limits also totaled approximately two percent.³⁰

Blocked Sales

Through October 2012, approximately three percent of pharmacy precursor purchases (39,352), representing three percent of grams sold (112,507 grams), were reported blocked by pharmacists through NPLEEx. (See Exhibit 11.)

Suspicious Sales

The TMPTF's TMIS has flagged as suspicious about 33 percent of total grams of pharmacy precursors purchased and 12 percent of driver licenses used for purchases from January through September 2012.

Exhibit 10: Tennessee methamphetamine lab incidents by month, January 2009 through September 2012

	2009	2010	2011*	2012
January	113	154	236	153
February	111	140	190	159
March	138	219	77	176
April	108	178	90	146
May	72	140	72	127
June	102	143	86	145
July	104	156	169	149
August	127	162	194	153
September	136	189	157	136
October	148	210	137	
November	134	214	129	
December	144	177	150	
Total	1,437	2,082	1,687	1,344
Average Monthly	119.8	173.5	140.6*	149.3

* The TMPTF attributes the lower level of methamphetamine lab incidents from March through June 2011 to the lack of federal funding for methamphetamine lab cleanup. during that time period. Excluding those four months, lab incidents averaged 179 per month in 2011.

Source: Tennessee Methamphetamine and Pharmaceutical Task Force. Completed EPIC data for 2012 by month was not readily available.

This is a decrease from 47 percent of grams purchased and 18 percent of driver licenses used in that period in 2011.³¹ Sales and driver licenses are flagged by TMIS as suspicious if an individual has purchased over the limits, been arrested or identified by law enforcement at a methamphetamine lab site, been caught in a traffic stop with methamphetamine, or is under investigation for methamphetamine-related activities since 2005. The TMPTF attributes the drop in suspicious sales to the ability of the system to block sales over the limit, as well as the use of false identifications to make multiple purchases within the legal limits

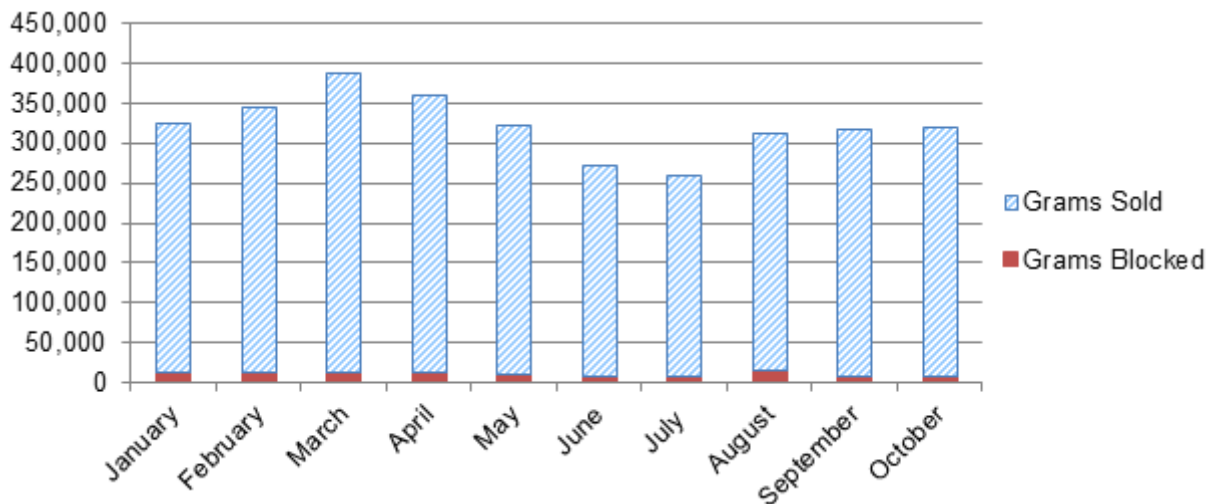
As shown in Exhibit 12, Tennessee’s monthly pharmacy precursor sales based on NPLeX data and flagged by TMIS as suspicious have been fairly constant since January 2012. Other sales that are not suspicious have fluctuated with the seasonality of cold and allergy symptoms.

Number of Purchasers

From January through June 2012, 481,023 individuals purchased pharmacy precursors to methamphetamine. As shown in Exhibit 13, 80 percent bought less than five grams during that period. Purchasers made an average of about two

Exhibit 11: Tennessee pharmacy precursor sales, 2012 by month

	Purchases	Blocks	% Blocked	Grams Sold	Grams Blocked	% Blocked
January	156,875	4,776	3%	311,142	13,232	4%
February	166,926	4,336	3%	334,039	12,368	4%
March	175,088	4,461	2%	375,327	13,012	3%
April	160,051	4,107	3%	348,423	12,408	3%
May	142,672	3,821	3%	312,312	11,362	4%
June	120,202	3,063	2%	264,169	9,060	3%
July	114,455	2,782	2%	251,053	8,093	3%
August	139,732	6,274	4%	296,711	16,154	5%
September	145,834	2,776	2%	308,782	8,123	3%
October	148,303	2,956	2%	311,087	8,695	3%
November						
December						
YTD Total	1,470,138	39,352	3%	3,113,045	112,507	3%



Source: Apriss, Inc., from Tennessee NPLeX purchase data, as of November 2012.

purchases for a total of four grams. The six-month purchase limit for an individual is 54 grams. Less than one percent (3,302 individuals) purchased 30 grams or more.

Individuals using driver licenses flagged by TMIS as suspicious purchased an average of 9.5 grams from January through June 2012, compared to three grams for those using non-suspicious licenses.

Surveys of Tennessee Law Enforcement and Pharmacists

OREA attempted to survey a pharmacist at each retail pharmacy in Tennessee that sells pharmacy precursors. OREA e-mailed the survey to the 482 NPLeX pharmacy administrators for independent and some smaller chain pharmacies compiled by Appriss, the Tennessee Pharmacists' Association, and the Consumer Healthcare Products Association. Those organizations could not provide the e-mail addresses for NPLeX administrators in some large chain stores without corporate approval for their pharmacists to answer the survey. OREA worked with the Tennessee Retail Association, which represents many businesses across

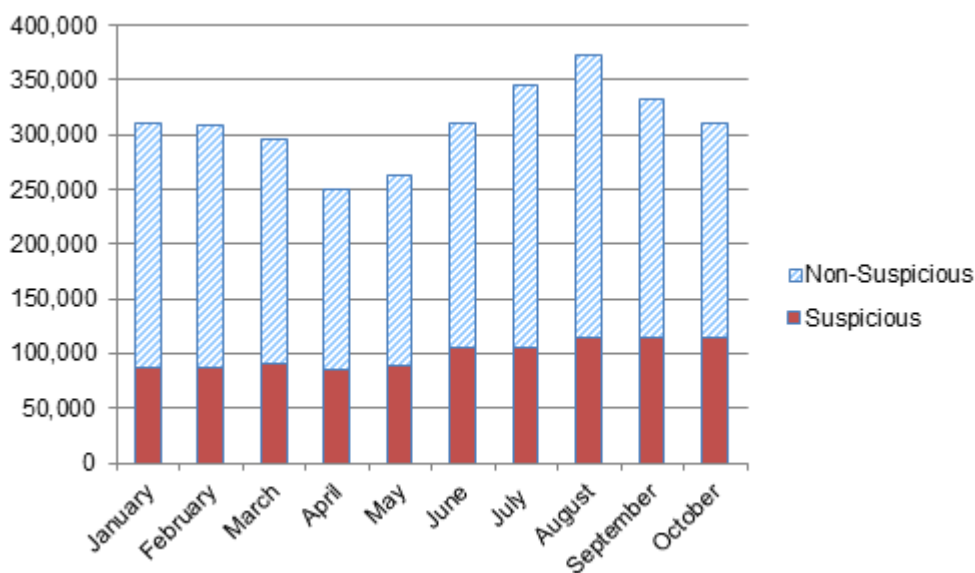
Tennessee, including many chain pharmacies, to get corporate approval and to e-mail the surveys to NPLeX administrators at their stores. The

Exhibit 13: Pharmacy precursor purchasers by cumulative amount, January through June 2012

Amount	# of Purchasers	% of Purchases
< 5 grams	384,566	79.9%
5-10 grams	54,845	11.4%
10-20 grams	28,859	6.0%
20-30 grams	9,451	2.0%
30-40 grams	2,868	0.6%
40-50 grams	426	0.1%
50-54 grams	7	0.0%
> 54 grams	1	0.0%
Total	481,023	100.0%

Source: Appriss, Inc., from Tennessee NPLeX purchase data, September 2012.

Exhibit 12: Tennessee pharmacy precursors sales (in grams), suspicious and non-suspicious, 2012



Source: Tennessee Methamphetamine Intelligence System, as of November 2012.

Tennessee Retail Association has a policy not to disclose its specific members, but noted that major chain pharmacies in Tennessee include CVS Caremark Corporation, Kroger Company, Publix Supermarkets, Inc., Rite Aid Corporation, Target Corporation, Walgreens Company, and Walmart Stores, Inc. The corporate offices of these stores, through the Tennessee Retail Association, gave the following reason for not forwarding the OREA survey to their pharmacists:

Tennessee’s chain pharmacies appreciate the opportunity to provide feedback and information regarding the impact of the NPLEx system, however, because sales data is confidential and often centralized at the headquarters location, many pharmacies will respond to the survey as a corporation rather than from each individual store or pharmacist.³²

OREA received one response from the corporate headquarters of one of these large chains of pharmacies on behalf of all their 254 pharmacies statewide. The response was omitted because the purpose of the survey was to gain the perspective of individual pharmacists who work closest to the problem.

OREA worked with the Tennessee District Attorneys General Conference, the Tennessee Sheriffs’ Association, and the Tennessee Association of Chiefs of Police to get one survey response from each jurisdiction of these law enforcement agencies in Tennessee.

Each survey recipient had a total of four weeks to respond to the survey, with a reminder sent after two weeks. OREA worked with pharmacies and law enforcement agencies to omit duplicate responses. Response rates, excluding duplicate responses, are listed in Exhibit 14.

Exhibit 14: OREA survey of Tennessee law enforcement and pharmacists – response rate and respondents, September 2012

	# Surveyed	Responses	Response Rate	% of Responses
Law Enforcement				
District Attorneys/Drug Task Forces	31	22	71%	21%
Sheriffs	95	35	37%	34%
Police Chiefs	185	47	25%	45%
TOTAL Law Enforcement	311	104	33%	
Pharmacists				
Independent	284	96	34%	55%
Small Chains	185	76	41%	44%
Other	13	2	15%	1%
Subtotal	482	174	36%	
Large Corporate Chains	Corporate Offices did not approve participation from their pharmacists.			

Notes: Responses exclude duplicate responses from law enforcement agencies (10) and pharmacies (6). An additional 19 pharmacist responses were omitted because their store did not sell pseudoephedrine at retail.

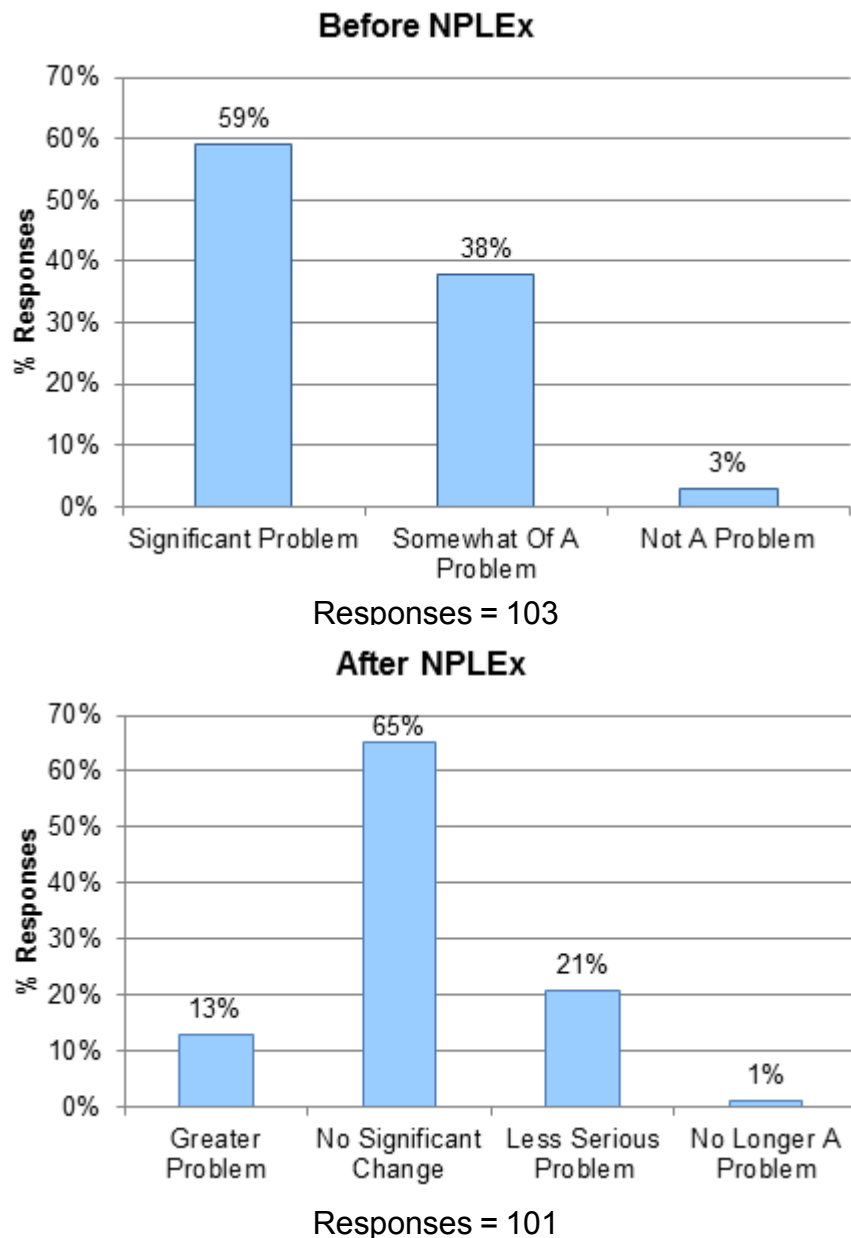
Responses from the surveys are summarized here, but should be used cautiously. Responses are based on the respondents' perceptions after less than nine months of experience using NPLEx. The low response rate from the sheriffs, police chiefs, pharmacists, and especially large chain pharmacists limit the ability to generalize these results to all law enforcement offices or pharmacies. Five of the large chains not responding to the survey accounted for 87 percent of all pseudoephedrine sales in the first six months of 2012; the Tennessee Methamphetamine Intelligence System flagged 29 percent of these sales as suspicious for diversion to methamphetamine.

Survey Response: Law Enforcement

NPLEx Use: The majority of law enforcement officers responding to the survey are using NPLEx and rate NPLEx highly for use and usefulness. About 70 percent of law enforcement officers indicated that they had used NPLEx at least sometimes, often, or very often. Twenty-five percent used it very often. Most (94 percent) find NPLEx user-friendly and 90 percent reported no operational issues. Over

85 percent reported the following features of NPLEx as useful or very useful: real-time information, standard activity reports, and ability to query the system for custom reports. A few respondents indicated a preference for the Tennessee Methamphetamine Intelligence System (TMIS) over NPLEx.

Exhibit 15: Law enforcement assessment of methamphetamine lab problem in jurisdiction before and after the implementation of NPLEx



Source: OREA survey of law enforcement officials in Tennessee, July and August 2012.

