Introduction

Methamphetamine, or meth, is a highly addictive, synthetically produced, central nervous system stimulant that, according to the U.S. Drug Enforcement Administration (DEA), is the most common synthetic drug manufactured in the United States. The recent, rapid growth of methamphetamine users in the United States largely is due to the ability to produce it using conventional, easily accessible chemicals and supplies. While other major illegal drugs, such as cocaine or heroin, are imported from South American or Asian countries, most methamphetamine consumed in the United States is produced locally with a recipe downloaded from the Internet and readily available products like pseudoephedrine and ephedrine* (found in decongestants and other cold medications), iodine, rock salt, battery acid, anhydrous ammonia and some basic kitchen items like plastic bags, glass cookware, funnels and soda bottles. According to the National Institute on Drug Abuse, approximately 10 million people 12 years and older have abused methamphetamine in their lifetimes and, in 2005, about 500,000 people were current users.5 Other than marijuana, it is perhaps the

---

*Pseudoephedrine and ephedrine are stereoisomers; they have the same molecular formula and the same sequence of molecular bonds, but different three-dimensional spatial arrangements. They both, along with related compounds like phenylpropanolamine, or other salts, optical isomers, or salts of optical isomers, serve the same function in the production of methamphetamine. Therefore, for the purposes of this report, unless it is necessary to differentiate it from other similar compounds, the term “ephedrine” will be used to refer to this class of drugs.
first major drug to have vast quantities produced in rural regions of the country. This is attributable to the fact that meth production requires discrete locations, such as abandoned farms, fields, vehicles, barns and old hotel rooms.

The Southern Legislative Conference (SLC) has been tracking the issue of crystal methamphetamine production, distribution and use for almost a decade. In 2001, the SLC published a report, Methamphetamine Production and Abuse in Southern States, which examined the rise in popularity of the drug from the early to mid 1980s and assessed its impacts on Southern states. It concluded that “methamphetamine has taken hold across the South and Midwest. It has become a particularly pernicious and perplexing problem in states such as Arkansas, Missouri, Oklahoma and Texas, but policymakers are confronted with a potential increase in the production and use of methamphetamine across the South.”

Concerns were not unfounded. Meth has become one of the most dangerous illegal substances in Southern states, and almost every SLC state is seeing annual increases in meth laboratory seizures. According to the DEA, meth labs are, by far, the most common clandestine laboratories in the United States.

**What is Meth?**

Methamphetamine has dozens of common nicknames, usually derived from the form the drug is in when it is consumed. These include “speed,” “crank,” “ice,” “crystal,” “glass,” “chalk” and “meth.” It can be snorted, injected, smoked or swallowed. The term “crystal meth” is a reference to the most common form methamphetamine takes—a crystallized formation—when it is synthesized for consumption. Methamphetamine, when consumed, creates a sense of euphoria by increasing the release of dopamine in the brain. The drug has profound effects on the user’s mood, metabolism, ability to concentrate and sex drive. The euphoric high is followed by a “crash,” which often leads to increased use of the drug and, eventually, to difficulty feeling any pleasure at all, except that which can be derived from the drug itself, enhancing the potential for addiction and continued abuse.

Methamphetamine can produce euphoric effects anywhere from eight to 24 hours, depending on the amount that is consumed. In comparison to cocaine, which only produces a 20- to 30-minute high following consumption and, after only one hour, 50 percent has left the body, meth remains in the brain longer and causes much more serious damage to blood vessels and dopamine transporters. Correspondingly, the drug can cause significant visual hallucinations, violent behavior, paranoia and confusion that far exceed the degrees of negative side effects from other common illegal drugs. The long-term effects of methamphetamine, even after use has ceased, are more severe as well, leading to profound anxiety, confusion, insomnia, psychotic features, such as delusions, and cardiovascular problems.

