

**CONTROLLING METHAMPHETAMINE
PRECURSORS EPHEDRINE AND
PSEUDOEPHEDRINE:
A BRIEF HISTORY OF CONTROLS AND
CURRENT INITIATIVES**

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INTRODUCTION

Over the last several decades domestic production of methamphetamine has wreaked havoc across the Southern, Western and Midwestern United States. In addition to posing a significant threat to the public well-being because of laboratory explosions, drug endangered children, and numerous environmental hazards, methamphetamine laboratories have become significant drains on the resources of federal, state, and local governments.

For these reasons, states and the federal government have been adopting policies to curb domestic production of methamphetamine by taking aim at the drug's main precursor chemicals, ephedrine and pseudoephedrine. Both chemicals are decongestants used as an active ingredient in a number of over the counter cold medications, and have been found to be effective in providing relief to cold and allergy sufferers. The problem with these chemicals, however, is that they have similar chemical structures to methamphetamine, and can easily be turned into methamphetamine through a simple multi-step cooking process that involves other, easily found, household chemicals.

From 1989 through 2006 Congress adopted a series of laws that attempted to control ephedrine and pseudoephedrine. The thought was that a supply side approach aimed at limiting the availability of and access to ingredients that are crucial in the methamphetamine production process could significantly limit production of the drug. During this period, each law adopted by Congress was progressively more restrictive than the last, and was often an attempt to close a loop hole in a previous law that allowed drug dealers to still obtain the chemicals with relative ease.

When examining the effectiveness of these laws, Steve Suo of the Oregonian found that nearly every time new restrictions were put into place methamphetamine purity on the streets dropped.¹ Reduction in purity is an indication that at least for a time, these laws were effective at making it difficult to obtain the necessary ingredients to produce the drug. When methamphetamine manufacturers are not able to obtain the necessary ingredients, drug dealers are forced to dilute their supply with other substances, and the cost of "getting high" increases. Several researchers also examined the effectiveness of these laws, and found that declines in hospital admissions², admissions for treatment³, and methamphetamine related arrests⁴ were all associated with the enactment of at least one or several of these laws. Over the long term loop holes were eventually exploited by criminals, and this initial success was always short lived. This short term success does suggest that a comprehensive policy that can successfully limit access to these chemicals can have a positive impact.

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CONGRESSIONAL ACTIONS AND RESULTS

When creating policy for controlling these chemicals, policy makers have traditionally sought balance between the two viewpoints of concerned parties. On the one hand, there is a need to control the chemicals and limit their use in creating methamphetamine; on the other hand, there is a need to protect the rights of consumers seeking access to extremely effective cold and allergy medication. As a result of this quest for balance, laws enacted by Congress that have sought to control ephedrine and pseudoephedrine have often taken a measured approach, and after fierce policy debate, have typically been the result of compromise between advocates representing each viewpoint. Advocates for control of the chemicals frequently contended that these compromises had not gone far enough to control the problem and often predicted that the problem would resurge unless further steps were taken. Advocates for consumer access have strongly opposed any sweeping legislation that might unnecessarily restrict consumer access to very effective cold and allergy medication.

In 1989 Congress passed the Chemical Diversion and Trafficking Act; the first law in a series of legislative compromises that attempted to control the chemicals. The law required companies and individuals that sold ephedrine and pseudoephedrine in unfinished powder form to report such sales to the DEA. Originally, advocates from the DEA had wanted all transactions of ephedrine and pseudoephedrine, “from factory to final use”, to be reported to the government.⁵ In 1986 Senate Majority Leader Bob Dole put this request into legislation as an amendment to an Omnibus House Drug Bill. This reporting requirement was opposed by the Proprietary Association (a trade association that represented over the counter drug manufacturers), and the association quickly went to work to stop the enactment of the reporting provisions of the law. Lobbyists from the Proprietary Association met with Senator Dole’s staffers. One lobbyist even recalls telling a Dole aide that if the proposal were to become law it would make “this product illegal.”⁶ The meeting proved to be successful in delaying reporting requirements as the version of the bill that was signed into law was changed to require DEA to study the issue and report back to Congress.