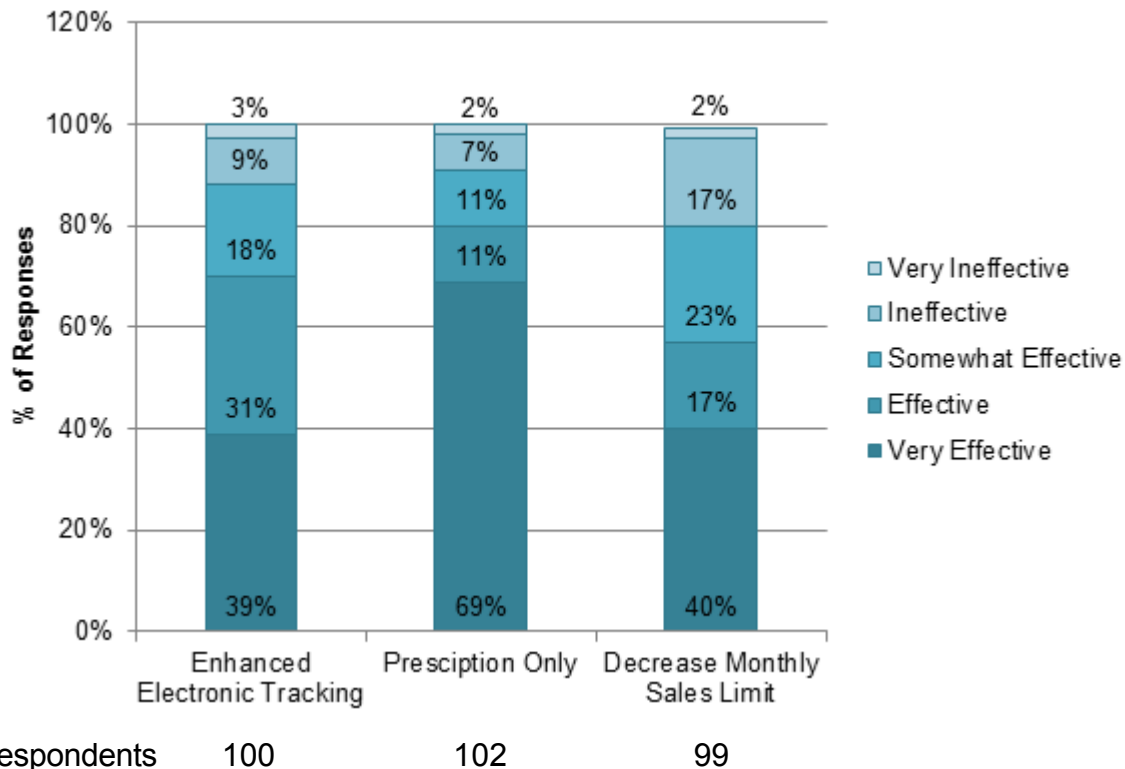
NPLEx Effectiveness: Responses from law enforcement officers indicate that NPLEx has not significantly impacted methamphetamine production in their jurisdictions. Almost all respondents (97 percent) indicated that methamphetamine labs were a problem in their jurisdiction before the implementation of NPLEx: 59 percent rated labs as a significant problem and 38 percent as somewhat of a problem. Most respondents (65 percent) noticed no change in the problem since the implementation of NPLEx; 21 percent indicated labs were a less serious problem and 13 percent indicated they were a more serious problem. (See Exhibit 15.)

Respondents credited NPLEx with both positive and negative effects on their methamphetamine lab problems. Nine jurisdictions credited the use of NPLEx with reducing, or maintaining at low levels,

their methamphetamine lab problem by providing law enforcement additional information to track sales and suspects. Of respondents reporting a greater or still significant lab problem since NPLEx, seven noted that by blocking sales, NPLEx is making it more difficult for law enforcement to identify and build cases against potential smurfs. Respondents also noted that offenders are circumventing the system by using a larger number of persons to purchase precursors for producers without exceeding the sales limits.

Respondents perceived that sales of pseudoephedrine had not changed (42 percent) or had decreased slightly (41 percent) since the implementation of NPLEx. Respondents also thought the amount of pseudoephedrine diverted had not changed (44 percent) or had decreased slightly (32 percent).

Exhibit 16: Law enforcement’s perception of effectiveness of policy options to control the diversion of pseudoephedrine to methamphetamine production



Source: OREA survey of law enforcement officials in Tennessee, July and August 2012.

NPLEx Impact: A large majority of law enforcement officers (82 percent) believed individuals were circumventing the NPLEx system to obtain pseudoephedrine to divert to methamphetamine production. Of those, most indicated that individuals are paying others to buy pseudoephedrine for methamphetamine producers often (94 percent) or occasionally (six percent). Approximately 72 percent indicated that individuals were using false identification: 34 percent marked often and 28 marked occasionally. A large percentage indicated individuals were circumventing NPLEx often or occasionally by buying in another state (80 percent) or buying from multiple pharmacies and exceeding purchase limits (75 percent).

Most respondents saw no change or some increase in arrests for methamphetamine manufacturing and precursor-related arrests based on the intelligence information provided by NPLEx.

Law Enforcement’s Perception of Policy Options: The largest percentage of law enforcement respondents rated requiring a prescription (69 percent) as very effective in controlling the diversion of pseudoephedrine to methamphetamine production; nine percent rated it as ineffective or very ineffective.

Approximately 39 percent perceived enhanced electronic tracking as very effective; 12 percent rated it as ineffective or very ineffective. Decreasing the sales limits for pseudoephedrine purchases was seen by 40 percent as a very effective policy option; 19 percent rated it as ineffective or very ineffective. (See Exhibit 16.)

Survey Response: Pharmacists

NPLEx Use: The majority of pharmacists responding to the survey rated NPLEx highly for use and usefulness. Most pharmacists (89 percent) indicated that NPLEx is user friendly and 79 percent had no operational issues. High

percentages of pharmacists rated the following features of NPLEx as useful or very useful: real-time information (90 percent), stop-sale alerts (89 percent), and ability to query the system for sales reports (73 percent).

About 75 percent of pharmacists reported that using NPLEx has increased the time it takes to process a pseudoephedrine purchase, and 24 percent indicated a substantial increase. About 70 percent indicated that there had been no change, or that there had been an increase, in legitimate consumer access to pseudoephedrine since the implementation of NPLEx.

NPLEx Effectiveness: A large percentage of pharmacists (76 percent) indicated that NPLEx has been effective or very effective in reducing the diversion of pseudoephedrine to the illicit production of methamphetamine. Half of pharmacists noted no change in pseudoephedrine sales; 46 percent noted a decrease in sales; and 12 percent noted a significant decrease in sales since the implementation of NPLEx. Based on their experience, 58 percent of pharmacists estimated that 10 percent or less of pseudoephedrine sales was diverted to methamphetamine production before NPLEx; after NPLEx, 78 percent estimated that 10 percent or less is diverted. Thirteen percent of pharmacists estimated that more than 30 percent of pseudoephedrine sales were potentially diverted in their stores before NPLEx compared to eight percent of pharmacists after NPLEx. (See Exhibit 17.)

Comments by nine pharmacists indicated that some pharmacies have limited sales of pseudoephedrine by requiring a prescription, not selling the products, or removing the products from public view.

NPLEx Impact: A majority of pharmacists (62 percent) believed that individuals were

circumventing the NPLeX system to obtain pseudoephedrine to divert to methamphetamine. Of those, 96 percent indicated that individuals are paying others to buy pseudoephedrine for methamphetamine producers often (63 percent) or occasionally (33 percent). Approximately 57 percent indicated that individuals were using false identification. A large percentage (84 percent) indicated individuals were circumventing NPLeX by buying in another state or were buying from multiple pharmacies and exceeding purchase limits (49 percent).

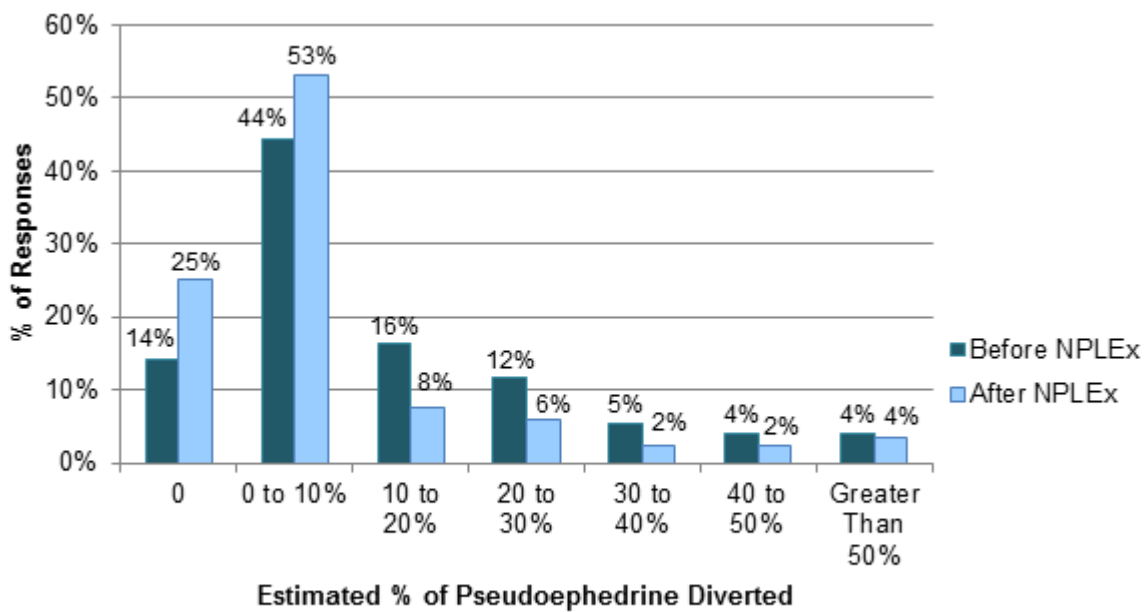
Pharmacists' Perception of Policy Options: The largest percentage of pharmacists responding to the survey (81 percent) rated enhanced electronic tracking as very effective or effective in controlling the diversion of pseudoephedrine to methamphetamine production. Two percent rated it as ineffective or very ineffective. About 60

percent perceive requiring a prescription as very effective or effective; 23 percent rated prescription-only as ineffective or very ineffective. Decreasing the sales limits for pseudoephedrine purchases was seen by 31 percent as a very effective or effective policy option; 38 percent rated it as ineffective or very ineffective. (See Exhibit 18.)

Impact of Precursor Prescription-only Laws

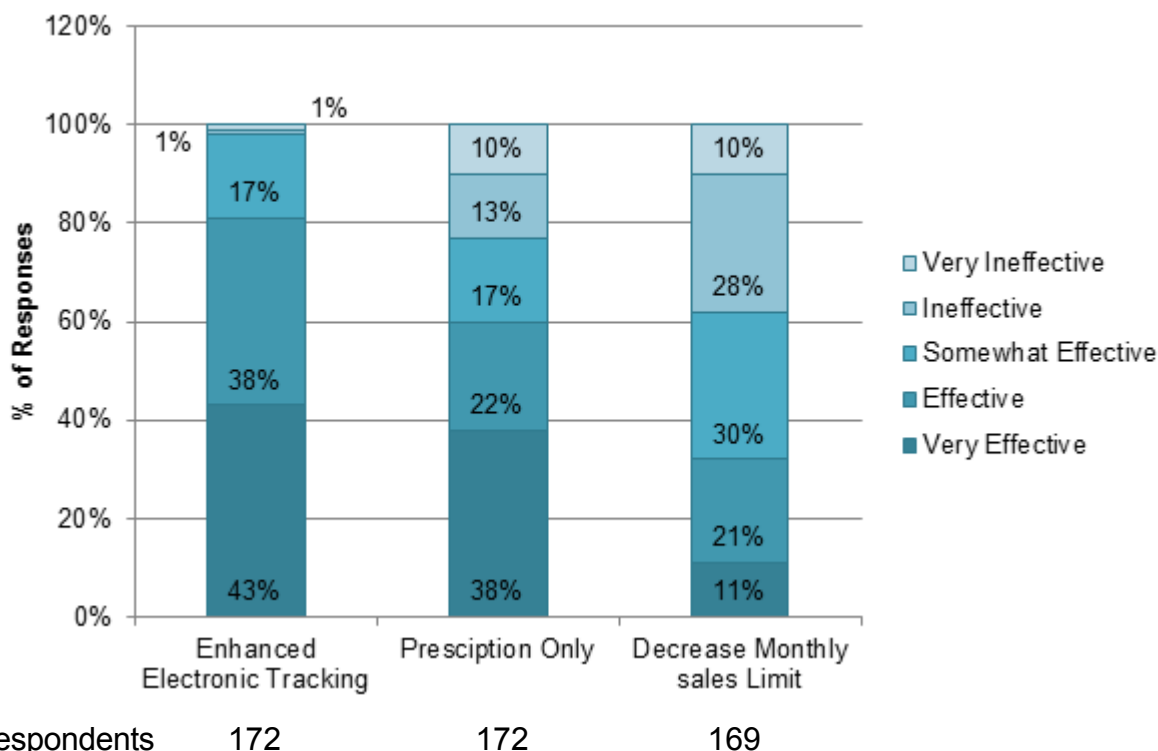
Oregon, Mississippi, and some Missouri local areas saw a decrease in methamphetamine lab incidents after implementing prescription-only policies. Oregon has sustained a low level of incidents over several years. Other factors such as the use, source, and method of production of methamphetamine may also have influenced the decline.

Exhibit 17: Pharmacists' perceptions of pseudoephedrine diverted to methamphetamine production before and up to nine months after the implementation of NPLeX



Respondents = 171

Source: OREA survey of retail pharmacists in Tennessee, July and August 2012.

Exhibit 18: Pharmacists' perception of effectiveness of policy options to control the diversion of pseudoephedrine to methamphetamine production


Source: OREA survey of retail pharmacists in Tennessee, July and August 2012.

Oregon

Oregon implemented a rule, effective November 2004, that pseudoephedrine be placed behind the counter and requiring photo identification for precursor purchase. A rule, effective May 2005, further specified that pseudoephedrine products be placed behind a pharmacy counter and that the purchases be logged. Lab incidents decreased from 632 in 2004 to 232 in 2005. Effective July 2006, Oregon implemented a prescription-only requirement. The number of methamphetamine lab incidents reported in Oregon fell from 232 in 2005 to 67 in 2006, and has remained at low levels since that time (less than 50 per year). Oregon is the only state with a multi-year methamphetamine pharmacy precursor prescription-only requirement. (See Exhibit 19.)

Two studies^{33,34} have concluded that factors other than the prescription-only policy for pharmacy precursors contributed to the decline and sustained low number of methamphetamine labs in Oregon.^B EPIC data, used in both studies, indicates significant declines in methamphetamine lab incidents from 2004 through 2006 in neighboring Washington and California as well as for all other Western states (Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Oregon, and Utah). (See Exhibit 19.) Both studies found that, statistically, the decline and low number of methamphetamine lab incidents in Oregon did not differ significantly from other Western states that did not adopt prescription-only policies. According to the Cunningham, et al., study, seizures in Oregon and other nearby states had already “bottomed out”

^B The Stomberg and Sharma study was funded by a grant by the Consumer Healthcare Products Association to the Cascade Policy Institute. CHPA members include the leading manufacturers and distributors of non-prescription, over-the-counter medicines, including pseudoephedrine. The Cunningham study did not receive outside funding.