Although the euphoric effects of the drug are similar to those produced by cocaine and heroin, the rate of recovery from meth use is much lower than any other drug. According to the National Center on Substance Abuse and Child Welfare, approximately 50 percent of meth users relapse, 36 percent of those within the first six months of treatment. The Center also indicates that the rates of treatment completion for the estimated 1.4 million annual meth users in the country are similar, if not lower, than treatment completion rates for drugs like heroin and cocaine. This is due in part to the fact that treatment options for meth, unlike those for heroin and cocaine, are largely behavioral therapies; medical treatment, similar to a methadone regimen, essentially is nonexistent for meth. Also, unlike other drugs where greater tolerance comes with more frequent use, the addictive properties of meth make it such that the more a person consumes, the more they crave it. In addition, many rural areas do not have the health facilities necessary for treating addicts, leaving numerous users with no treatment options.

**Meth Risks**

Methamphetamine has serious physical implications for users, such as tooth decay, also referred to as ‘meth mouth.’ Contrary to the popular belief that this condition is a result of the harsh chemicals contained in the drug, meth mouth really is a result of the drying of saliva glands and teeth grinding that occurs during meth use, as well as lapses in personal hygiene and the consumption of sugary foods, which meth users typically desire. Meth also causes structural damage to regions of the brain that control motor skills and memory. Moreover, the production of meth results in a host of environmental and health hazards, including airborne and persistent toxins and not infrequent explosions. The regular presence of children near meth labs compounds the risks of production by placing more vulnerable populations in danger.
Extended methamphetamine use also can lead to brain damage, with symptoms similar to those of Parkinson’s disease or Alzheimer’s disease. Methamphetamine damages nerve terminals in the brain that contain dopamine and serotonin, two chemicals essential for the central nervous system to function properly. Meth alters essential cerebral functions by impairing decision-making, memory and motor behaviors. It also can cause structural and functional deficits in brain areas associated with depression and anxiety. Studies have indicated that, in some tests, extended abstinence from the drug may allow some recovery from deficits in dopamine function in various regions of the brain. However, other tests have shown little or no recovery in brain function even in cases involving up to two years of abstinence, suggesting that long-term and even permanent brain damage may result from meth abuse.6

In addition to the immediate physical toll the drug can have on the body, methamphetamine is associated with higher rates of riskier sexual behavior and violence than other drugs. Meth simultaneously heightens the human libido and lowers inhibition, therefore linking it to higher rates of domestic violence, including sexual abuse. For this reason as well, meth is inextricably linked to the spread of hepatitis C, HIV and other sexually transmitted diseases. Along with riskier sexual behavior common to persons using meth, the use of contaminated injection equipment plays a role in the spread of these diseases among intravenous meth users. In addition, some studies indicate that physiological changes in meth users, such as compromised immune systems, may make them more vulnerable to HIV transmission. There also is some indication that HIV-positive meth users may see the onset of AIDS sooner than other patients, due to poor medication adherence or interactions between meth and HIV medications.7

The economic impact of crystal meth can be significant. A 2005 study issued by the Sam Walton College of Business at the University of Arkansas indicated that in Benton County alone, the home of Walmart Stores Inc., absenteeism and loss in productivity related to meth addiction cost employers more than $21 million annually. Also, The Centers for Disease Control and Prevention reports that the average age for first use is 22.1 years and that the highest rate of meth use is found in young adults, ages 18-25, followed by youths, ages 12-17, indicating the high potential for lifelong addiction and an acutely detrimental loss of productivity for communities.8

Federal Meth Laws

Methamphetamine was first synthesized in the late 1800s and has been used throughout the last century to treat a variety of ailments, from narcolepsy to depression. It was widely used as a stimulant during World War II. Following the war, the United States saw a slight rise in legal, prescribed use of methamphetamine, the dangerous effects of which were not fully known. It was not until the 1960s that the clandestine manufacturing of meth for recreational use was first discovered.

The first federal law targeting the use of meth in the United States was passed in 1983 and addressed the possession of meth cooking equipment and precursor drugs. Canada passed similar legislation the same year. In 1986, the U.S. Congress passed the Federal Controlled Substance Analogue Enforcement Act with the goal of curbing the rapidly growing designer drug market in the country. Despite these efforts, methamphetamine production, distribution and use continued to increase in various parts of the American West and Midwest, eventually spreading east and taking root in the South.9