After successfully delaying the enactment of reporting requirements, lobbyists from the Proprietary Association turned their attention to the DEA in an attempt to express their concerns that strict reporting requirements would hurt legitimate consumer access to ephedrine and pseudoephedrine. According to the lobbyists, DEA was not initially responsive to requests for meetings from the association. However, friends of the association who worked in the Reagan White House arranged for a meeting between DEA and the Proprietary Association. One of the lobbyists reported that after the meeting, “. . . we had useful negotiations with the DEA.”⁷

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In 1987, Attorney General Edwin Meese returned to Congress with a proposal for a new ephedrine and pseudoephedrine law. The proposed law had one significant exemption; all sales of ephedrine and pseudoephedrine in a finished form, such as cold or diet pills, were exempted from reporting requirements.⁸ It was thought that the ability to track bulk sales of ephedrine powder would at least limit large scale production of methamphetamine. Several advocates for greater control warned Congress that ephedrine and pseudoephedrine could still be extracted from finished pills, thus leaving a loop hole for drug dealers to still obtain the chemicals without a paper trail.⁹ Initially, the legislation did have some success. Overall, methamphetamine purity on the streets dropped¹⁰, and there was also a reduction in a number of other problems such as methamphetamine related arrests,¹¹ and emergency room visits attributed to methamphetamine use¹². Over time, however, methamphetamine manufacturers began to turn to ephedrine in finished form, just as Congress had been warned.¹³

In response, Congress passed new legislation in 1993, the Domestic Chemical Diversion Control Act, that required sellers of ephedrine tablets to begin reporting individual sales of the drug. Again compromise was required to pass the legislation. To overcome opposition from industry advocates, pseudoephedrine was left unregulated despite concerns that it could easily take the place of ephedrine in the methamphetamine manufacturing process.¹⁴ Again, the policy had an initial positive impact as methamphetamine purity dropped¹⁵, but over time, and as predicted, methamphetamine dealers began turning to pseudoephedrine to make their drugs.

In 1995, Senator Diane Feinstein (CA) began pushing for regulation of pseudoephedrine. The Senator's initial bill called for harsh penalties for companies whose products were repeatedly found in meth labs. After three strikes DEA would have been allowed to shut the companies down. Senator Feinstein's proposal did not go far in the legislative process because a compromise deal was struck once again. The bill that eventually passed both Chambers targeted bulk sales of pseudoephedrine, and required manufacturers and wholesale distributors to get DEA licenses and keep records if they sold more than 400 tablets of pseudoephedrine in one sale. There was one significant exemption; pseudoephedrine pills sold in blister packs would not be subject to record keeping requirements. It was thought that because blister packs took more time to empty than bottles they would not be as desirable to drug dealers.¹⁶ According to a 2009 study conducted by Carlos Dobkin and Nancy Nicosia, the 1995 legislation, combined with a stronger enforcement effort, was also temporarily successful:

“The price of methamphetamine tripled and purity declined from 90 percent to 20 percent. Simultaneously, amphetamine related hospital and treatment admissions dropped 50 percent and 35 percent, respectively. Methamphetamine use among arrestees declined 55 percent. Although felony methamphetamine arrests fell 50 percent, there is no evidence of

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substantial reductions in property or violent crime. The impact was largely temporary. The price returned to its original level within four months; purity, hospital admissions, treatment admissions, and arrests approached preintervention levels within eighteen months.”¹⁷

As mentioned by the study, meth cooks adapted again. According to the DEA, blister packs were found in 47% of meth labs seized in 1999 and 2000.¹⁸

In 2005 with the methamphetamine problem growing again, Congress took further steps to regulate the chemicals by taking to date the most comprehensive national approach on individual sales of medications that contained the chemicals. The Combat Methamphetamine Act (CMEA), which was again updated in 2006, placed a number of restrictions on the sale of ephedrine and pseudoephedrine. Some of the most significant restrictions were: prohibiting individuals from purchasing more than 3.6 grams in a 24 hour period, or 9 grams in a 30 day period; requiring that all products containing these ingredients be kept behind a pharmacy counter or locked in a cabinet in such a way to restrict public access; verifying the identity of all purchasers; and finally requiring retailers to maintain a record of the name and address of all individuals purchasing these products for at least two years.

Congress is seeking once more to refine precursor chemical controls. Currently under discussion, the Combat Methamphetamine Enhancement Act of 2010 would amend the Federal Controlled Substances Act. The suggested changes would, among other actions, address certification requirements of regulated retail sellers and mail order distributors.

STATE APPROACHES TO CONTROLLING THE PROBLEM

Prior to passage of the CMEA Oklahoma led the way for states to begin taking additional steps to further control sales of these chemicals. In 2004, Oklahoma was the first state to implement point of sale restrictions,¹⁹ and the state took initiative again in 2006, when it became the first to implement a statewide methamphetamine precursor tracking system.

Electronic tracking systems require all sales of ephedrine and pseudoephedrine to be reported to a database. The information required to be reported varies by state, but states typically require retailers to report the name, address, and other identifying information of the purchaser. The database then keeps a record of all sales of ephedrine or pseudoephedrine and can be used to determine if an individual has purchased an amount that exceeds the legal limit.