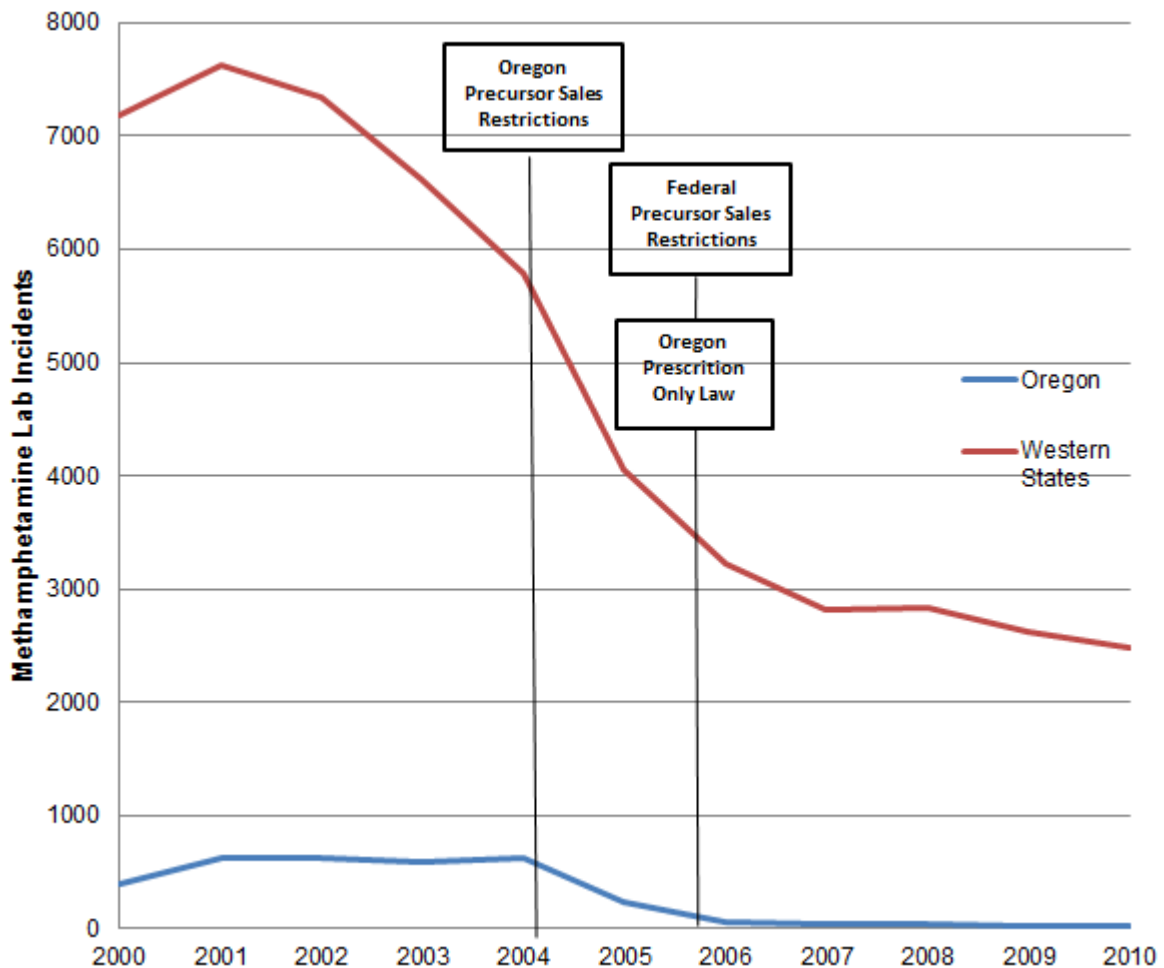
before adoption of the prescription-only law, which limited the law's impact. The two studies suggest that methamphetamine continues to be highly available in Oregon and other Western states due to importation from Mexico and alternate sources of production. According to testimony by the Assistant Chief of the California Bureau of Narcotic Enforcement, Western lab numbers have not risen because sophisticated smurfing rings in other Western states are fueling super labs run by large

drug trafficking organizations in California, which produce the largest amount of methamphetamine in the United States.³⁵

Mississippi

Mississippi has seen a significant decrease in methamphetamine lab incidents since the implementation of a prescription-only law in July 2010. According to the Executive Director of the Mississippi Bureau of Narcotics, there were 546

Exhibit 19: Methamphetamine lab incidents in Oregon relative to precursor control restrictions and compared to Western states



Notes: Western states include Arizona, California, Colorado, Idaho, Nevada, New Mexico, Montana, Oregon, Utah, and Washington.

Sources: El Paso Intelligence Center (EPIC), National Seizure System, 2000 through 2010, as of October 4, 2012.

methamphetamine lab incidents in the first two quarters of 2010 compared to 162 in the first two quarters of 2012, a 70 percent decrease. The number of actual methamphetamine labs discovered decreased from 252 in that period in 2010 to 17 in 2012, a 93 percent drop.³⁶ The number of drug-endangered children removed from methamphetamine labs decreased approximately 80 percent.³⁷ The director stated that enforcement remained constant during that period. He notes that the only policy difference was the change to prescription-only.³⁸

Mississippi's proximity to other states without prescription-only policies may have affected the impact of its prescription-only law. The Mississippi Narcotics Bureau director noted that all pharmacy precursors found at recent methamphetamine lab incidents were purchased in other states. Sales of precursors to Mississippi residents in the surrounding states of Tennessee, Alabama, and Louisiana were more than 200 percent greater in the three months following the prescription-only requirement compared to the three months before.³⁹

The Cunningham, et al., study⁴⁰ found that the significant decrease in methamphetamine lab incidents in Mississippi in 2010 was related to its precursor prescription-only policy. Other neighboring states, including Tennessee, Louisiana, Arkansas, and Alabama, as well as four nearby states (Missouri, Kentucky, Illinois, and Florida) without prescription-only policies, did not see a decline. The high prevalence of methamphetamine labs in Mississippi and nearby states at the time of the policy change compared to the low level in Oregon and Western states at the time of the change appears to be a factor related to the effectiveness of a prescription-only policy on small lab production of methamphetamine. The study concludes that prescription precursor regulation could impact methamphetamine labs in states with a high prevalence of clandestine labs, which includes Tennessee.

Missouri

As of July 2012, 71 Missouri counties and towns, primarily in southeast Missouri, have passed prescription-only ordinances for pseudoephedrine purchases. According to the president of the Missouri Narcotics Officers Association (MNOA), methamphetamine lab incidents decreased an average of 52 percent in 2011 in those areas with such ordinances.⁴¹ Lab incidents in St. Louis County, which does not require prescriptions, increased significantly. MNOA reports that sales of pseudoephedrine in St. Louis County increased 300 percent to 400 percent after neighboring counties instituted prescription-only ordinances. Rigorous statistical studies including Missouri are not yet available.

Limitations of Studies

The studies and data presented above have limitations. The Cunningham, et al., study indicates the EPIC lab incidents data tend to be underreported, but the data follows the general trend of seizures in the states and should not significantly affect the results of their time-series analysis for Oregon and Mississippi. As with any analytical study, it is possible that the impacts seen in Mississippi or Oregon are due to unidentified factors not included in the study design. The studies cited attempted to control for the effect of other factors on the trends seen in lab incidents.

Impact of Lower Precursor Sales Limitations and Other Precursor Control Policies

Sufficient experience and information are not available to evaluate the impact of lower precursor purchase limits or other precursor control policies described above on the number of methamphetamine lab incidents. A few states have recently reduced sales limitations and have often done so in conjunction with other controls, such as electronic tracking. Lower

purchase limits are vulnerable to group and false ID smurfing. The individual impacts of additional controls, such as methamphetamine offender registries and residency restrictions, are difficult to isolate from the impact of broader tracking policies.

Impact of Federal Funding on Methamphetamine Production Enforcement and Cleanup Costs in Tennessee

Tennessee has relied primarily on federal funding to support state and local law enforcement in efforts to eliminate methamphetamine production. Since FFY 2002, Tennessee has received \$37.2 million for both enforcement initiatives and lab cleanups.

Federal funding is ending for the enforcement initiatives, which include statewide enforcement activities coordinated by the Tennessee Methamphetamine and Pharmaceutical Task Force and its staff. Federal lab cleanup funding has fluctuated in recent years and was not available from late February through June 2011. With revised lower-cost waste processing procedures, federal appropriations are expected to cover cleanup and some of the training and equipment costs through September 2013. Without federal or other sources of funds, local law enforcement

becomes responsible for the costs of methamphetamine enforcement and lab cleanup.

In addition to direct federal funding, Tennessee public agencies received \$11.3 million in federal grants for methamphetamine initiatives between 2002 and 2010. These federal grants were funded through the U.S. Department of Justice’s Community Oriented Policing Services (COPS) program. (See Exhibit 20.) The TMPTF has been funded since 2007 by \$6.5 million of the COPS grants to the Tennessee Bureau of Investigation. The TMPTF has coordinated Tennessee’s methamphetamine enforcement initiatives and provided special training, equipment, supplies, intelligence information, and other assistance and expertise to help local governments deal with

Exhibit 20: U.S. Department of Justice, Community Oriented Policing Services (COPS) methamphetamine-related grants, federal fiscal years 2002 through 2012

Federal Fiscal Year	Total (a)	Tennessee	Tennessee Bureau of Investigation (b)
2002	\$37,587,349	\$666,350	
2003	\$32,070,331	\$746,750	
2004	\$30,786,928	\$956,443	
2005	\$27,749,059	\$493,322	
2006	\$36,551,662	\$1,115,823	\$20,000
2007	\$49,607,067	\$1,787,662	\$1,337,686
2008	\$40,159,993	\$1,169,125	\$748,240
2009	\$34,300,000	\$2,400,000	\$2,400,000
2010	\$25,385,000	\$2,000,000	\$2,000,000
2011	\$0	\$0	\$0
2012	\$0	\$0	\$0
Total	\$314,197,389	\$11,335,475	\$6,505,926

Notes:

- (a) Does not include COPS grants to tribal agencies, which no Tennessee agencies received.
- (b) TBI became the grantee agency for the Tennessee Methamphetamine and Pharmaceutical Task Force in 2007.

Source: Information compiled for OREA by the U.S. Department of Justice, Office of Community Oriented Policing Services, Sept. 9, 2012.

methamphetamine investigations and lab toxic waste. (See Appendix D for a more detailed description of the TMPTF.) The last federal COPS awards for methamphetamine-related enforcement projects were in October 2010; the TMPTF has received special exceptions and extensions from the Department of Justice for these grants to carry forward until expended. The director of the TMPTF expects their current COPS grant funds to be depleted by the end of 2013; the task force plans to start winding down its staffing and operations in March 2013.

law enforcement officers to remove the chemicals from smaller (one-pot) labs and temporarily store them in regional safe and secure locations for later pickup by DEA hazardous waste vendors. Average lab cleanup costs using the container program are less than \$500 per site compared to average costs of \$3,000 to \$3,600 for fiscal years 2006 through 2008.⁴³

Federal law mandates that law enforcement agencies that discover methamphetamine labs are responsible for cleaning up the hazardous waste at

The Drug Enforcement Administration (DEA) paid \$25.9 million for Tennessee lab cleanups between 2002 and 2012 with COPS funds designated to clean up methamphetamine lab incidents. (See Exhibit 21.) Prior to February 22, 2011, the DEA paid private hazardous waste contractors for individual lab waste removal and disposal in Tennessee. Congress reduced DEA cleanup appropriations for FFY 2011 to \$8.3 million; \$16.7 million was spent in FFY 2010. To preserve the limited available cleanup funds, on February 22, 2011, the DEA discontinued funding for individual lab cleanups, as used in Tennessee and most other states, in favor of more cost-effective use of Authorized Central Storage Container Programs (ACS).⁴² The ACS program uses trained state and local

Exhibit 21: Drug Enforcement Administration methamphetamine lab cleanup payments for state and local governments, federal fiscal years 2002–2012

	Congressional Appropriations (a)	Total Payments	Tennessee Payments
2002	\$20,000,000	\$21,411,256	\$3,428,649
2003	\$19,800,000	\$15,036,637	\$1,963,478
2004	\$19,800,000	\$17,742,489	\$2,704,852
2005	\$19,700,000	\$16,971,981	\$2,577,496
2006	\$19,700,000	\$15,215,960	\$2,223,240
2007	\$6,700,000 (b)	\$11,898,916	\$1,977,971
2008	\$19,900,000	\$11,034,763	\$1,591,174
2009	\$4,600,000	\$12,894,433	\$3,058,518
2010	\$10,000,000	\$16,706,098	\$4,016,777
2011	\$8,300,000 (c)	\$7,977,760	\$2,250,737
2012	\$12,500,000 (d)	\$4,022,015	\$107,865
Total		\$150,912,308	\$25,900,757

Notes:

- (a) Includes appropriations received by DEA designated for lab cleanups through the Department of Justice's Community Officer Policing Services (COPS) program. Unexpended funds can carry forward to fund approved services in a future year.
- (b) In FFY 2007, the DEA Cleanup program carried an excess balance in COPS funding: \$13.2 million was reprogrammed by the Department of Justice.
- (c) FFY 2011 included cleanup funding for all states from October 1, 2010, to February 22, 2011; cleanup funding resumed for states with an Authorized Central Storage Container Program (ACS) in June 2011. Tennessee implemented an ACS program in July 2011.
- (d) Beginning in FFY 2012, COPS cleanup funding can also be used for training, personal protective equipment, and other ACS program costs. Payments reported here only include cleanup costs.

Source: Information compiled for the Tennessee Comptroller's Office of Research and Education Accountability by the Drug Enforcement Administration, Hazardous Waste Section, Oct. 2012.

the site. When federal funds were curtailed in February 2011, the responsibility fell to Tennessee local governments to absorb cleanup costs. In most instances, local governments had not anticipated or budgeted for the loss of federal cleanup funds. Tennessee law enforcement reported an average of 81 methamphetamine lab incidents per month from March through June 2011, compared to an average of 204 in the four months before the funding cut. (See Exhibit 10 included in preliminary assessment of NPLeX section.) The director of the TMPTF attributes the drop-in labs discovered to the less active pursuit of labs because funding was not available for cleanup.

Reported lab incidents in several other states fell by at least half from 2010 to 2011, including Arkansas, Michigan, Alabama, Florida, Georgia and Alabama. In response to questions from OREA, law enforcement officials in all those states indicated that the loss of federal funding for cleanup in 2011 was a primary reason for the drop in labs reported. Without federal funding for cleanup, law enforcement agencies were less likely to look for methamphetamine labs that their agencies would have to pay to cleanup. Also, reporting of lab incidents to EPIC had been tied to DEA funding. Without the funding, some local agencies did not continue to report all lab incidents.

POLICY CONSIDERATIONS

This section presents several factors for policymakers to consider in evaluating whether to make a precursor control policy change. In general, policy options include continuing the use of enhanced electronic tracking of pharmacy precursor purchases using NPLeX or requiring a prescription for pharmacy precursors. It is important to note that these options focus on preventing or reducing local methamphetamine production, not

The TMPTF worked quickly to establish a regional ACS program when federal cleanup funds were cut in late February 2011. In July 2011, Tennessee became eligible again for DEAACS (container program) funds. Reported methamphetamine lab incidents increased to an average of 164 per month in the four months following the implementation of the container program and resumption of federal cleanup funding. (See Exhibit 10.)

Congress appropriated \$12.5 million through the COPS program to DEA for anti-methamphetamine activities for the fiscal year beginning October 2011. The funds paid for the ACS cleanup disposal costs as well as some of the training and personal protective equipment for state and local law enforcement officers, including Tennessee. DEA worked with additional states to establish container programs to better ensure the availability of cleanup funding through the year.

According to the DEA Chief of the Hazardous Waste Disposal Section, although not approved by Congress as of October 10, 2012, the DEA anticipates continued funding at the \$12.5 million level for FFY 2013. He estimates that if the number and type of labs discovered do not change significantly, this should fund cleanup and some of the training and personal protective equipment for state and local governments using the ACS program through the fiscal year.

methamphetamine use. A decrease in the supply of locally-produced methamphetamine may not result in a reduction in methamphetamine use. Most of the methamphetamine available in the United States is supplied by Mexican transnational criminal organizations (TCOs) and is produced in foreign and domestic super labs.

Issues for policymakers include:

- the extent to which pharmacy precursors are diverted to methamphetamine production;
- the number of legitimate users of pharmacy precursors and the availability of non-precursor alternatives;
- the potential of locking technology;
- consumer cost and access of a prescription requirement; and
- the adequacy of controlled substance tracking systems.

Extent Pharmacy Precursors Diverted to Methamphetamine Production

Estimates of the potential diversion of pharmacy precursors to the production of methamphetamine vary significantly. The pharmaceutical industry estimates that a relatively small percentage (three percent to five percent) is diverted; law enforcement estimates that between 30 percent and 90 percent is diverted.⁴⁴

The Consumer Health Care Products Association (CHPA) estimates that only a small percent (three percent to five percent) of pseudoephedrine is diverted to the illicit production of methamphetamine.⁴⁵ CHPA's estimate, similar to blocked sales in NPLeX in 2011, assumes that individuals attempting to purchase over the limit would have used the bulk of their purchase legitimately and diverted only the amount over the limit to methamphetamine production. An assumption that these individuals are diverting more of their purchases to methamphetamine production would produce a higher estimate. CHPA's estimate does not include purchases through group or false identification smurfing. Including those types of purchases would produce a higher estimate.

The National Methamphetamine and Pharmaceutical Initiative Advisory Board (NMPI), which includes representatives from federal, state,

and local law enforcement and prosecutorial agencies, attribute retail sales of cold and allergy medicines containing pseudoephedrine as the primary source of precursors for domestic methamphetamine production. Based on investigations, intelligence, and evidence found by law enforcement officers at methamphetamine lab sites, NMPI "believes that sufficient evidence now exists to support the conclusion that smurfing is at epidemic proportions across the country." NMPI also notes that smurfers are increasingly using fraudulent and multiple identifications.

Tennessee has developed a system to estimate the pharmacy precursor sales suspected for diversion to the production of methamphetamine. Through the Tennessee Methamphetamine Intelligence System (TMIS), pharmacy precursor purchases are identified as suspicious if the purchaser:

- has purchased over the legal limits in the past, or
- law enforcement officers have entered information into TMIS linking individuals to methamphetamine-related activities, such as a methamphetamine-related arrest, presence at a methamphetamine lab site, caught in a traffic stop for methamphetamine, or part of a law enforcement methamphetamine-related investigation.