Until recently, products containing ephedrine, such as Sudafed and Claritin-D, were sold as over-the-counter drugs. However, in 2005, the U.S. Congress passed the Combat Methamphetamine Epidemic Act,10 which mandates that all products containing precursor compounds be kept behind the counter or locked in a cabinet. The Act also restricts individuals from purchasing more than 3.6 grams of these products in a single day, more than nine grams in any 30-day period, or more than 7.5 grams in a 30-day period from a mail-order pharmacy or “mobile vendor.” In addition, the Act requires that individuals present a state or federal government issued photo identification card at the time of each purchase. Also, pharmacies must keep a written or electronic logbook of all ephedrine transactions, including the customer’s name and address; date of purchase; product name; and the quantity purchased, for at least two years from the date of purchase.11 The customer must provide a signature and confirm that the information provided is true and accurate.

The United States also experiences large amounts of meth trafficked into the country from or through Mexico. In 2005, the Mexican federal government began implementing...
ing restrictions on imports of ephedrine and other chemicals used in meth production. In 2007, Mexico prohibited ephedrine imports into the country, effective in 2008, and a ban on the use of the chemical by 2009. These restrictions have contributed to a significant decrease in meth production in Mexico and a corresponding decrease in the amount trafficked into the United States. For instance, there was a 38 percent decrease in the amount of meth seized along the U.S.-Mexico border between 2006 and 2007. According to the DEA, 80 percent of the methamphetamine produced in the United States is made in large production operations, or “super labs,” in Mexico or California. In most cases, these labs are operated or owned by organized crime syndicates. However, even though the amount trafficked into the country from Mexico has decreased, the United States has continued to see an increase in meth availability as a result of increased domestic production.\(^\text{11}\)

Due largely to restrictions on ephedrine sales, from 2004 to 2007, methamphetamine laboratory seizures steadily decreased both nationally and in individual states. However, according to the U.S. Department of Justice’s National Drug Intelligence Center, the United States saw an increase in meth lab seizures from 2007 to 2008. In fact, by midyear 2008, in many states, including Alabama, Missouri, North Carolina, Oklahoma and South Carolina, methamphetamine laboratory seizures significantly outpaced or exceeded seizures reported for all of 2007. For example, Alabama saw more laboratories seized from January through July 2008 (125 labs) than in all of 2007 (81 labs).\(^\text{12}\)

A similar dynamic is being experienced in Mexico with the diversion of ephedrine purchases from legitimate sources in South America. After the amount of meth seized along the U.S.-Mexico border decreased from 2005 to 2007, the amount began to increase again in early 2008. This likely is due to an increase in “super laboratories,” particularly those that use the phenyl-2-propane (P2P) method, or nonephedrine-based methamphetamine production, in which phenylacetic acid is used to produce a meth precursor compound that can be used in place of ephedrine to produce a lower quality brand of methamphetamine. Mexico has reported increases in these operations, which are directly related to stricter ephedrine regulations, with some capable of producing up to 1,200 pounds of methamphetamine a month.\(^\text{13}\)

Estimates of the amount of methamphetamine smuggled from Canada into the United States are limited. What data are available do not indicate increases in seizures along the border nor increases in the amount of meth entering the United States from Canada.

It is not only methamphetamine trafficking that contributes to increased accessibility to the drug; ephedrine products are being trafficked into the region as well. Increases in production in other parts of the country suggest the likelihood that there will be greater amounts of the precursor drugs trafficked into the Southern region, particularly into areas with stricter ephedrine purchasing and other laws, but with high demand. For instance, law enforcement reporting indicates that a large portion of ephedrine collected in the Southwest is destined for Atlanta, Georgia, and other major Southern cities. A stable supply of ephedrine shipments to these major metropolitan areas is likely to result in significant increases in methamphetamine production laboratories in the region.\(^\text{14}\)

In addition to the increase of ephedrine products being trafficked between states, increases in meth production most likely are attributable to two factors: the development of a new method to produce meth using smaller amounts of precursor drugs and the ability of customers to circumnavigate existing ephedrine purchasing restrictions. Individuals and criminal groups can get around purchasing restrictions by making numerous, small quantity purchases of products containing precursor drugs. This strategy often is referred to as “smurfing.” Often, smurfing operations are organized in order to sell the precursor chemical to methamphetamine producers or trade it for the drug.\(^\text{15}\)