Another, more limiting approach, has been adopted by Oregon and Mississippi. These two states have made ephedrine and pseudoephedrine available by prescription only.

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At this point, states with significant methamphetamine problems seem to be focusing discussions on these two solutions. While both approaches initially led to success in reducing the number of methamphetamine laboratories (see tables below) in the states in which they were implemented, several states with tracking programs have seen a rise in the number of laboratory seizures since 2009. In contrast, the rates of laboratory seizures in Oregon (the only state in which the prescription only approach has been implemented long enough to see results) have continued a steady decline.

Laboratory Seizure Rates for a Selected Sample of States with Tracking Programs²⁰

(Authorizing legislation was approved during the years seizure numbers are in boldface).

	Arizona Lead Generating	Arkansas Stop Sale	California Lead Generating	Kentucky Stop Sale	Oklahoma Stop Sale	Tennessee Lead Generating
2004	127	828	789	604	699	1,497
2005	74	490	463	590	240	955
2006	40	403	416	328	199	811
2007	15	333	279	302	93	560
2008	10	346	352	427	134	582
2009	10	480	264	705	394	595
2010	5	482	186	1,049	485	1,199

EPIC Methamphetamine Laboratory Seizure Statistics: Oregon

	Total
2001	584
2002	423
2003	372
2004	425
2005 (Prescription only legislation became law in August)	130
2006	56
2007	23
2008	19
2009	12
2010	9

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Types of Tracking Systems

Currently, there are two types of tracking systems. One is known as a stop sale system, and the other is a lead-generating system. The more preventative system is the stop sale system which actually generates a stop sale alert if the sale would violate state or federal law. The stop sale alert informs the seller that the sale must be stopped to prevent a violation of the law, and allows the seller to override the alert if specific conditions are met (typically a seller must feel as though he or she is under a threat of violence to override the alert). In a lead generating system all sales are completed. Information from the sale is then submitted to the database and analyzed at a later point to determine if there has been a violation of the law.

Possible Reasons for the Rise in Laboratory Activity in States with Tracking Systems

Smurfing

Sometimes methamphetamine producers are able to limit the effectiveness of tracking programs through a process known as smurfing. Smurfing occurs when one person or several people purchase the legal amount of pseudoephedrine or ephedrine at multiple stores and eventually aggregate the purchases to create a batch of methamphetamine. The National Methamphetamine Pharmaceutical Initiative (NMPI), a group of law enforcement officials who advocate for a prescription only approach, believes that “smurfing is at epidemic proportions across the country.” The organization claims that smurfing has become a lucrative business for well organized groups who can sell \$7 boxes of pseudoephedrine for as much \$80. Although some states do not have a large number of laboratory seizures numbers, precursors can be shipped out of a state and used by Drug Trafficking Organizations (DTOs) in super labs in other states, thus creating a national problem.²¹ According to the 2009 National Methamphetamine Threat Assessment, the increase in domestic methamphetamine production can largely be attributed to smurfing.²²