Exhibit 22 shows the percentage of pharmacy precursor sales identified in TMIS as suspicious from 2008 through September 2012. This estimate increased from 37 percent in 2008 to 48 percent in 2010. NPLeX was implemented in Tennessee in January 2012. In the first nine months of its operation TMIS flagged 33 percent of sales as suspicious. The TMPTF director attributes the decrease in suspicious sales in 2012 in part to the use of false identifications to make multiple purchases within the legal limits. Another effect of the NPLeX stop-sale process noted by the TMPTF

director is that individuals who attempt to purchase over the limit may not be added to the suspect list. This may affect law enforcement’s ability to build a case against an individual purchasing precursors for diversion to the production of methamphetamine.

The TMPTF estimated an additional 28 percent of sales in 2010 above those identified as suspicious were indicative of smurfing activity based on law enforcement’s experience in the field, seasonal fluctuation in pseudoephedrine sales, and the number of labs discovered.

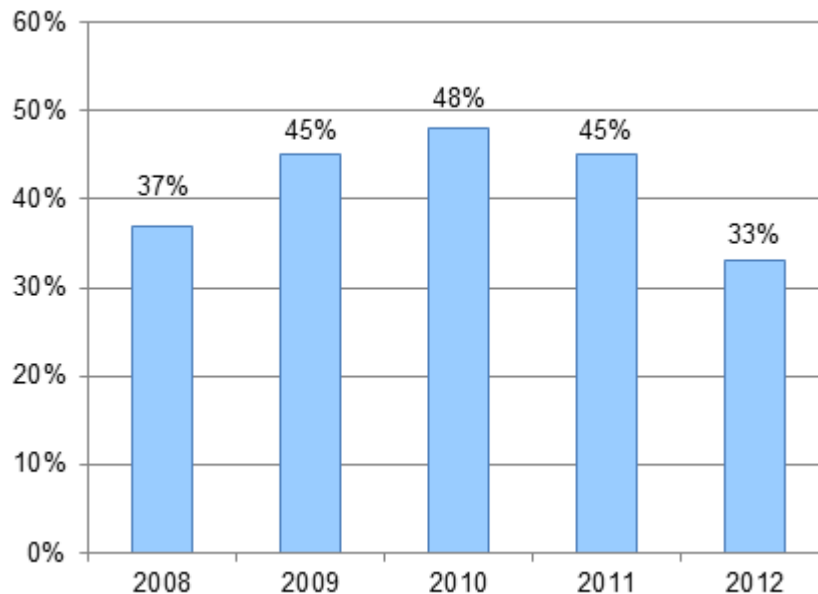
A 2011 analysis by the Tennessee Department of Mental Health found that areas⁴⁶ within Tennessee with higher sales of pseudoephedrine per person also had higher methamphetamine lab seizures per person for 2008 through 2010.⁴⁷ (See Exhibit 23.) There was a stronger correlation between the amount of suspicious sales of pseudoephedrine, as

identified by the TMPTF, and the number of methamphetamine labs seized. There was not a significant relationship between the numbers of non-suspicious sales and methamphetamine labs found in an area.

A similar analysis for Kentucky found that, in 2010, counties with higher pseudoephedrine sales also had higher numbers of methamphetamine laboratories.⁴⁸

CHPA asserts that pseudoephedrine sales in states with a known methamphetamine lab problem correlate with population rather than with methamphetamine lab seizures. For example, CHPA indicated that Tennessee represented 2.8 percent of the nation’s pseudoephedrine sales, has 2.03 percent of the population, and had 10 percent of the methamphetamine lab incidents. In contrast, Texas had 10.8 percent of sales, 8.04 percent of the

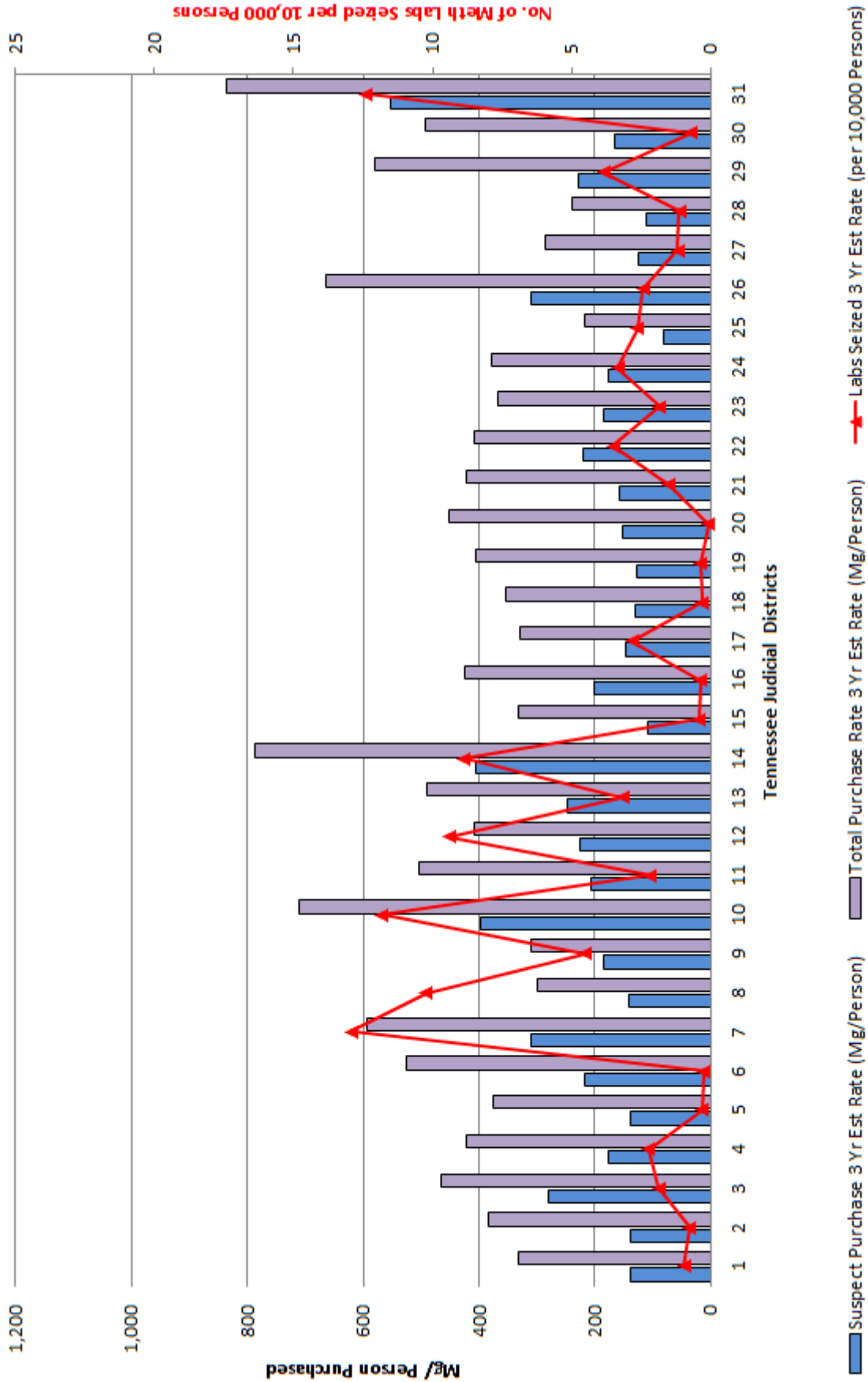
Exhibit 22: Suspicious purchases of pharmacy precursors (in grams), Tennessee, 2008 through September 2012



Notes: Estimate for 2012 is January through September. All purchases of pharmacy precursors were not recorded in TMIS for 2008 through 2011. The TMPTF estimates that 86 percent of pharmacy sales were included in 2011.

Source: Tennessee Methamphetamine and Pharmaceutical Task Force, Tennessee Methamphetamine Intelligence System.

Exhibit 23: Comparison of pseudoephedrine purchase rates in Tennessee, 2008–2010, by judicial district for total and suspect sales and methamphetamine lab seizure rates



Source: 2011 Analysis by Tennessee Department of Mental Health from data collected by the Tennessee Methamphetamine and Pharmaceutical Task Force (purchase and seizures) and UT Center for Business and Economic Research (population).

population, but less than one percent of the meth lab incidents. CHPA did not provide data to OREA for all states. Data for Tennessee was reported in “boxes” sold, which can vary from 600 milligrams to 3.6 grams per box. As noted, regional factors appear to influence the extent of methamphetamine production.

Legitimate Users of Pharmacy Precursors

Approximately 10 percent of adult Tennesseans purchased pseudoephedrine in the first six months that NPLEx recorded sales. From January through June 2012, NPLEx recorded purchases by 481,023 individuals in Tennessee. Tennessee’s adult population (age 18 and over) in 2011 was 4.9 million. Information was not readily available on out-of-state residents purchasing pseudoephedrine in Tennessee.⁴⁹

Potential of Locking Technology

In early 2012, two pharmaceutical companies announced new technology to produce pseudoephedrine that could potentially prevent small lab production of methamphetamine. These companies claim that their reformulated pseudoephedrine remains effective for its intended use while preventing conversion into methamphetamine. One company, Highland Pharmaceuticals, LLC, has developed the Tarex™ format, “an innovative extraction-resistant technology, which can produce active pharmaceutical ingredients in a delivery format that maintains full efficacy while deterring abuse or misuse of the medication.”⁵⁰ They are applying this technology to produce a pseudoephedrine-based decongestant. The DEA has performed limited testing of the Tarex-protected decongestant, and a DEA spokesperson reportedly called results “promising,” but testing is not complete.⁵¹ Highland staff and Franklin County, Missouri, law enforcement personnel reported that their attempts to produce methamphetamine with the Tarex-

protected pseudoephedrine produced only black liquid – instead of clear crystals.⁵²

Highland has asked the DEA to exempt its form of pseudoephedrine from the provisions of the Combat Meth Act of 2006, which requires pseudoephedrine to be sold from behind the counter. As of November 19, 2012, Highland’s DEA exemption request is still under consideration. In December 2012, Westport Pharmaceuticals began marketing Zephrex-D™ protected with Highland’s Tarex™ technology in the St. Louis area, but it will be sold with the CMEA requirements.

Another company, Acura Pharmaceuticals, has produced a form of pseudoephedrine, Nexafed, a 30 milligram tablet with “IMPEDE Technology.”⁵³ The company has announced that “independent laboratory tests demonstrated that Nexafed . . . disrupted the conversion of the pseudoephedrine. . . into methamphetamine.”⁵⁴

The Director of Tennessee Methamphetamine and Pharmaceutical Task Force is “cautiously optimistic” that further testing of the locking technology will prove it to be an effective alternative. He expressed concern about discarding current controls because of the possibility that offenders would find a way around the technology.

The prescription-only policy considerations of consumer cost and access and the adequacy of controlled substance tracking systems are discussed below in the Policy Options section.

POLICY OPTIONS

This section of the report summarizes the advantages and disadvantages of the two primary precursor control policy options, as well as variations of policies used in some other states. Primary options include maintaining enhanced electronic tracking of precursor sales or requiring a prescription for precursors. The supplemental options could be done in conjunction with one of the primary options.

Assessment factors include:

- potential effectiveness in preventing or substantially reducing methamphetamine production;
- access of legitimate consumers to pharmacy precursors;
- potential costs to legitimate consumers of pharmacy precursors;
- effectiveness as an intelligence tool for law enforcement to discover methamphetamine labs;
- ability of individuals to circumvent the controls;
- potential government funding required; and
- public health and safety.

Primary Policy Options

Option 1: Maintain Enhanced Electronic Tracking of Precursor Sales

Methamphetamine lab incidents have not declined significantly in those states where precursor purchase tracking systems have been in place for significant periods of time, including Tennessee (TMIS), Oklahoma, Arkansas, and Kentucky. The enhanced electronic tracking system NPLeX has blocked a small percentage of pharmacy precursor sales since implementation in Kentucky in 2008 and Tennessee in January 2012. Rigorous studies

to gauge the effectiveness of electronic tracking and to isolate it as a factor in preventing methamphetamine lab incidents have not been conducted.

Advantages: Maintaining the current real-time, stop-sale system (NPLeX) does not further restrict access or costs to legitimate pseudoephedrine users. The system is provided at no cost to the state or pharmacies. The system is designed to block sales to individuals attempting to buy quantities exceeding the current limits and for certain convicted methamphetamine offenders. The data collected provides law enforcement with potential intelligence information that can be used in the investigation and prosecution of methamphetamine production offenses.

Disadvantages: Offenders can circumvent the system by recruiting and paying larger groups of individuals to purchase precursors within the sales limit or to purchase precursors with false identification. Government funding will continue to be needed for cleanup of methamphetamine lab sites, for law enforcement officers, training, and equipment to investigate and prosecute methamphetamine labs, and for the care of children discovered at methamphetamine lab sites who must be taken into state custody. Public health and safety costs and dangers related to the toxicity and explosiveness of methamphetamine labs remain.

Option 2: Require a Prescription for Precursors

Three areas that have implemented prescription-only policies have seen a decrease in methamphetamine lab incidents; some studies question the extent to which other factors may have affected the decline. The recent experience in Mississippi and local areas of Missouri, both high methamphetamine production states in 2009 like Tennessee, have

seen a marked reduction in methamphetamine lab incidents, which law enforcement attributes to the change to a prescription-only policy. Oregon has maintained a low level of methamphetamine lab incidents since the change to a prescription-only policy in 2006. Other factors, such as the imported methamphetamine market, may have influenced the level of domestic production.

Advantages: If Tennessee has results similar to Mississippi with a prescription-only policy, direct public expenditures related to methamphetamine production, including cleanup costs, equipment, training, and child custody costs, should decrease. Public health and safety issues should also decrease.

Disadvantages: Access of legitimate consumers to pseudoephedrine would decrease. Legitimate pseudoephedrine users would have to obtain a prescription to continue to use the drug or would have to choose another product, which may prove less effective in relieving sinus inflammation or congestion. There may be additional costs to legitimate users and health insurers if an additional doctor's visit is needed to obtain a prescription or if consumers do not change to other over-the-counter medications. (See further discussion below.) Intelligence information available to law enforcement to monitor and control precursor purchases will decline; however, such information may not be needed if health care providers can limit prescriptions to consumers with apparent allergy, cold, or flu symptoms. (See further discussion below.) Tennessee residents could circumvent a prescription-only policy by traveling to one of several bordering states without such a restriction.

Prescription-Only Policy Considerations

Potential Cost to Legitimate Consumers
Assumptions that drive cost estimates of a prescription-only policy include whether consumers

will switch to other over-the-counter medicines, whether an additional doctor visit is needed to obtain a prescription for pseudoephedrine, and the need for medical oversight for long-term use of pseudoephedrine.

Potential costs outlined by the Consumer Healthcare Products Association include:

- the cost of a doctor visit to get a prescription for pseudoephedrine;
- the time and travel expense to visit a doctor;
- lost time from work and school to visit a doctor;
- higher costs for prescription drugs compared to over-the-counter medications;
- increased workload on doctors and less time for patients with more critical needs; and
- loss of Tennessee sales tax revenue because over-the-counter medications are taxed and prescription drugs are not.

CHPA estimates assume that individuals will continue to use pseudoephedrine rather than alternative products and will require an additional visit to a doctor to obtain a prescription. These costs would be borne by health care consumers, state and federal governments, and employers that cover or insure health care and prescription costs. Such costs could be especially burdensome for uninsured individuals.

Officials in Oregon and Mississippi indicate that legitimate consumer access to and increased costs for pseudoephedrine have not been significant concerns since their change to a prescription-only policy.