The second reason producers and distributors are able to get around precursor purchasing laws is the development of new ways to produce meth, namely the “shake-and-bake” method. Laboratories increasingly are shifting away from large production facilities to more portable ones. Shake-and-bake is a new method of production that replaces cooking the substances required to make methamphetamine by simply shaking the chemicals in a bottle to initiate the necessary chemical reaction. The method produces smaller amounts of meth—usually around eight grams. Since this new process requires neither a large space nor as many materials as traditional cooking methods (producing meth with the shake-and-bake method only requires a few pills, a two liter bottle and some common household chemicals), this new method is quick, cheap and mobile,
reducing the likelihood that producers will be apprehended. Also, this new method of production requires far less ephedrine as traditional cooking methods, which allows individuals to get around existing laws that restrict purchasing large amounts of the precursor drug. Additionally, the shake-and-bake method appeals to addicts, since their interest predominantly is producing small amounts for personal use, while minimizing risk, as opposed to producing large amounts required by dealers or distributors.16

The shake-and-bake method also allows producers to easily dispense of leftover materials once the substance is produced, which often involves throwing the residue out of a vehicle in a plastic bag, which has given rise to the term “trash labs.” There are serious environmental consequences of trash labs, since they contain noxious chemicals—animals as large as deer have been found dead near disposal sites—but there also are law enforcement complications as well, since each trash lab becomes a crime scene. Evidence must be collected and the areas must be cleared as quickly as possible to avoid explosions and other environmental damage that could further harm humans or wildlife. For every pound of methamphetamine that is produced, as much as six pounds of toxic waste is left behind. Cleanup of labs can cost thousands of dollars and can put personnel in danger. Also, when law enforcement personnel do find remnants of a trash lab, the illegal product confiscated often is too small for state or federal prosecutors to initiate legal action.17

Beyond the environmental complications produced by trash labs, their sheer prevalence indicates an alarming trend: meth is becoming easier to make and existing meth laws are becoming easier to circumvent. Officials in many states have indicated that the majority of meth lab seizures are now shake-and-bake operations. For instance, approximately 65 percent of all meth laboratory seizures in Tennessee are of the shake-and-bake variety. The state is among those that saw a decrease in lab seizures from 2005 to 2007, but are now seeing an increase, largely due to shake-and-bake production. Similarly, the number of lab seizures in Oklahoma, which dropped from 1,200 in 2003, to 148 in 2006, rose to 743 in 2009, largely due to the pervasiveness of shake-and-bake labs.18 The DEA has stated that the number of meth labs, which includes trash labs and remnants of production operations, rose nationally from 5,910 in 2007, to 6,783 in 2008, nearly a 15 percent increase. This followed nearly a 58 percent drop from 2003 to 2006, from 17,356 to 7,347 labs.

State Meth Laws
In addition to federal laws, 39 states have passed general restrictions on the sale of ephedrine, and two others—Oregon and Mississippi—require a prescription for their purchases. All 15 SLC states have restrictions on the sale of products containing precursor drugs, and many states have implemented task forces or other programs to combat the resurgence of meth. All but two member states of the SLC (Mississippi and South Carolina) have laws that restrict where ephedrine is kept in the store or the amount that can be purchased during a given time period. Electronic monitoring of ephedrine purchases is growing in popularity, as it is an extremely useful surveillance device for both pharmacies and law enforcement personnel. States that have instituted electronic reporting systems have seen dramatic reductions in the rate of illicit manufacturing of meth. Most systems simply require pharmacists or police personnel to have Internet access, along with a username and password, in order to log onto secure Web portals that house the information. Also, the prospect of requiring a prescription in order to obtain a product containing ephedrine is gaining popularity in states, now that meth production continues to proliferate despite other existing laws.