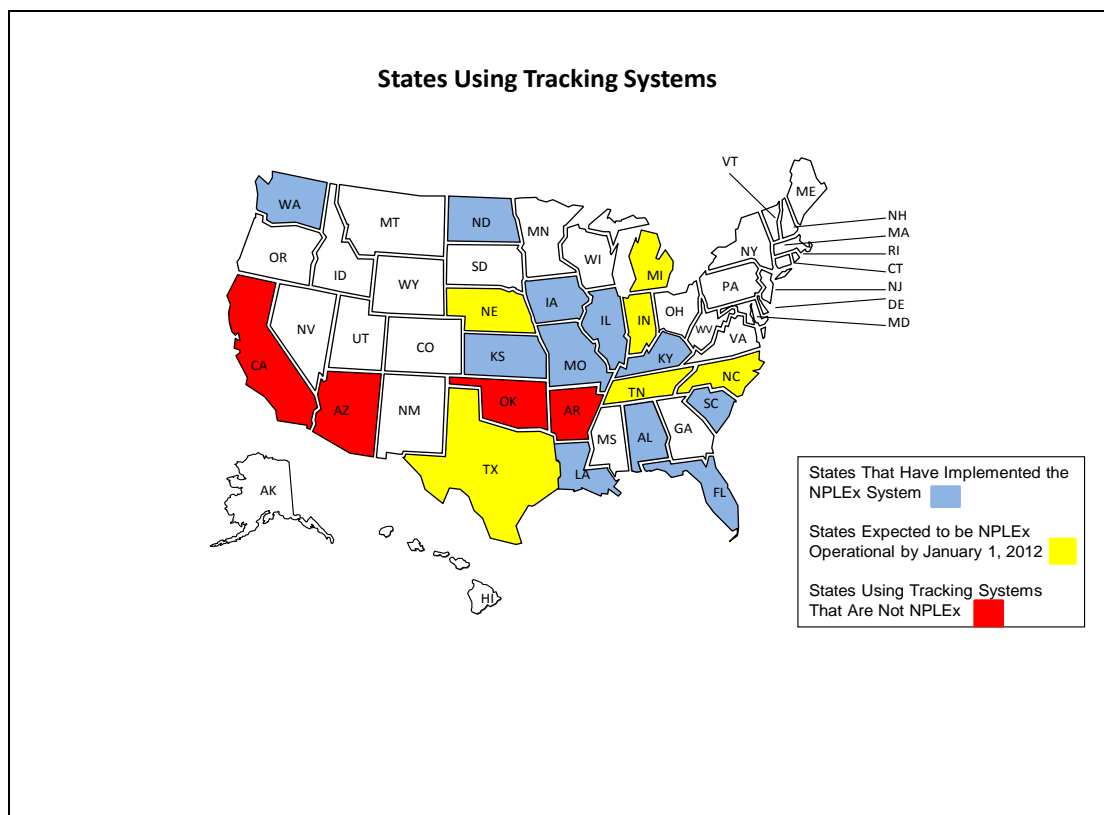
Currently, there are multiple methods of smurfing. The simplest method involves one individual visiting several stores within the same state and purchasing the maximum amount allowed by law during each visit. Ideally, a stop sale tracking system would prevent this method before it occurs. A stop sale system would alert the seller that there has been a violation and the sale would be stopped. A lead generating system would not stop the sale, but would produce an electronic record of the transactions that could be analyzed at a later date. This would allow law enforcement to follow leads pursuant to potential violations of the law.

Another method involves visiting multiple states to purchase ephedrine or pseudoephedrine. This method may sometimes be more effective and less risky for criminal

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activity as a number of states do not have electronic tracking systems. States with tracking systems did not initially have those systems linked. This lack of connection may also have allowed this smurfing method to be more successful. In recent years, there has been an attempt by the Consumer Healthcare Products Association (CHPA) to limit this type of smurfing by developing and paying for the National Precursor Log Exchange (NPLEx) to link state tracking systems. (The Proprietary Association became known as CHPA in 1999. It is a trade association that represents over the counter drug manufacturers, and opposes making ephedrine and pseudoephedrine available by prescription only.)

According to CHPA, NPLEx is currently in place or is in the process of being implemented in Alabama, Florida, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Missouri, Nebraska, North Carolina, North Dakota, South Carolina, Tennessee, Texas, and Washington.²³ This system may have the potential to limit interstate smurfing. The states that border one another should be monitored to determine if the system has a positive impact in reducing the number of methamphetamine laboratory seizures in these states.



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The other three methods of smurfing completely circumvent the preventative ability of tracking systems. Sometimes individuals use multiple or fake identifications to purchase these chemicals.²⁴ A dealer or producer may pay multiple individuals to use their identifications to purchase the maximum amount of pseudoephedrine or ephedrine, as was recently reported in a case in California.²⁵ Some states have also experienced problems with employer collusion.²⁶ Again, while a paper trail is produced that could aid in a prosecution, the preventative capability of tracking systems is limited by this method of smurfing.

Shake and Bake/One Pot Meth Production

Through mostly anecdotal evidence, it appears one of the greatest contributing factors to the rise in methamphetamine lab activity in states with tracking programs is the recent popularity of a new low yield production method, often referred to as the “shake and bake” or “one pot” method.²⁷ This method requires less ephedrine or pseudoephedrine and ingredients are often mixed in a small container like a two liter bottle. According to the NMPI, the shake and bake method can produce around two ounces of methamphetamine and does not require purchasing an amount of the chemicals over the legal limit.²⁸ When combined with group smurfing activity, this method has the potential to be effective for drug dealers. NMPI also believes that manufacturers of methamphetamine could potentially use this method once or twice per buyer of ephedrine or pseudoephedrine in a 30 day period, while staying under the legal limit.²⁹ This method has also simplified the process and now allows individuals to make their own drugs, thus having the potential to increase the number of people making methamphetamine.³⁰ This could be one possible explanation for the sudden rise of methamphetamine laboratories in states that previously saw reductions after tracking systems had been implemented. Tracking systems may be effective at reducing large laboratories, but ineffective at preventing smaller scale production.