Oregon: In testimony before the U.S. Senate, Oregon Attorney General John Kroger indicated that Oregon's prescription-only policy for

methamphetamine pharmacy precursors has not prevented Oregonians from receiving adequate medical care or necessary medicines. Oregon citizens have not complained publicly about lack of access to needed cold and allergy medication.⁵⁵ According to Senator Ron Wyden of Oregon in 2010:

Doctors in Oregon have not been overrun by patients seeking PSE [pseudoephedrine]. Many patients buy other over the counter medications. Those who wish to get PSE can call their doctor and get a prescription without making an appointment or paying a co-pay. The price of PSE is not more expensive in Oregon. In fact, many patients pay less now because of the availability of generic brands of PSE.⁵⁶

The Oregon Department of Human Services estimated the prescription-only requirement had a small impact on their Medicaid program: an annual increase of \$7,780.⁵⁷

In their testimony, Senator Wyden and Attorney General Kroger focused on the positive impact of the decrease and sustained low levels of methamphetamine labs, as well as a drop in high property crime rates and costs associated with public safety, emergency room visits, and social services after the change to a prescription-only policy. In addition, the Oregon Narcotics Enforcement Association has stated that smurfing has not been an issue in Oregon.⁵⁸

Mississippi: According to the Executive Director of the Mississippi Bureau of Narcotics, Mississippi doctors and other prescribers in the medical community reported that patients were not denied access to cold and allergy medications and there was no change in costs to Medicaid.⁵⁹

Potential Access Concerns to Legitimate Consumers

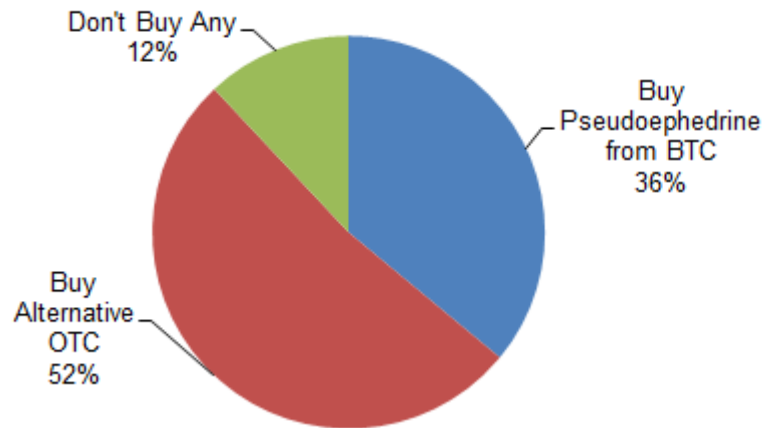
Approximately 71 percent of allergy, asthma, and cold sufferers surveyed in 2010 that bought non-prescription drugs indicated they were opposed to prescription requirements for pseudoephedrine.⁶⁰ Other survey responses indicate that a prescription-only policy may not have a significant cost or negative impact on the majority of allergy, asthma, and cold sufferers. Thirty-six percent surveyed indicated that they buy pseudoephedrine from behind the counter; 52 percent surveyed buy an alternative over-the-counter medication.

Approximately 75 percent of those sampled either fill a prescription frequently or occasionally, indicating they are under a doctor's care and could get a prescription for pseudoephedrine if needed, especially for chronic use, without an additional doctor visit. Approximately 39 percent of those buying the alternatives indicated that they thought the alternatives appear to work as well as pseudoephedrine; 43 percent were not sure; and 18 percent indicated that the alternatives did not work as well as available over-the-counter decongestants. (See Exhibit 24.)

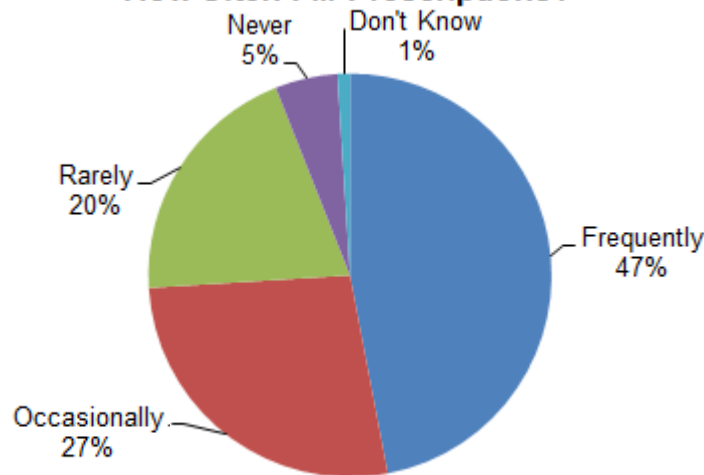
The federal Food and Drug Administration (FDA) does not support the long-term use of pseudoephedrine without doctor approval. The FDA Drug Facts label for pseudoephedrine products warns individuals to discontinue use and seek a doctor's advice if symptoms persist longer than seven days. FDA warnings also direct individuals with heart disease, high blood pressure, diabetes, and some other conditions to get a doctor's advice before using. In Tennessee, approximately 34 percent of adults were diagnosed with high blood pressure in 2007,⁶¹ 11.3 percent with diabetes (2010),⁶² and 5.8 percent with heart disease (2008).⁶³

Exhibit 24: 2010 national survey of allergy, asthma, and cold sufferers

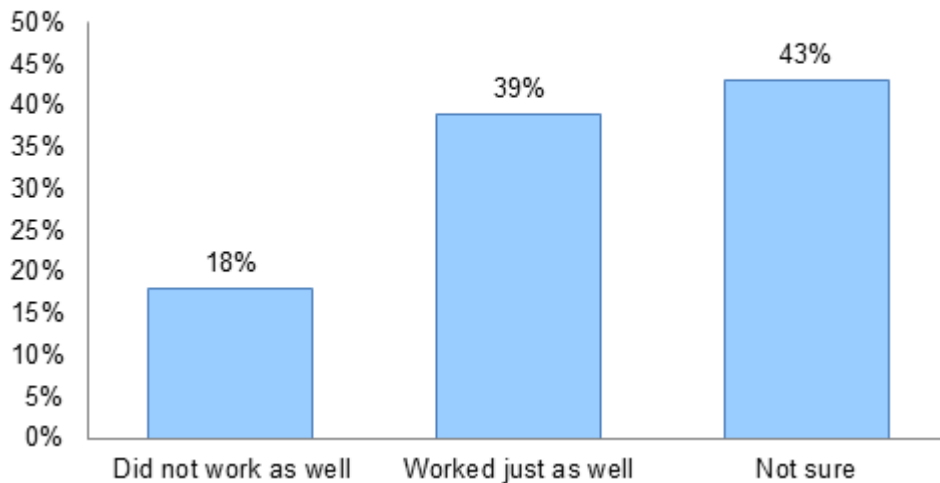
Buy Pseudoephedrine or Alternative?



How Often Fill Prescriptions?



Effectiveness of OTC Alternatives?



Notes: OTC= Over the Counter; BTC = Behind the Counter

Source: Asthma and Allergy Foundation of America, 2010 survey by Harris Interactive.

Adequacy of Controlled Substance Tracking Systems

If the pharmacy precursors to methamphetamine are made a Schedule II to IV controlled substance, individuals would need a prescription from a licensed health care practitioner to purchase the drugs and pharmacists would enter the sales in Tennessee's Controlled Substance Monitoring Database (CSMD). The CSMD provides prescribers and law enforcement, in certain circumstances, a history of an individual's controlled substance purchases. The CSMD, in part because it monitors all prescription drug sales, would not be as readily accessible or as current as NPLEx for pseudoephedrine sales.

A significant concern with the change from electronic tracking of precursor sales to the CSMD is its ineffectiveness in recent years in preventing individuals from obtaining and filling multiple prescriptions for controlled substances, primarily pain medications, from different prescribers. "Doctor shopping" for pain medication prescriptions may be possible in part because the symptoms of pain are not readily apparent, whereas sinus inflammation and nasal congestion are more readily identifiable as symptoms. Oregon and Mississippi officials indicate that "doctor shopping" has not occurred in their states since requiring a prescription for the precursors.

Tennessee Public Chapter 880 of 2012 (PC 880), effective in January 2013, requires health care providers to submit information to the CSMD for controlled substances dispensed to individuals. Health care providers can then check controlled substance prescription histories before prescribing a controlled substance. PC 880 requires prescribers to check the CSMD for some controlled substances; methamphetamine pharmacy precursors could be added to the required list. The intent of the law is to limit multiple prescriptions from different providers. A prescription-only policy

would give doctors control of access to pseudoephedrine; under current law pharmacists control that access.

Another concern with the CSMD is the less timely availability of prescription histories to prescribers, pharmacists, and law enforcement under the CSMD compared to NPLEx. NPLEx is designed to record precursor purchases in real time, to provide pharmacists with immediate information on whether a sale would be over the allowable limits, and to provide law enforcement immediate access to the sales records. Beginning in 2013, PC 880 requires pharmacists to upload information to the CSMD every seven days; uploads are currently required every 30 days. PC 880 broadens law enforcement officers' access to the database if they are actively working on an investigation related to controlled substances; under current law, a warrant is required under most circumstances. NPLEx allows real-time access to law enforcement, and includes purchase history from other NPLEx states. The CSMD only includes purchases in Tennessee.

Supplemental Policy Options

Option 3: Lower Purchase Limits for Pseudoephedrine

Current purchase limits of nine grams per 30-day period exceeds the maximum recommended dosage of pseudoephedrine if taken daily for 30 days. Several states have reduced the 30-day precursor limit; new limits range from six grams to 7.5 grams. Lower limits preserve legitimate consumers' access for use for cold or allergy symptoms. Individuals with more persistent needs or chronic health conditions are more likely to be under a doctor's care and able to obtain a prescription as warranted. No studies were found evaluating the impact of lower limits on the reduction or prevention of methamphetamine labs.

Lower limits may deter or reduce production by some methamphetamine producers.

Methamphetamine producers would need additional individuals to purchase pseudoephedrine for them, which could increase costs and availability of the amount of pseudoephedrine diverted to illicit use.

Option 4: Local Prescription Only Ordinances

Missouri law enforcement officials indicate that methamphetamine production and smurfing have declined significantly in the several Missouri local governments that have implemented prescription-only policies. Officials also note that precursor purchases have shifted to other nearby areas without a prescription-only requirement. Evaluative studies are not available.

Local ordinances to require a prescription for the pharmacy precursors to methamphetamine would allow local governments to further restrict sales of the precursors in their jurisdiction. It is not clear whether state authorization is required for Tennessee local governments to enact such ordinances.

Option 5: Residency Requirements to Purchase Pharmacy Precursors

Studies are not available to substantiate the benefits of residency purchase requirements. Some states, as well as individual pharmacies, have restricted the sale of pharmacy precursors based on the purchaser's residence. Arkansas requires a prescription for non-resident purchasers of pharmacy precursors. Alabama requires a prescription for purchasers from states with prescription-only requirements, such as neighboring Mississippi. Reducing purchases by smurfs from other states appears to be the primary advantage of such residency requirements. Such policies would affect Tennessee's methamphetamine production

only if out-of-state purchasers were also producing methamphetamine in Tennessee.

Some Tennessee pharmacies have restricted sales of pharmacy precursors to residents of the county of their location. Several pharmacists indicated to OREA that such restriction reduced the sales of pharmacy precursors to individuals they suspected were diverting them to methamphetamine production.

Option 6: Funding for Methamphetamine Enforcement and Cleanup

Tennessee has relied primarily on federal funding to support state and local law enforcement in efforts to eliminate methamphetamine production. Federal funding is ending for the enforcement initiatives, which include statewide enforcement activities coordinated by the Tennessee Methamphetamine and Pharmaceutical Task Force and its staff. Federal lab cleanup funding has fluctuated in recent years and was not available from late February through June 2011. With revised lower-cost waste processing procedures, federal appropriations are expected to cover cleanup and some of the training and equipment costs through September 2013. Without federal or other sources of funds, local law enforcement becomes responsible for the costs of methamphetamine enforcement and lab cleanup.

Statutory Changes Needed to Implement a Pharmacy Precursor Prescription-Only Policy

A prescription-only policy for pharmacy precursors to methamphetamine will require a statutory change to schedule those drugs as a controlled substance or to authorize a change to the current rule-making policy. In most cases, the federal Drug Enforcement Administration determines whether a drug should be a controlled substance and Tennessee accepts their findings and schedules the drug through the state's rule-making process. States also have authority to add other drugs to their controlled substance schedules. A controlled substance is a drug determined to have a potential for abuse, or deemed to have no medical use, or deemed to require additional control to access. Controlled substances are divided into different schedules (five in the federal system and seven in Tennessee) based on the medical need and potential for abuse. There are different restrictions for the different schedules related to the prescription controls and criminal penalties. (See Appendix G for a list of schedules and prescription requirements in Tennessee.)

In Tennessee, a drug can be added as a controlled substance through statute or rule. The General Assembly can amend the controlled substance statutes directly to add a drug to a particular schedule. *Tennessee Code Annotated* 39-17-403 also authorizes the Commissioner of Mental Health, in agreement with the Commissioner of Health, to schedule a drug by rule if they determine it is dangerous based on a study of various factors, including the potential for abuse, risk to public health, potential for dependence, and whether the substance is an immediate precursor of another controlled substance. *Tennessee Code Annotated* 38-17-403(f) does not allow the commissioner to schedule a drug that the federal Food and Drug Administration has ruled can be sold over the counter without a prescription, which includes pseudoephedrine and ephedrine. To make these drugs controlled substances by rule would require a statutory change to *Tennessee Code Annotated* 38-17-403(f) to allow scheduling through the current rule-making authority in *Tennessee Code Annotated* 39-17-403.

Pharmacy precursors would need to be scheduled as a Schedule II, III, or IV drug to require a doctor's prescription. Appendix G shows the definition of the different schedules and the prescription requirements. Oregon and Mississippi scheduled the pharmacy precursors as Schedule III.

Another option would be to schedule the precursors as Schedule V, which authorizes a pharmacist to dispense the product after an evaluation of a patient's condition. *Tennessee Code Annotated* 39-17-431(c)(3) and (4) currently requires patient education and counseling by the pharmacist to determine whether it is appropriate to dispense the pharmacy precursors to an individual.

Officials in the Department of Mental Health indicated that under current statutes, it does not appear possible to make the precursors a legend drug, which requires a prescription, without making them a controlled substance. The Food and Drug Administration classifies legend drugs. *Tennessee Code Annotated* 53-10-101(a) defines "legend drugs" as any item that federal law prohibits dispensing without a prescription from certain licensed health care providers.

ENDNOTES

- ¹ 107th Tennessee General Assembly, Public Acts, 2011, [Chapter No. 292](#), An act to amend Tennessee Code Annotated, Title 39 and Title 40, relative to criminal offenses and sentencing, <http://www.tn.gov/> (accessed Oct. 25, 2012).
- ² According to February 2012 Task Force meeting minutes, the Tennessee Methamphetamine Task Force merged with the Tennessee Drug Diversion Task Force to become the Tennessee Methamphetamine and Pharmaceutical Task Force.
- ³ Use of the term “transnational criminal organizations” by the National Drug Intelligence Center (NDIC) is in reference to those TCOs that engage in drug trafficking activity. The NDIC acknowledges that some members of the intelligence community continue to use the term “drug trafficking organizations.” See U.S. Department of Justice, National Drug Intelligence Center, “National Drug Threat Assessment 2011,” Aug. 2011, p. 1.
- ⁴ Information compiled for the Tennessee Comptroller’s Office of Research and Education Accountability by the Drug Enforcement Administration, Hazardous Waste Section, Oct. 2012.
- ⁵ Carla Aaron, Executive Director for Child Safety, Tennessee Department of Children’s Services, e-mail, June 6, 2012.
- ⁶ Tennessee Methamphetamine Task Force, “High Cost of Meth,” Feb. 2011, p. 16.
- ⁷ Tennessee Methamphetamine Task Force, “Proposal to Eliminate Meth Labs in Tennessee by Returning Pseudoephedrine to Prescription-Only Status,” Jan. 3, 2011, p.5.
- ⁸ *Tennessee Code Annotated* 39-17-417(c)(2)(B) and (C) allows courts to require a convicted methamphetamine offender to make restitution to the government and private property owner for the damage and clean-up costs resulting from methamphetamine production.
- ⁹ Middle Tennessee State University, Business and Economic Research Center, [Tennessee 2010 Census Report](#), <http://frank.mtsu.edu/> (accessed Nov. 15, 2012).
- ¹⁰ Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, U.S. Department of Health and Human Services, and RTI International (a trade name of Research Triangle Institute), [Results from the 2010 National Survey on Drug Use and Health: Summary of National Findings](#), NSDUH Series H-41, HHS Publication No. (SMA) 11-4658, 2011, <http://www.samhsa.gov/> (accessed Oct. 26, 2012), pp. 5-6.
- ¹¹ L.D. Johnston, P.M. O’Malley, J.G. Bachman, and J.E. Schulenberg, [Monitoring the Future: National Survey Results on Drug Use, 1975–2010: Volume II, College Students and Adults Ages 19–50](#), Ann Arbor: Institute for Social Research, The University of Michigan, 2010, pp. 43, 51, www.monitoringthefuture.org/ (accessed Oct. 26, 2012).
- ¹² Tennessee Department of Education, [2011 Youth Risk Behavior Survey, Trend Report](#), p.7, <http://www.tn.gov/> (accessed Oct. 26, 2012).
- ¹³ Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, [Treatment Episode Data Set \(TEDS\) Based on administrative data reported by States to TEDS through Jan. 5, 2012](#), <http://www.dasis.samhsa.gov/> (accessed Oct. 26, 2012).