ALABAMA
The Alabama Legislature passed a law in 2010 that allows law enforcement personnel access to electronic databases that enable tracking of ephedrine sales. Pharmacists and any other retailers selling products containing ephedrine are required to enter the purchaser’s identification information into the database prior to a sale. Also, if a buyer exceeds the daily purchase limit, an alert is sent to the database, which then can be accessed by other pharmacies as well as state law enforcement agencies.19 The state experienced a 62 percent decrease in lab seizures from 2004 (385 labs) to 2007 (145 labs), most likely attributable to increased restrictions on the purchase of ephedrine products. The state saw its first increase in lab seizures from 2007 to 2008 (331), a 128 percent increase, the second largest among SLC states.20

ARKANSAS
The Arkansas General Assembly passed a law in 2005 that requires consumers to present a photo identification card before purchasing cold medications containing ephedrine. In 2007, the Arkansas Crime Information Center began maintaining digital logs of the sale of precursor drugs. The information is entered into a database in real time and ac-
cessible by all state pharmacies, other retailers and law enforcement personnel. In subsequent years, the state saw a decrease in overall meth lab seizures, dropping 62 percent from 2004 (800 labs) to 2007 (303 labs). However, the state experienced an increase in lab seizures for the first time in 2008 (319), 5 percent more than the previous year.21

**FLORIDA**

Florida law requires sellers of ephedrine to keep the product behind a counter and limits the amount that can be purchased legally. In 2010, the Legislature passed a law that requires retailers to track over-the-counter sales of all ephedrine products. The legislation also ensures that stores keep an electronic log of sales of these products. Florida saw a 56 percent decrease in meth lab seizures from 2004 (276 labs) to 2007 (121 labs). However, the state experienced a slight increase in lab seizures in 2008 (125 labs), a 3 percent increase from 2007.22

**GEORGIA**

Methamphetamine has become the fastest growing drug problem in metropolitan Atlanta and many other parts of Georgia. Although there was a decrease in meth lab seizures from 2004 (261 labs) to 2007 (67 labs), or 74 percent, like other SLC states, lab seizures in Georgia increased for the first time in 2008 (78 labs), a 16 percent rise.24 The state requires sellers of ephedrine to keep the product behind the counter and limits the amount that can be purchased legally. Currently, in addition to pharmacies, ephedrine products may be sold in grocery stores, gas stations, and other retailers. Although retailers are required to record the name and contact information from consumers, there is no requirement that the purchaser present photo identification. In 2010, the state announced the launch of the Georgia Meth Project, a statewide prevention campaign designed to reduce methamphetamine use, which is estimated to cost the state $1.3 billion annually.25 In addition to beefing up law enforcement initiatives, the Project will include expansions in treatment, social services and programs to address lost productivity.26

**KENTUCKY**

Kentucky has instituted a MethCheck electronic monitoring system, a for-profit database contracted by the commonwealth. Kentucky reported that in its first nine months of operation, MethCheck had recorded more than 850,000 sales and blocked more than 13,000 transactions that would have violated state and federal law, equaling approximately 44,000 grams of ephedrine that potentially could have been used to make meth. There was a 49 percent decrease in meth lab seizures from 2004 (571 labs) to 2007 (294 labs), but the commonwealth saw an increase in 2008 (416 labs), a 45 percent increase from 2007.27 Kentucky is partnering with Indiana to expand MethCheck in order to deter individuals from crossing state lines to purchase ephedrine. The expansion will require state and local law enforcement agencies to work with border counties, which contained nearly one-third of all meth labs found in Kentucky in 2008, to adopt local ordinances that require pharmacies to participate in the MethCheck program free of charge for one year. This pilot program is the first time two states have shared electronic ephedrine purchase information on a real time basis. Correspondingly, Indiana state police seized more meth labs in 2009 than any other year after adopting a similar monitoring program as Kentucky.28

**LOUISIANA**

In 2009, the Louisiana Legislature enacted a law that requires ephedrine drugs to be sold only by licensed pharmacies. It also requires pharmacies to enter sales information into a Central Computer Monitoring System that is accessible by sheriffs’ offices and state police officials.29 In 2010, the state enacted a new law establishing a real time ephedrine reporting system, contingent on federal funding. Louisiana experienced a 63 percent drop in meth lab seizures from 2004 (123 labs) to 2007 (46 labs). According to the DEA, the state is one of the few in the region where a continued decline in lab seizures in 2008 occurred.30

**MISSISSIPPI**

According to the DEA, meth is the fastest growing drug threat in Mississippi. In 2005, the state passed a law that
restricts access to ephedrine products and enhances penalties for manufacturing the drug in the presence of children. During the 15 months following the implementation of the legislation, the state saw 168 total meth lab seizures, down from 486 during the 15 months leading up to adoption of the law.\(^\text{31}\)

Mississippi experienced a 41 percent decrease in meth lab seizures from 2004 (267 labs) to 2007 (157 labs). However, in 2008, the state saw a sudden increase in lab seizures (296 labs), an 89 percent increase over the previous year.\(^\text{32}\) In 2009, there were 620 laboratory seizures, more than double the number of seizures in 2008.\(^\text{33}\) The Mississippi Legislature passed a measure in 2010 that requires a doctor’s prescription to buy products containing ephedrine or similar chemicals. The legislation states that medicine containing these drugs only can be dispensed after the buyer produces a physician’s prescription, making Mississippi the second state to adopt such a restriction. Oregon passed a similar law in 2006, and experienced a 96 percent drop in meth lab seizures during the first year it was in effect. Due in large part to these reforms, the state saw an 89 percent decrease in meth lab seizures from 2004 (2,788 labs) to 2007 (303 labs), the greatest decrease of any SLC state. However, in 2008, the state experienced the region’s largest increase in lab seizures (1,471 labs), a 385 percent increase, also the greatest spike in the region.\(^\text{35}\) The General Assembly considered, but did not pass, a law during the 2010 regular session that would have required a doctor’s prescription in order to purchase precursor drug products.\(^\text{36}\)

**NORTH CAROLINA**

In 2006, North Carolina began requiring all medications containing ephedrine to be sold behind a pharmacy counter. In addition, purchasers of these products are required to be 18-years old and show a photo identification card, as well as sign a registry that is kept by the pharmacy. The law limits the amount of ephedrine products an individual can purchase per transaction and during a 30-day period.\(^\text{37}\) In North Carolina, there was a 52 percent decrease in lab seizures from 2004 (318 labs) to 2007 (154 labs). However, like most other SLC states, North Carolina experienced an increase in lab seizures (196 labs) in 2008, a 27 percent increase.\(^\text{38}\)

**OKLAHOMA**

Oklahoma classifies ephedrine as a Schedule V drug under state law and requires purchasers to present photo identification and sign a registry. The state also limits the amount that can be purchased legally during a 30-day period. The Oklahoma Bureau of Narcotics recently created a two-year position for the purpose of combating the resurgence of meth, particularly in rural parts of the
The state is using federal stimulus funds to pay the salary for this methamphetamine coordinator, as are six other states (Arizona, Colorado, Idaho, Kansas, Nevada and New Mexico) selected by the Rural Law Enforcement Methamphetamine Initiative. Oklahoma experienced an 86 percent decline in meth lab seizures from 2004 (659 labs) to 2007 (92 labs), the second largest decline among SLC states. In 2008, the state experienced an 11 percent increase in lab seizures (102 labs) from the previous year.

SOUTH CAROLINA
In 2005, the South Carolina General Assembly made the manufacturing of methamphetamine a “violent crime.” The state operates a Meth Watch program, aimed at educating retailers on the dangers of methamphetamine and the potential misuse of the precursor products sold in stores. Currently, the state does not require that products containing ephedrine be sold only in pharmacies, nor does the state manage a database to collect information pertaining to precursor drug sales. There was a 61 percent drop in meth lab seizures from 2004 (171 labs) to 2007 (67 labs). South Carolina saw a further decline in seizures in 2008 (46 labs), one of the three SLC states to see a continued reduction.

TENNESSEE
Ephedrine products can be sold only in pharmacies in Tennessee. The state requires pharmacies to keep track of all ephedrine product sales, including information about the buyer. A customer must present a photo identification card in order to purchase these products, and that information is entered into an electronic database operated by the Tennessee Methamphetamine Task Force, where it can be shared among pharmacies and police personnel. The system will “red flag” an individual who exceeds legal limits of ephedrine product purchases, even if those purchases are made in multiple pharmacies. A 59 percent decline in meth lab seizures occurred from 2004 (1,327 labs) to 2007 (547 labs). However, the state saw a slight rise in lab seizures from 2007 to 2008 (553 labs), and an even greater increase in seizures (1,437 labs) in 2009, a 160 percent increase from the previous year.