- ¹⁴ Governor Phil Bredesen, Executive Order No. 18, “An Order Establishing the Governor’s Task Force on Methamphetamine Abuse,” April 7, 2004, <http://www.tn.gov/> (accessed July 12, 2011).
- ¹⁵ Immediate methamphetamine precursors included ephedrine, pseudoephedrine, or phenylpropanolamine or their salts, isomers, or salts of isomers. [*Tennessee Code Annotated*, § 39-17-402(13).] In 2000, the FDA issued a public health advisory against the use of phenylpropanolamine in any drug products and, in 2006, removed it from over-the-counter sale (70 Federal Register 75988 December 2005). The drug is still available by prescription for veterinary use. This drug is not currently a primary precursor used in current methamphetamine production methods. The Tennessee Board of Pharmacy in consultation with the Tennessee Bureau of Investigation is authorized to exclude products that are not in a form used to produce methamphetamine. [*Tennessee Code Annotated*, § 39-17-431(b)(2).] Excluded products include pseudoephedrine products in liquid and gel form.
- ¹⁶ *Tennessee Code Annotated*, Title 39, Chapter 17, Part 4.
- ¹⁷ *Tennessee Code Annotated* 39-17-431(d).
- ¹⁸ NPLeX is funded by the Consumer Healthcare Products Association (CHPA), an association of over-the-counter pharmaceutical companies.
- ¹⁹ Arkansas uses the LeadsOnlabs MethMonitor system.
- ²⁰ A pharmacist can override the blocked sale if (s)he feels in danger.
- ²¹ Dr. Patricia R. Freeman and Dr. Jeffery Talbert, *Impact of State Laws Regulating Pseudoephedrine on Methamphetamine Trafficking and Abuse*, The White Paper of the National Association of State Controlled Substance Authorities, April 2012, p. 11, <http://www.nascsa.org/> (accessed June 4, 2012).
- ²² Department of Justice, National Drug Intelligence Center, *National Drug Threat Assessment 2007*, Oct. 2006, p. 6, <http://www.justice.gov/> (accessed Nov. 2, 2012).
- ²³ Department of Justice, *National Drug Threat Assessment 2010*, pp. 32–35, <http://www.justice.gov/> (accessed Nov. 2, 2012).
- ²⁴ Department of Justice, *National Drug Threat Assessment 2011*, p. 35, <http://www.justice.gov/> (accessed Nov. 2, 2012).
- ²⁵ National Methamphetamine and Pharmaceuticals Initiative Advisory Board, “Advisory Board Position Paper,” March 28, 2011, p.3, <http://www.oregondec.org/> (accessed March 6, 2012).
- ²⁶ 104th Tennessee General Assembly, Public Acts, 2005, Chapter 18, An act to amend Tennessee Code Annotated, Titles 39 and 68, relative to methamphetamine, <http://www.tn.gov/> (accessed Nov. 7, 2012). Section 2(d) authorizes pharmacies to maintain written records instead of electronic records, which precludes real-time information and stop-sale notification.
- ²⁷ Consumer Healthcare Products Association, *Preserve Consumer Access to Pseudoephedrine in Missouri*, <http://www.chpa-info.org/> (accessed Nov. 7, 2012).
- ²⁸ National Alliance for Model State Drug Laws, “Controlling Methamphetamine Precursors Ephedrine and Pseudoephedrine: A Brief History of Controls and Current Initiatives,” Nov. 2011, pp. 9–10, <http://www.namsdl.org/> (accessed Nov. 6, 2012).

- ²⁹ EPIC numbers are not readily available by month over time and for 2012 in particular; data on incidents reported through TMIS to the Tennessee Methamphetamine and Pharmaceutical Task Force is used for this analysis.
- ³⁰ Data provided to OREA by the Tennessee Methamphetamine and Pharmaceutical Task Force from the Tennessee Methamphetamine Intelligence System, Aug. 2012. Data for 2011 was provided by pharmacies to TMIS; data for 2012 was transmitted to TMIS from NPLeX.
- ³¹ Tennessee Methamphetamine Intelligence System based on data provided from the National Precursor Log Exchange by Appriss Inc.
- ³² Roland Myers, President and CEO, Tennessee Retail Association, e-mail, Sept. 10, 2012.
- ³³ Christopher Stomberg and Arun Sharma, *Making Cold Medicine Rx Only Did Not Reduce Meth Use: Analyzing the Impact of Oregon's Prescription-Only Requirement*, Cascade Policy Institute, Feb. 2012, <http://cascadepolicy.org/> (accessed April 30, 2012).
- ³⁴ J.K. Cunningham, Russell C. Callaghan, Daoqin Tong, Lon-Mu Liu, Hsaio-Yun Lin, and William J. Lattyak, "Changing over-the-counter ephedrine and pseudoephedrine products to prescription-only: Impacts on Methamphetamine Clandestine laboratory seizures," *Drug Alcohol Dependence*, 2012, <http://dx.doi.org/> (accessed May 23, 2012).
- ³⁵ Kent Shaw, Assistant Chief, California Bureau of Narcotic Enforcement, *Testimony to Nevada Senate Committee on Health and Human Services*, March 14, 2011, <http://www.oregondec.org/> (accessed July 26, 2012).
- ³⁶ EPIC reports all methamphetamine lab incidents including lab seizures, dumpsites, and discovery of methamphetamine-related chemicals or equipment. These figures include lab seizures only.
- ³⁷ Marshall Fisher, Executive Director, Mississippi Bureau of Narcotics, *Statement before U.S. House of Representatives, Committee on Oversight and Government Reform, Subcommittee on Healthcare*, District of Columbia, Census, and National Archives, July 24, 2012, pp. 4–5, <http://oversight.house.gov/> (accessed July 25, 2012). Methamphetamine statistics reported are from the
- Mississippi Bureau of Narcotics, not EPIC. Maps of incidents by county also provided to OREA by the Mississippi Bureau of Narcotics.
- ³⁸ Marshall Fisher, Executive Director, Mississippi Bureau of Narcotics, Presentation to the Tennessee Methamphetamine and Pharmaceutical Task Force, Aug. 24, 2012.
- ³⁹ Christopher Hall, Sarah Harp, Colleen Kennedy, and Greg Hager, "Controlling Access to Methamphetamine Precursors in Kentucky – Draft for Committee Meeting," Kentucky Legislative Research Commission, Program Review and Investigations Committee, Jan. 13, 2011, pp. 37-38.
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- ⁴¹ Jason Grellner, Franklin County Missouri Narcotic Enforcement Unit, *Testimony to the U.S. House of Representatives, House Committee on Oversight and Government Reform*,

- Subcommittee on Healthcare, District of Columbia, Census and the National Archives, July 25, 2010, pp. 1,12, <http://oversight.house.gov/> (accessed July 25, 2012). Numbers reported are from the Missouri Bureau of Narcotics, not EPIC.
- ⁴² Steve Wasseem, Section Chief, Hazardous Waste Disposal Section, Office of Forensic Sciences, Drug Enforcement Administration, telephone interview, Oct.10, 2012.
- ⁴³ U.S. Department of Justice, Office of Inspector General, “The Drug Enforcement Administration’s Clandestine Drug Laboratory Cleanup Program,” Audit Report 10-29, June 2010, pp. v, xii.
- ⁴⁴ Kent Shaw, Assistant Chief, California Bureau of Narcotic Enforcement, [Testimony to Nevada Senate Committee on Health and Human Services](#), March 14, 2011, p.3, <http://www.oregondec.org/> (accessed July 26, 2012). Jason Grellner, Franklin County Missouri Narcotic Enforcement Unit, [Testimony to the U.S. House of Representatives, House Committee on Oversight and Government Reform, Subcommittee on Healthcare](#), District of Columbia, Census and the National Archives, July 25, 2010, Video (see footage at 1:32:58), <http://oversight.house.gov/> (accessed July 26, 2012). Tennessee Methamphetamine and Pharmaceutical Task Force, Tennessee Methamphetamine Intelligence System ,see Exhibit 22.
- ⁴⁵ Carlos Gutierrez, Consumer Healthcare Products Association, Director State Government Relations, interview, Sept. 20, 2011.
- ⁴⁶ The analysis was based on the 31 Judicial Districts in Tennessee. Tennessee combines its 95 counties into 31 Judicial Districts.
- ⁴⁷ Anthony Jackson, Tennessee Department of Mental Health, “Indicators of Methamphetamine Abuse in Tennessee,” July 2011, pp. 5, 14.
- ⁴⁸ Jeffery Talbert, Karen Blumstein, Amy Burke, Arnold Stromberg, and Patricia Freeman, “Pseudoephedrine Sales and Seizures of Clandestine Methamphetamine Laboratories in Kentucky,” Research Letter, *Journal of the American Medical Association*, Volume 308, No. 15, October 17, 2012.
- ⁴⁹ OREA analysis of data provided by Appriss, Inc., from NPLeX on individuals purchasing pseudoephedrine products in Tennessee from January through June 2012. Population figures from 2010 U.S. Census.
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- ⁵⁸ Oregon Narcotic Enforcement Association, "Meth Epidemic Solution: Meth and Meth Lab Eradication through Effective Control of Pseudoephedrine," Presented to the United States Senate Anti-Meth Caucus, April 28, 2011.
- ⁵⁹ Marshall Fisher, Executive Director, Mississippi Bureau of Narcotics, [Statement before U.S. House of Representatives, Committee on Oversight and Government Reform, Subcommittee on Healthcare](#), District of Columbia, Census, and the National Archives, July 24, 2012, pp. 3–5, <http://oversight.house.gov/> (accessed July 25, 2012). David Dzielak, Executive Director, Mississippi Division of Medicaid, letter, July 26, 2012.
- ⁶⁰ Asthma and Allergy Foundation of America, "Pseudoephedrine Awareness Study – Executive External Report," January 22, 2011, pp. 3, 12, 16, and 18, <http://aafa.org/> (accessed Nov. 19, 2012).
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- ⁶⁵ The Tennessee Methamphetamine Task Force (TMTF) merged with the Tennessee Drug Diversion Task Force in February 2012 to become the Tennessee Methamphetamine and Pharmaceutical Task Force. This section focuses on the methamphetamine-related activities and achievements.
- ⁶⁶ Tommy Farmer, Director and Jim Derry, Criminal Analyst, Tennessee Methamphetamine and Pharmaceutical Task Force, interview, April 5, 2012.
- ⁶⁷ Information provided to OREA from the Tennessee Office of Justice Programs, e-mail, May 11, 2012.

APPENDIX A: EPIC METHAMPHETAMINE LAB INCIDENTS BY STATE, 2000 THROUGH 2011 (AS OF OCTOBER 4, 2012)

State	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Alabama	105	231	343	524	804	529	273	249	624	673	720	294
Alaska	29	14	35	54	121	68	20	7	19	13	22	5
Arizona	478	357	294	261	221	140	50	23	34	25	18	5
Arkansas	410	563	646	1171	1361	701	450	380	419	673	825	325
California	2277	1992	1792	1319	873	525	462	323	422	329	225	168
Colorado	203	309	527	524	421	276	137	75	62	48	32	13
Connecticut	0	2	2	2	0	5	5	2	2	4	2	0
DC	0	0	0	0	1	0	0	0	0	0	2	1
Delaware	2	0	0	2	3	1	0	0	1	1	3	2
Florida	19	44	190	321	441	471	205	186	214	415	528	164
Georgia	73	111	224	441	549	434	192	119	197	217	334	141
Hawaii	7	5	12	5	17	18	4	1	0	0	3	0
Idaho	161	146	134	121	75	35	23	23	14	17	19	8
Illinois	170	409	711	1084	1582	1431	864	401	379	416	478	642
Indiana	367	526	765	1049	1385	1508	838	815	739	1328	1260	1447
Iowa	290	585	925	1473	1688	915	364	198	242	336	381	423
Kansas	687	850	793	707	650	418	195	101	162	185	244	224
Kentucky	116	186	388	517	624	616	336	310	442	744	1361	1771
Louisiana	19	19	146	138	179	144	28	54	45	163	218	70
Maine	2	4	0	0	4	6	5	1	4	1	6	6
Maryland	0	2	2	2	4	5	9	2	2	0	3	1
Massachusetts	0	2	3	2	3	8	6	6	4	4	2	2
Michigan	24	134	264	376	461	514	290	213	457	718	867	444
Minnesota	165	215	337	483	289	170	69	48	46	31	27	9
Mississippi	147	264	529	459	562	360	299	182	440	960	937	321
Missouri	936	2202	2771	2899	2927	2343	1329	1295	1522	1814	1998	2120
Montana	35	76	104	132	107	36	13	10	11	18	22	11
Nebraska	38	209	373	294	328	288	35	30	67	40	27	19
Nevada	286	267	108	250	153	86	44	24	17	16	13	17
New Hampshire	1	3	1	2	2	9	6	5	1	7	11	23
New Jersey	0	3	3	1	3	4	8	2	4		1	0
New Mexico	81	148	170	306	227	103	52	46	74	68	65	21
New York	2	9	31	35	70	27	45	17	20	20	34	49
North Carolina	19	38	73	224	474	493	219	161	197	216	239	404
North Dakota	36	88	211	262	239	175	43	27	35	35	8	9
Ohio	37	102	141	231	535	671	376	233	260	344	387	368
Oklahoma	517	953	1055	1428	916	329	223	114	194	792	894	1024
Oregon	395	633	618	584	632	232	67	43	48	17	21	11
Pennsylvania	9	20	34	66	139	103	65	19	24	62	49	9
Rhode Island	0	1	4	1	0	0	2	0	0	0	0	2

State	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
South Carolina	6	12	70	170	343	254	113	68	130	244	345	343
South Dakota	8	24	38	49	37	26	15	13	11	9	22	5
Tennessee	317	634	818	1604	2378	1762	907	603	834	1501	2157	2333
Texas	542	765	683	870	743	442	188	158	250	275	194	90
Utah	275	203	153	113	107	68	39	8	15	15	10	10
Vermont	0	0	0	0	1	2	0	2	0	0	4	0
Virginia	1	5	10	46	110	87	22	25	21	29	107	202
Washington	994	1486	1441	1008	966	547	338	241	127	70	46	33
West Virginia	3	21	67	106	329	445	166	113	116	139	207	93
Wisconsin	31	52	96	128	111	80	34	8	18	27	48	43
Wyoming	13	39	68	36	27	13	6	9	7	0	12	3
Totals	10,333	14,963	18,203	21,880	24,222	17,923	9,479	6,993	8,973	13,059	15,438	13,728

Source: El Paso Intelligence Center (EPIC), National Seizure System, unpublished data (extracted on October 4, 2012).

APPENDIX B: OVERVIEW OF FEDERAL METHAMPHETAMINE PRECURSOR LAWS

Chemical Diversion and Trafficking Act of 1988

- Required import and export notification and record-keeping requirements on bulk ephedrine and pseudoephedrine products, but did not include over-the-counter (OTC) products containing ephedrine and pseudoephedrine.

Domestic Chemical Diversion Control Act of 1993

- Removed the record-keeping requirement and reporting exemption from OTC products and required distributors, importers, and exporters to register List I chemicals⁶⁴ with the United States Drug Enforcement Administration (DEA).

Comprehensive Methamphetamine Control Act of 1996

- Broaden the existing restrictions on methamphetamine precursor products and included OTC cold and sinus medicines to the list of chemicals to be regulated by the DEA.
- Added ephedrine, pseudoephedrine and phenylpropanolamine as a Schedule II controlled substance.

Methamphetamine Anti-Proliferation Act of 2000

- Lowered the minimum mandatory quantity on methamphetamine for law enforcement to initiate a drug trafficking penalty.
- Reduced in half the quantity of methamphetamine needed for a convicted offender to serve a five to ten year minimum mandatory sentence.