TEXAS
In 2005, the Texas Legislature passed a law that established retail sales guidelines requiring any store carrying ephedrine-based products to place the products behind sales counters or in locked cabinets. The same year, the state passed legislation that limited each customer to six grams (two packages) of these products per month. Also, retailers

<table>
<thead>
<tr>
<th>State</th>
<th>Requires ID to Purchase Ephedrine</th>
<th>Electronic Monitoring System</th>
<th>Meth Task Force</th>
<th>Requires Prescription to Purchase Ephedrine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arkansas</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Florida</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Georgia</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Kentucky</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Louisiana</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mississippi</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Missouri</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Carolina</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oklahoma</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>South Carolina</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Tennessee</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Texas</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virginia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Virginia</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
are required to track purchases by recording the customer’s name and date of birth, both of which must be verified with a photo identification card, as well as purchase date, the product name, and the number of items sold. These records are not entered into a database but are maintained for at least two years after the sale. In addition, the state encourages voluntary action by retailers to reduce illegal sales, such as limiting the quantity that can be purchased or taking measures to prevent theft of ephedrine products. In three years, the state experienced an 83 percent decrease in meth lab seizures, from 452 labs in 2004 to just 79 in 2007. However, in 2008 the state saw a 42 percent increase in lab seizures (112 labs) from the previous year.\textsuperscript{43}

**WEST VIRGINIA**

In 2005, the West Virginia Legislature passed legislation that restricts the amount of ephedrine products that can be purchased at a single time. The state also established stiffer penalties for operating a meth lab with children present. Currently, the state does not operate a database for sharing information regarding precursor drug purchases. A 75 percent decrease in meth lab seizures from 2004 (165 labs) to 2007 (41 labs) was reported, but West Virginia saw a slight increase in 2008 (43 labs).\textsuperscript{45}

**Conclusion**

Overall, there was a 72 percent decrease in methamphetamine lab seizures from 2004 (8,637 labs) to 2007 (2,438 labs) in SLC states. Likewise, the nation as a whole saw a significant decrease in meth lab seizures during that same time, from 17,170 seizures in 2004 to 5,910 in 2007, a drop of 66 percent. However, SLC states experienced a significant increase in lab busts from 2007 to 2008 (4,113 labs), a 69 percent increase, much greater than the national increase of 15 percent the same year.

A regional approach for coordinating information pertaining to ephedrine sales, such as the partnership undertak-
en by Kentucky and Indiana, is an effective technique for combating the rise in methamphetamine production and distribution. Conversely, the efforts of states that employ monitoring systems for pharmacies and law enforcement personnel may be less effective due to bordering states that lack such programs. For instance, although Tennessee maintains a statewide monitoring computer database, no such system exists in Georgia, where tracking is carried out by individual pharmacies. While ephedrine products can be sold only as behind-the-counter products in pharmacies in Tennessee, gas stations and other stores in Georgia can sell these restricted products. Like Tennessee, Georgia collects buyer information, but the customer provides the identifying information, and there is no guarantee the information provided is accurate or true; in Tennessee, a photo identification card is required. For this reason, the restrictions on the allowable amount of ephedrine purchased in Georgia can easily be circumvented, which means that Georgia counties that border Tennessee are ideal hubs for smurfers to gather precursor drugs, easily returning to Tennessee to produce and/or distribute the product. Tennessee’s Methamphetamine Task Force is working with Georgia officials to produce a system to link the two states’ computer databases, although stores and pharmacies are not required by law to provide the information.

States outside the region have experimented with other methods of combating methamphetamine production. For instance, in addition to cracking down on ephedrine purchasing, Iowa has attempted to limit access to anhydrous ammonia, a primary ingredient in a production method common in agricultural states, where the chemical is routinely used as a fertilizer. In Iowa, more than 90 percent of all meth laboratories use this process. A $1.2 million national research project at Iowa State University, and confirmed by the DEA’s forensics labs, found that meth operations attempting to use anhydrous ammonia that has a calcium nitrate inhibitor added to it generally extract only 2 percent of ephedrine for conversion to meth, as opposed to an approximate 42 percent yield for production methods without the inhibitor. The inhibitor also reduces the purity of any amount of the drug that is produced from the ephedrine extraction. Additionally, calcium nitrate is a common fertilizer compound used primarily for horticulture. It is non-toxic, safe for food supplies, and has no adverse impact on the environment or farm equipment. The chemical reaction between calcium nitrate and anhydrous ammonia that causes the decrease in ephedrine production actually continues even if more ammonia is added. In other words, if producers add more treated ammonia to the recipe in order to defeat the inhibitor, even less meth will be produced. The inhibitor currently is used on a voluntary basis in Iowa, but agriculture retailers who participate in the program receive the formula, along with signage for placement on their tanks, which could help dissuade potential users.46

Such innovative programs can help states move forward in combating this dangerous drug. There appears to be no slowing down of the meth epidemic, and states must be poised to make critical decisions regarding prevention, education, enforcement, treatment and rehabilitation. A “one-size-fits-all” approach is not necessarily prudent, since it is unlikely what works in one state will induce the same results in another. However, states can learn from one another and work across jurisdictional lines in new ways, so that together they might begin to address the most hazardous and perilous drug epidemic the South has ever experienced.

Previous SLC Research on Meth in the South

The 2001 SLC Regional Resource, Methamphetamine Production and Abuse in Southern States, examined the resurgence of methamphetamine use and production in the South. Similar to today, lost productivity and treatment costs threatened to consume large portions of state budgets at a time when many states’ revenue projections were falling short, and the cost associated with treatment and the likely prospect of recidivism created a costly and recurring expenditure for already constrained state budgets. The publication also provided an in-depth analysis of the effect of methamphetamine in Arkansas, Missouri, Oklahoma and Texas, where methamphetamine abuse was most pronounced. Although meth abuse and production were increasing in many areas of the South and had yet to reach others, hard-hit states demonstrated that they were able to take appropriate measures to fight the meth scourge, especially by sharing information across their jurisdictions.
Endnotes

6. Ibid.
7. Ibid.
12. Ibid, 12.
15. Ibid, 12.
17. Ibid.
18. Ibid.
20. Hunt, 12.
24. Ibid.
27. Hunt, 30.
30. Hunt, 40.
32. Hunt, 35.
35. Hunt, 12.
38. Ibid.
40. Hunt, 42.
41. Ibid.
42. Ibid.
43. Ibid, 47.
44. Ibid, 48.
45. Ibid.
The Southern Legislative Conference (SLC) has been tracking the issue of crystal methamphetamine production, distribution and use for almost a decade. In 2001, the SLC published a report, *Methamphetamine Production and Abuse in Southern States*, which examined the rise in popularity of the drug from the early- to mid-1980s and assessed its impacts on Southern states. It concluded that “methamphetamine has taken hold across the South and Midwest. It has become a particularly pernicious and perplexing problem in states such as Arkansas, Missouri, Oklahoma and Texas, but policymakers are confronted with a potential increase in the production and use of methamphetamine across the South.” These concerns were not unfounded. Meth has become one of the most dangerous illegal substances in Southern states, and almost every SLC state is seeing annual increases in meth laboratory seizures. According to the DEA, meth labs are, by far, the most common clandestine laboratories in the United States.

This 2010 SLC *Regional Resource* examines the health, public safety, environmental, sociological and economic effects that crystal methamphetamine continues to have on Southern states. From 2004 to 2007, as a result of stricter ephedrine-purchasing laws throughout the region, Southern states saw a steady decline in meth lab seizures, which amounted to a 75 percent reduction over the three-year period. However, in 2008, those seizure rates began to rise again, averaging an almost 70 percent increase across the region in just one year, a far greater rate than the rest of the nation. Almost every SLC state has passed laws that address this most recent resurgence in crystal meth. In 2010, Mississippi became just the second state in the nation to pass a law requiring a physician’s prescription to purchase ephedrine products. This report demonstrates the advantages of stiffening ephedrine purchasing laws, such as requiring a prescription or a photo ID, or limiting the amount of the product that can be purchased during a certain period of time; examines the use of monitoring systems for tracking ephedrine product purchases; assesses the effectiveness of interstate cooperation and data sharing; and provides information on how states can continue to address the revival of this terrible drug.