Combat Methamphetamine Epidemic Act of 2005

- Controlled the diversion of OTC products to methamphetamine from mail order and retail sources.
- Required products to be packed in containers of no more than 3 grams of the products used to produce methamphetamine.
- Expanded the controls on the distribution of products used in methamphetamine production.

Combat Methamphetamine Enhancement Act of 2010

- Builds upon the 2006 Combat Methamphetamine Enhancement Act to ensure retailers effectively control methamphetamine precursors and handle and distribute chemicals in a safe and responsible manner.
- Requires the Attorney General to develop and maintain a list of self-certified individuals for public inspection on the Drug Enforcement Administration's website.

Source: Congressional Research Service, Methamphetamine: Background, Prevalence, and Federal Drug Control Policies, 2007; National Association of State Controlled Substances Authorities, 2012; and OREA summary based on review of federal Public Laws on methamphetamine.

APPENDIX C: OVERVIEW OF TENNESSEE’S METHAMPHETAMINE-RELATED LAWS

Criminal Penalties
Public Acts 2004, Ch. 845
<ul style="list-style-type: none"> ▪ Establishes a criminal offense for a person to possess methamphetamine or acquire by theft with the intent to manufacture or convey to another person for their use to manufacture.
Public Acts 2007, Ch. 143
<ul style="list-style-type: none"> ▪ Provides that a violation with possession of methamphetamine greater than 5 grams is a state offense and should be tried in a state court. All fines and forfeitures of bonds should be paid to the appropriate state agency.
Public Acts 2010, Ch. 899
<ul style="list-style-type: none"> ▪ Makes it a Class B misdemeanor to enter onto the quarantined property without authorization from the federal, state, county or municipal government.
Public Acts 2011, Ch. 292 – “I Hate Meth Act”
<ul style="list-style-type: none"> • Increases the penalty for making methamphetamine in the presence of children and imposes a minimum mandatory fine on offenses.
Public Acts 2012, Ch. 764
<ul style="list-style-type: none"> ▪ Identifies “smurfing” as a criminal penalty.
Precursor Control
Public Acts 2005, Ch. 18 – “Meth-Free Tennessee Act of 2005”
<ul style="list-style-type: none"> ▪ Establishes precursor control for ephedrine and pseudoephedrine products. ▪ Places pseudoephedrine and ephedrine products behind the pharmacy in a locked case within 25 feet of the counter to be dispensed by a licensed pharmacist. ▪ Requires government-issued identification at the point-of-sale. ▪ Quantity restrictions no more than 3.6 grams per day and 9 grams during a 30-day period ▪ Requires a written log of all purchases of pseudoephedrine and ephedrine products to be kept by the pharmacy. ▪ Creates the methamphetamine registry within the Tennessee Bureau of Investigations.
Public Acts 2011, Ch. 292 – “I Hate Meth Act”
<ul style="list-style-type: none"> ▪ Tracks the sale of products containing pseudoephedrine and ephedrine by the use of NPLeX. ▪ Requires government-issued photo identification at the point-of-sale. ▪ Requires patient counseling by licensed pharmacist or pharmacist intern involving the sale of pseudoephedrine and ephedrine based products. ▪ Blocks the sale of precursors from convicted offenders placed on the Methamphetamine Registry.
Public Awareness and Education
Public Acts 2009, Ch. 186, § 17
<ul style="list-style-type: none"> ▪ Amends the “Comprehensive Alcohol and Drug Treatment Act of 1973” allowing the Department of Education to raise public awareness concerning the dangers of methamphetamine. This act also requires individuals who receive counseling to pay the necessary cost. Individuals who are unable to pay the cost will not be denied counseling.

Quarantine of Properties**Public Acts 2004, Ch. 855**

- Creates the quarantine of properties for hazardous sites containing methamphetamine and authorizes the Commissioner for the Department of Environment and Conservation to oversee the functions for the cleanup of the sites.
- Provides authority for local courts to grant or deny petitions relative to the quarantine of properties and allows restitution to be paid by the defendant.

Public Acts 2005, Ch. 347

- Amends the “Meth-Free Tennessee Act of 2005” creating the notice of methamphetamine lab quarantine form to be completed by law enforcement and filed in the county register’s office.
- Creates the certificate of fitness form to be completed by the certified industrial hygienist.

Source: OREA summary based on review of Tennessee Public Chapters.

APPENDIX D: TENNESSEE METHAMPHETAMINE AND PHARMACEUTICAL TASK FORCE⁶⁵

The Tennessee Methamphetamine and Pharmaceutical Task Force (TMPTF) has coordinated and funded Tennessee's fight against methamphetamine. The TMPTF began in 1999 in Hamilton County as a collaboration of five southeastern counties with significant methamphetamine problems. In 2005, recognizing the methamphetamine problem had expanded in other areas of Tennessee, the TMPTF, with the assistance of the Tennessee Bureau of Investigation (TBI), expanded its mission statewide. TMPTF uses a small staff to coordinate the efforts of federal, state, and local law enforcement agencies. TMPTF uses primarily federal funds to cover many of the costs associated with investigating and cleaning up methamphetamine production, which most local governments cannot afford. TMPTF's focus is to assist law enforcement in targeting methamphetamine production and distribution through training, intelligence gathering, and public awareness on the dangers of methamphetamine use.

Since 2007, the TMPTF, with TBI as the grantee agency, has received about \$6.7 million in no-match federal funding for its operations and to provide resources to state and local law enforcement at no cost to their agencies. Recent state and federal budget cuts and an increase in the demand for services had led the TMPTF to reduce its activities. As of August 2012, the TMPTF had a balance of \$2.6 million from those grants. Current federal funding for TMPTF operations, unless renewed or replaced by other funding, is expected to be depleted by the end of 2013.⁶⁶

The TMPTF has also coordinated federal Drug Enforcement Administration funds for the cleanup of methamphetamine labs in Tennessee. In 2010, Tennessee received \$4.6 million in federal funds for lab cleanup. Between February and July 2011, federal funds for cleanup were not available; some federal funds for cleanup were restored in July 2011. In 2011, the TMPTF received federal funds through Edward Byrne Justice Assistance Grants (JAG), with a required 25 percent state fund match, to help fund up to \$265,000 for the development of an Authorized Central Storage Container Programs (ACS) for lab waste disposal.² As of April 2012, the TMPTF had three full-time employees and 22 part-time contract employees paid through TMPTF federal grant funds. In addition, three Tennessee National Guardsmen from their Counter-Drug Division were assigned full-time to the TMPTF's TMIS system.

Significant activities and achievements of TMPTF include:

- **Training:** Trained over 5,200 state and local officers between 2007 and 2010 on methamphetamine-related issues including evidence gathering, methamphetamine lab processing and safe lab disposition.
- **Information:** Developed and maintains TMIS, which collects statewide information on methamphetamine lab seizures and arrests as well as pseudoephedrine purchases. Although not required by law, TMPTF worked with pharmacies in Tennessee to electronically submit pharmacy precursor purchase data. Through the analysis of this data, TMIS identifies and alerts law enforcement of suspicious purchasers of precursors including persons with prior methamphetamine arrests or convictions, persons that law enforcement encountered at methamphetamine lab sites, or persons or groups whose purchasing patterns indicate a potential for pseudoephedrine diversion to methamphetamine production. TMPTF has shared its TMIS system with eight other states and the federal DEA at no charge.

- **Technical Assistance:** Operates 12 fully equipped staffed trucks stationed throughout the state on call around the clock to assist state and local law enforcement to investigate and decontaminate methamphetamine lab sites.
- **Public Awareness:** In conjunction with the Tennessee National Guard's Counter-Drug Division, conducted public awareness training and education to over 35,000 individuals including schools, health care workers, first responders, social workers, civic groups, community-based organizations, and legislative groups.
- **Financial Assistance:** Provided overtime reimbursement to local law enforcement agencies to help cover the high cost of processing clandestine methamphetamine lab sites and investigating drug trafficking organizations.
- **Cleanup Assistance:** Secured and administered federal funds to cleanup methamphetamine lab sites. In 2011 when federal funding was curtailed, the TMPTF quickly developed an alternative regional methamphetamine lab hazardous waste disposal and storage system, which reduced cleanup costs from an average of \$2,500 per site to less than \$500.
- **Equipment:** Provided certified clandestine lab officers approximately \$20,000 in essential protective gear and equipment required to safely process a toxic methamphetamine lab.⁶⁷

Sources: Tammy Garland and Vic Bumphus, *Methamphetamine in Tennessee: A Report on the Progress of the Tennessee Task Force*, University of Tennessee at Chattanooga, December 2011; OREA interviews with Tennessee Methamphetamine and Pharmaceutical Task Force staff in 2011 and 2012.

APPENDIX E: ENHANCED METHAMPHETAMINE PRECURSOR CONTROL POLICIES FOR OTHER STATES AS OF JUNE 30, 2012

State	Electronic Tracking Stop-Sales System	Requires Prescription		Sales Restrictions Out-of-State Residents	Lower Precursor Quantity Limits	Methamphetamine Offender Registry	
		Statewide	Local Ordinances			Blocks Convicted Offenders (Y)	Block Convicted Offenders (N)
Alabama	•			•	•	•	
Alaska					•		
Arizona	•*						
Arkansas	•			•			
California							
Colorado							
Connecticut							
Delaware							
Florida	•						
Georgia							
Hawaii	•*						
Idaho	•*						
Illinois	•				•		•
Indiana	•				•		
Iowa	•				•		
Kansas	•						•
Kentucky	•						
Louisiana	•						
Maine	•*						
Maryland							
Massachusetts							
Michigan	•						
Minnesota					•		•
Mississippi		•					
Missouri	•		•				
Montana							•
Nebraska	•						

State	Electronic Tracking Stop-Sales System	Requires Prescription		Sales Restrictions Out-of-State Residents	Lower Precursor Quantity Limits	Methamphetamine Offender Registry	
		Statewide	Local Ordinances			Blocks Convicted Offenders (Y)	Block Convicted Offenders (N)
Nevada							
New Hampshire							
New Jersey							
New Mexico							
New York							
North Carolina	•						
North Dakota	•						
Ohio							
Oklahoma	•*					•	
Oregon		•					
Pennsylvania							
Rhode Island							
South Carolina	•						
South Dakota							
Tennessee	•					•	
Texas	•						
Utah							
Vermont							
Virginia	•*						
Washington	•						
West Virginia	•*						
Wisconsin					•		
Wyoming							
Total	25	2	1	2	8	3	4

Notes: States with policies more restrictive than the *Combat Methamphetamine Epidemic Act of 2005 (CMEA)*. General information for the CMEA is available at http://www.deaddiversion.usdoj.gov/meth/cma2005_general_info.pdf (accessed July 12, 2011).

All states that have adopted an electronic tracking system are currently using NPLeX with the exception of Arkansas.

* NPLeX implementation date of January 1, 2013

Source: OREA analysis of other states' enhanced methamphetamine precursor control policies; National Association of State Controlled Substances Authorities, *Impact of State Laws Regulating Pseudoephedrine on Methamphetamine Trafficking and Abuse*, 2012, p. 8 and Appendix, <http://www.nascsa.org/> (accessed June 4, 2012).

APPENDIX F: SURVEY OF TENNESSEE LAW ENFORCEMENT – PRELIMINARY ASSESSMENT OF NPLEx, AUGUST 2012



**STATE OF TENNESSEE
COMPTROLLER OF THE TREASURY
OFFICE OF RESEARCH
OFFICE OF EDUCATION ACCOUNTABILITY
505 Deaderick Street, Suite 1700
Nashville, Tennessee 37243-0268
Phone 615-401-7866
Fax 615-532-9237**

Dear Tennessee Law Enforcement Official:

The Tennessee General Assembly has directed the Comptroller's Office to study methamphetamine use and production in Tennessee. The study will include a preliminary assessment of the use and effectiveness of the National Precursor Log Exchange (NPLEx). Since January 2012, pharmacies have been required to use NPLEx to record sales of pseudoephedrine products to ensure purchases are within the statutory limits.

Law enforcement officers can register with Appriss to use information in NPLEx to assist in their investigations of methamphetamine manufacturing cases. The Comptroller's Office is surveying all Tennessee Sheriffs, Police Chiefs, and District Attorneys General on the use and effectiveness of the NPLEx system. The survey also includes questions about methamphetamine production in each jurisdiction. Law enforcement input will inform state policymakers about the effectiveness of laws used to control the diversion of pseudoephedrine to the manufacturing of methamphetamine.

Please complete or designate an officer in your agency who deals with methamphetamine cases to complete the online survey by August 24, 2012 ([click here](#) to complete the online survey). We ask that you complete one survey per agency. **Responses to this survey will be reported in aggregate form only in the final report. Neither individuals nor entities will be identified by name.**

Thank you for your participation in this study. You will have the opportunity to indicate at the end of the survey if you would like an electronic copy of the final report. If you have questions, please contact Shiri Anderson at (615) 401-7886 or Shiri.Anderson@cot.tn.gov.

Sincerely,

Susan Mattson 615-401-7884/ Susan.Mattson@cot.tn.gov
Senior Legislative Research Analyst
Shiri Anderson 615-401-7886/ Shiri.Anderson@cot.tn.gov
Associate Legislative Research Analyst

Tennessee Comptroller's Office of Research
Survey of Tennessee Law Enforcement – Preliminary Assessment of the National Precursor Log Exchange (NPLEx)

Thank you for participating in this survey related to laws used to control the diversion of pseudoephedrine to the manufacturing of methamphetamine. The survey will take 5 minutes or less depending on responses and must be completed in one sitting. Please press submit at the end of the survey to submit your responses. **Responses to this survey will be reported in aggregate form only in the final report. Neither individuals nor entities will be identified by name.**

You will have the opportunity to indicate at the end of the survey if you would like an electronic copy of the final report.

[Click here to begin the survey](#)

Tennessee Comptroller's Office of Research
Survey of Tennessee Law Enforcement– Preliminary Assessment of the National Precursor Log Exchange (NPLEx)

Respondent:

Title:

Type of Agency:* Sheriff's Department City Police District Attorney/Drug Task Force

County:*

Email:*

Phone (include area code):

Use of NPLEx

1. To what extent is your agency accessing information from NPLEx?

Very Often	Often	Sometimes	Rarely	Have Not Used the System
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. Do you find NPLEx to be user-friendly?

Yes No

Please provide suggestions for improvement:

3. Have you had operational issues with NPLEx?

Yes No

Explain how the issues were resolved:

4. Please rate the usefulness of the following features of NPLEx:

	Very Useful	Useful	Somewhat Useful	Not Useful
a. Real time information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Standard activity reports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Ability to query system for custom reports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Interstate communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Watch alerts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Other (please specify):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Effectiveness of NPLEx

5. To what extent did you consider methamphetamine labs to be a problem in your jurisdiction **before** the implementation of NPLEx in January 2012?

Significant Problem	Somewhat of a Problem	Not a Problem
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. To what extent do you consider methamphetamine labs to be a problem in your jurisdiction **after** the implementation of NPLEx in January 2012?

Greater Problem	No Significant Change	Less Serious Problem	No Longer a Problem
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6a. What factors do you think have contributed to the change?

7. How do you think pseudoephedrine sales in your jurisdiction have changed since the implementation of NPLEx in January 2012?

Increased Significantly	Increased Somewhat	No Change	Decreased Somewhat	Decreased Significantly
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Since the January 2012 implementation of NPLEx, do you believe the amount of pseudoephedrine diverted to manufacture methamphetamine:

Increased Significantly	Increased Somewhat	No Change	Decreased Somewhat	Decreased Significantly
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. How has NPLEx affected your enforcement efforts related to methamphetamine production?

Enhanced	Hindered	No Change
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9a. In what ways? (please specify and provide examples as appropriate)

10. To what extent have intelligence related arrests for methamphetamine manufacturing in your jurisdiction changed since the implementation of the NPLeX system?

Increased Significantly	Increased Somewhat	No change	Decreased Somewhat	Decreased Significantly
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. To what extent have intelligence related arrests for precursor sales for diversion to methamphetamine production in your jurisdiction changed since the implementation of the NPLeX system?

Increased Significantly	Increased Somewhat	No change	Decreased Somewhat	Decreased Significantly
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. Do you think individuals are circumventing the NPLeX system to obtain pseudoephedrine to divert to methamphetamine?

- Yes
 No

12a. How do you think individuals are circumventing the NPLeX system?

	Often	Occasionally	Seldom	Not At All
a. Buying from multiple pharmacies and exceeding limits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Buying in another state	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Paying others to buy pseudoephedrine for them to produce methamphetamine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Using false or fraudulent identifications to make multiple purchases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Other (please specify):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Policy Options

13. Please indicate how effective you believe the following options would be in controlling the diversion of pseudoephedrine to manufacture methamphetamine.

	Very Effective	Effective	Somewhat Effective	Ineffective	Very Ineffective
a. Continue the use of enhanced electronic tracking of purchases such as NPLeX	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Require a prescription for pseudoephedrine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Decrease the monthly sales limit of pseudoephedrine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Other (please specify):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Other (please specify):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Additional Comments

14. Are there any final comments you would like to share regarding methamphetamine and the use and effectiveness of NPLEx?

15. Would you like a copy of the final report sent to your email address?

Yes No

Click "Submit Survey" to send your response.

Submit Survey

Thank you for your
valuable input!

If you have questions or additional comments you would like to share, please contact Shiri Anderson at (615) 401-7886 or Shiri.Anderson@cot.tn.gov.

APPENDIX G – SURVEY OF TENNESSEE PHARMACISTS – PRELIMINARY ASSESSMENT OF NPLeX, AUGUST 2012



STATE OF TENNESSEE
COMPTROLLER OF THE TREASURY
OFFICE OF RESEARCH
OFFICE OF EDUCATION ACCOUNTABILITY
505 Deaderick Street, Suite 1700
Nashville, Tennessee 37243-0268
Phone 615-401-7866
Fax 615-532-9237

Dear Tennessee Pharmacist:

The Tennessee General Assembly has directed the Comptroller's Office of Research to study methamphetamine use and production in Tennessee. The study includes a preliminary assessment of the use and effectiveness of the National Precursor Log Exchange (NPLeX). Since January 2012, pharmacies have been required to use NPLeX to record sales of pseudoephedrine products to ensure purchases are within the statutory limits. The Comptroller's Office is surveying Tennessee pharmacists registered to use this system. As a direct user of NPLeX, and as a person who may have contact with individuals that attempt to circumvent this system, your input is important to inform state policymakers about the effectiveness of laws to control the diversion of pseudoephedrine to the manufacturing of methamphetamine.

Please [click here](#) to complete the online survey by September 7, 2012. We ask that you complete one survey per store. **Responses to this survey will be reported in aggregate form only in the final report. Neither individuals nor entities will be identified by name.**

Thank you for your participation in this study. You will have the opportunity to indicate at the end of the survey if you would like an electronic copy of the final report. If you have questions, please feel free to contact us.

Sincerely,

Susan Mattson 615-401-7884/ Susan.Mattson@cot.tn.gov

Senior Legislative Research Analyst

Shiri Anderson 615-401-7886/ Shiri.Anderson@cot.tn.gov

Associate Legislative Research Analyst

Use of NPLEx

3. Do you find NPLEx to be user-friendly?

- Yes No

Please provide suggestions for improvement:

4. How has the requirement to use NPLEx affected the time it takes you to process pseudoephedrine transactions?

Substantial Increase in Process Time	Moderate Increase in Process Time	No Change in Process Time	Moderate Decrease in Process Time	Substantial Decrease in Process Time
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. To what extent do you think legitimate consumer access to pseudoephedrine has been affected by the implementation of NPLEx?

Increased Significantly	Increased Somewhat	No Change	Decreased Somewhat	Decreased Significantly
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Have you had operational issues with NPLEx?

- Yes No

Explain how the issues were resolved:

7. Please rate the usefulness of the following features of NPLEx:

	Very Useful	Useful	Somewhat Useful	Not Useful
a. Real time information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Stop sales alerts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Ability to query system for sales reports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Other (please specify):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. How effective do you think NPLEx has been in reducing the diversion of pseudoephedrine to the illicit manufacturing of methamphetamine?

Very Effective	Effective	No Change	Ineffective	Very Ineffective
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. To what extent have pseudoephedrine sales in your store changed since the implementation of NPLEx in January 2012?

Increased Significantly	Increased Somewhat	No Change	Decreased Somewhat	Decreased Significantly
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Based on your experience, what percentage of pseudoephedrine sales in your store would you estimate were diverted to manufacture methamphetamine **before** the implementation of NPLEEx in January 2012?

- Greater than 50%
- > 40 to 50%
- > 30 to 40%
- > 20 to 30%
- > 10 to 20%
- > 0 to 10%
- 0%

11. Based on your experience, what percentage of pseudoephedrine sales in your store would you estimate was diverted to manufacture methamphetamine **after** the implementation of NPLEEx in January 2012?

- Greater than 50%
- >40 to 50%
- >30 to 40%
- >20 to 30%
- >10 to 20%
- > 0 to 10%
- 0%

12. Do you think individuals are circumventing the NPLEEx system to obtain pseudoephedrine to divert to methamphetamine?

- Yes
- No

12a. How do you think individuals are circumventing the NPLEEx system?

	Often	Occasionally	Seldom	Not At All
a. Buying from multiple pharmacies and exceeding limits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Buying in another state	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Paying others to buy pseudoephedrine for them to produce methamphetamine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Using false or fraudulent identifications to make multiple purchases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Other (please specify):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Policy Options

13. Please indicate how effective you believe the following options would be in controlling the diversion of pseudoephedrine to manufacture methamphetamine.

	Very Effective	Effective	Somewhat Effective	Ineffective	Very Ineffective
a. Continue the use of enhanced electronic tracking of purchases such as NPLeX	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Require a prescription for pseudoephedrine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Decrease the monthly sales limit of pseudoephedrine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Other (please specify):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Other (please specify):	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Additional Comments

14. Are there any final comments you would like to share regarding methamphetamine and the use and effectiveness of NPLeX?

15. Would you like a copy of the final report sent to your email address?

Yes No

Click "Submit Survey" to send your response.

Submit Survey

Thank you for your
valuable input!

If you have questions or additional comments you would like to share, please contact Shiri Anderson at (615) 401-7886 or Shiri.Anderson@cot.tn.gov.

APPENDIX H: TENNESSEE CONTROLLED SUBSTANCES SCHEDULES

Schedule	Criteria for Scheduling	Prescription Requirements	Examples
Schedule I	TCA § 39-17-405..... upon finding that the substance has: (1)High potential for abuse; and (2)No accepted medical use in treatment in the United States or lacks accepted safety for use in treatment under medical supervision.	Cannot be prescribed	TCA § 39-17-406 lists the control substances in Schedule I. Examples: Heroin and LSD
Schedule II	TCA § 39-17-407... upon finding that the substance has: (1)High potential for abuse; and (2) Currently accepted medical use in treatment in the United States, or currently accepted medical use with severe restrictions; and (3)The abuse may lead to severe psychic or physical dependence.	TCA § 53-11-308 lists the prescription requirements. (a)Except when dispensed by a practitioner other than a pharmacy to an ultimate user, these substances may not be dispensed without a written prescription of a practitioner. (b)In emergency situations, these drugs may be dispensed upon oral prescription of a practitioner, reduced promptly to writing and filed by the pharmacy as subject to the requirements of TCA § 53-11-305. • No prescription in this schedule can be refilled.	TCA § 39-17-408 list the control substances in Schedule II. Examples: Morphine, Oxycodone, Oxycontin, and Percocet
Schedule III	TCA § 39-17-409... upon finding that: (1) The substance has potential for abuse less than the substances listed in Schedules I and II; (2) Currently accepted medical use in treatment in the United States; (3) The abuse may lead to moderate to low physical or low physical dependence or high psychological dependence.	(c) Except when dispensed directly by a practitioner other than a pharmacy to an ultimate user, a controlled substance included in Schedule III or IV that is a prescription drug shall not be dispensed without a written or oral prescription of a practitioner. • Filled or refilled no more than six (6) months after the date of the prescription. • Refilled no more than five (5) times, unless renewed.	TCA § 39-17-410 lists the controlled substances in Schedule III. Examples: Anabolic steroids Vicodin Lortab

Schedule	Criteria for Scheduling	Prescription Requirements	Examples
Schedule IV	TCA § 39-17-413... upon finding that the substance has: (1) Low potential for abuse relative to the controlled substances listed in Schedules III; (2) Currently accepted medical use in Treatment in the United States; and (3) Abuse may lead to limited physical dependence or psychological dependence relative to the substances in Schedule III	Same as Schedule III	TCA § 39-17-412 lists the controlled substances in Schedule IV. <hr/> Examples: Xanax Valium Zopiclone
Schedule V	TCA § 39-17-415... upon finding that the substance has: (1) Low potential for abuse relative to the controlled substances in Schedule IV; (2) Currently accepted medical use in treatment in the United States; and (3) Limited physical or dependence or psychological dependence liability relative to the controlled substances in Schedule IV.	Can be dispensed by pharmacist (d) A substances listed in this Schedule should not be distributed or dispensed other than for a medical purpose.	TCA § 39-17-414 lists the controlled substances for Schedule V. <hr/> Example: Robitussin with codeine
Schedule VI	TCA § 39-17-415.... upon considering the factors in § 39-17-403, the Commissioner of Mental Health in agreement with the Commissioner of Health decides that the following substances should not be included in Schedules I through V.	Cannot be prescribed	TCA § 39-17-415 lists the controlled substances for Schedule VI. <hr/> Example: Marijuana
Schedule VII	TCA § 39-17-416 establishes the classification of substances that should not be included in Schedules I through IV. The controlled substance included in Schedule VII is Butyl nitrite and any isomer of Butyl nitrite.	Cannot be prescribed	TCA § 39-17-416 lists the controlled substances in Schedule VII. <hr/> Butyl nitrite

Note: Schedule I through V generally follow the federal criteria for scheduling; Schedule VI and VII are Tennessee specific schedules.

Source: Tennessee Department of Mental Health and review of *Tennessee Code Annotated*.

APPENDIX I: PERSONS CONTACTED

Focus Groups:

August 2011

Methamphetamine Stakeholders Meeting convened by Safety Commissioner Bill Gibbons, Chair,
Governor's Public Safety Subcabinet

October 2011

Tennessee Association of Police Chiefs
Tennessee District Attorney General's Conference, Executive Committee

December 2011

Tennessee Sheriffs' Association

November 2011

National Association of Chain Drug Stores – Bi-Lo, Rite Aid, Walgreens, Ingles Market, Wal-Mart

Individuals:

TN General Assembly

Representative David Hawk
Representative Debra Maggart
Senator Randy McNally
Representative David Shepard

TN District Attorneys General Conference

James W. Kirby, Executive Director
6th: Randall Nichols, District Attorney
7th: Dave Clark, District Attorney
8th: Paul Phillips, District Attorney
23rd: Dan Alsobrooks, District Attorney
John Etheridge, Assistant Director/Investigator
Michael Pate, Agent, Drug Task Force
25th: Mike Dunavant, District Attorney
30th: Chris Scruggs, Assistant District Attorney General

TN District Public Defenders Conference

Jeffrey S. Henry, Executive Director
12th: Phil Condra, Assistant Public Defender

TN Sheriffs

Anderson County

Paul White, Sheriff
Jim Leinart, Drug Agent

Greene County

Steven Burns, Sheriff McMinn County
Joe Guy, Sheriff

Williamson County

Jeff Long, Sheriff

TN Police Chiefs

City of Clinton, Tennessee

Rick Scarbrough, Police Chief

Appriss, Inc.

Jim Acquisto, Vice President of Government Affairs

Krista McCormick, NPLEx Account Manager

State and National Membership Associations

Consumer Healthcare Products Association

Carlos Gutierrez, Director, State Government Relations

Mike Bivens, Bivens and Associates (local counsel)

National Association of Chain Drug Stores

Jill McCormack, Regional Director, State Government Affairs

National Conference of State Legislatures

Karmen Hanson, Program Manager, Health Program

Tennessee Association of Chiefs of Police

Maggie McLean Duncan, Executive Director

Tennessee Medical Association

Gary Zelizer, Executive Director

Tennessee Pharmacists Association

Baeteena Black, Executive Director

Micah Cost, Director of Professional Affairs

Tennessee Sheriffs' Association

Shelly Linville Bryan, Administrative Assistant

Tennessee Retail Association

Roland Myers, President and CEO

TN Hospitals

Erlanger Hospital, Chattanooga

Stephen Johnson, Government Affairs Director

Vanderbilt University Medical Center, Nashville

Jeff Guy, MD, Burn Unit

David Mills, Associate Director, State Policy and Legislative Affairs

John A. Morris, MD, Director of Trauma and Critical Care

TN Pharmacists

Alan Corley, Corley's Pharmacy, Greeneville

Danny Dedmon, City Drugs, Dyersburg

Reggie Dilliard, Walgreens, Nashville

Jason Greene, Reeves Sain Drug Store, Murfreesboro

Ferrell Haile, Perkins Drug Store, Gallatin

Phil Hopkins, Walgreens, Hixson

TN State Agencies

Administrative Office of the Courts

Tammy Hawkins, Technology Services Manager

Lisa McClendon, Court Technology Assistant
 Board of Probation and Parole
 Jim Purviance, Director, Research, Policy, and Planning
 Bureau of Investigation
 William Benson, Assistant Director, Drug Investigation Division
 Jackie Vandercook, Assistant Director, Statistics
 Commission on Children and Youth
 Pat Wade, CPORT Director
 Department of Children's Services
 Carla Aaron, Executive Director of Child Safety
 Department of Correction
 Mary Karpos, Director, Decision Support: Research and Planning
 Department of Health
 Terry Grinder, former Executive Director, Tennessee Board of Pharmacy
 Andy Holt, Executive Director, Tennessee Board of Pharmacy
 Elizabeth Miller, Director, Health Related Boards
 Department of Mental Health and Substance Abuse Services
 Rodney Bragg, Assistant Commissioner, Substance Abuse Services
 Jason Carter, Chief Pharmacist
 Karen Edwards, Research Coordinator
 Zach Griffith, General Counsel
 Kurt Hippel, Director, Office of Rules and Legislation
 Anthony T. Jackson, Research Analyst
 Doug Varney, Commissioner
 Department of Safety
 Bill Gibbons, Commissioner
 Methamphetamine and Pharmaceutical Task Force
 Jim Derry, Criminal Analyst
 Tommy Farmer, Director

Treatment

Council for Alcohol and Drug Abuse Services (CADAS), Chattanooga
 Debbie Loudermilk, Director of Outpatient Services
 Patients in treatment for methamphetamine abuse at CADAS

Federal Agencies

Drug Enforcement Administration, Office of Forensic Sciences
 Steve Wasseem, Section Chief
 El Paso Intelligence Center
 Katherine Cmiel-Acevedo, Lead IT Management Specialist
 U.S. Department of Justice
 Gary Baude, Senior Program Specialist
 U.S. Government Accountability Office, Homeland Security and Justice,
 Kirk Kiester, Assistant Director
 Chris Hatscher, Senior Analyst
 Yvette Gutierrez-Thomas, Senior Analyst

Other States' Agencies

Alabama

Captain Damon Summers, Commander, Department of Safety

Arkansas

Jerry Buck, Scientific Operator, State Crime Laboratory

Fran Flener, State Drug Director

Chris Harrison, Chief, State Crime Laboratory

Steve Verity, Policy Analyst, State Drug Director's Office

Ralph Ward, Criminal Information System

Stuart Woodward, Clandestine Laboratory Coordinator, State Police

Florida

David Gross, Special Agent Supervisor, Florida Department of Law Enforcement

Georgia

Chris Hosey, Inspector, Drug Enforcement, Bureau of Investigation

Illinois

Don Payton, Statewide Clandestine Laboratory Coordinator, State Police Department

Kansas

Loretta Severin, Drug Strategy Coordinator, Bureau of Investigation

Louisiana

Sgt. Harold Jean Batiste, Lafayette Field Office, State Police

Tomas Doss, State Trooper, Monroe Field Office, State Police

Michael Nugent, State Trooper, Alexandria Field Office, State Police

Lieutenant Jay Oliphant, State Police

Sgt. Jason Parker, Shreveport Field Office, State Police

Brian Thierbach, State Trooper, Lake Charles Field Office, State Police

Michigan

Lt. Tony Saucedo, Detective, Southwest Drug Enforcement Team, State Police

Sgt. Steve Spink, Detective, Methamphetamine Division, State Police

Minnesota

Julie LeTourneau Lackner, Biometric and Criminal History Business Services Manager, Bureau of Criminal Apprehension

Mississippi

Marshall Fisher, Executive Director, Bureau of Narcotics

Eddie Hawkins, Methamphetamine Field Coordinator, Bureau of Narcotics

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