In Tennessee, it has been estimated that nearly 65% of methamphetamine laboratory seizures are now due to the shake and bake method³¹. Law enforcement officials in other tracking states, like Oklahoma³² and Kentucky³³, have also reported a rise in this type of laboratory activity and cite this method as one of the causes for the rise in laboratory seizures in their states.

If tracking programs cannot reduce smaller scale laboratory activity, it will be necessary for policy makers pondering the adoption of such a program to consider whether such laboratories are just as dangerous as large laboratories. CHPA has claimed that because “shake and bake” laboratories are smaller than traditional laboratories, they are also less dangerous.³⁴ This theory could be plausible as mixing larger batches of methamphetamine may have the potential to create larger explosions, and leave lingering chemical residue in the space where it

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was manufactured. The residue could in turn cause harm to people who inhabit the space after the methamphetamine was made.

It should be noted, however, that although shake and bake laboratories are smaller, they may not necessarily reduce the health and environmental risks associated with methamphetamine production. If opened incorrectly, or if there is oxygen in a bottle, the two liter bottle could create an explosion which could intensely burn the individual opening the bottle, or individuals who are near a bottle that is being opened.³⁵ Shake and bake explosions also pose an environmental threat as they have been linked to over a dozen flash fires in Alabama and Oklahoma in the past year, some which have been fatal.³⁶ Additionally, the two liter bottles used to mix the batches of methamphetamine are often discarded as litter and can be found along the side of a road. After being used to make methamphetamine the bottles are left with poisonous residue and have the potential to be environmental hazards. A bottle can also cause harm to an individual who picks it up after it has been discarded.³⁷ Finally, the fact that this method requires more laboratories for creation of the drug could also potentially harm more people. In other words, more laboratories increase the likelihood of accidents for manufacturers or of an innocent individual coming into contact with these laboratories.

It should be taken into consideration that the shake and bake method, when viewed purely in terms of the number of laboratories seized, may have a tendency to inflate the problem. With this method, methamphetamine laboratories are no longer a physical space, such as a trailer or a home, where ingredients are mixed and several batches of methamphetamine are created over a period of time. Methamphetamine laboratories have instead become a two liter bottle that can be used once to produce a small amount of methamphetamine, and then discarded. This could increase the actual number of laboratories needed to make methamphetamine, while not necessarily increasing the actual amount of methamphetamine produced.

Policy makers considering the adoption of a tracking system will need to understand that it is possible that methamphetamine production will continue with the shake and bake method if a tracking system is implemented. They will also need to understand the health and environmental threats such a method of production poses to their communities. Policy makers will need to assess if the smaller scale laboratories really do create less of a health risk than the larger laboratories. Finally, they will need to consider if a tracking system is the proper balance to strike between consumer access and the need to prevent methamphetamine production. Oregon has not yet reported any problems with the shake and bake method of production.

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Increase in Laboratory Busts

Another possible explanation for the rise in methamphetamine laboratory seizures is that the tracking systems are actually effective. CHPA has postulated that the tracking programs are creating more leads for law enforcement and making it easier to enforce purchase limits. Those leads are then leading police to laboratories that would otherwise go undetected.³⁸ This, however, seems to be contrary to the data as it does not explain why there was a decrease in laboratories in the years immediately following the implementation of tracking systems, and why the increase did not begin until 2009.

Oregon and the Prescription Only Approach

Since implementation of the prescription only policy, Oregon has had continued success in reducing its number of methamphetamine laboratory seizures.³⁹ While this success stands in contrast to the rising number of methamphetamine laboratories in states with tracking programs, there are several factors to consider when adopting this policy. First, the policy is not without potential drawbacks and may negatively impact consumer access to effective cold and allergy medication. Second, one must take into account that Oregon is only one state, and these results have not yet been duplicated in another state. (While Mississippi has shown some early success with the policy, the policy is still relatively new to have experienced time tested results). It is possible that Oregon may have a unique set of geographic circumstances that have led to this result, and to date, analysis has not been conducted to control for other factors that may have led to the reduction in laboratories. Finally, one must consider the overall effect the policy has had on methamphetamine use, and the social consequences associated with use of the drug.

Consumer Access

CHPA contends that pseudoephedrine is the only oral decongestant that works for many consumers, and that over 16 million Americans rely on pseudoephedrine over other medications⁴⁰. If pseudoephedrine and ephedrine are made available by prescription only, those consumers, along with those who rely on ephedrine, will be forced to turn to alternative drugs that may be less effective, or will face additional hurdles to obtain their medication of choice.

Among the potentially negative consequences associated with the prescription only approach is an increase in cost to consumers. It has been hypothesized that by making ephedrine and pseudoephedrine available by prescription only, the prices of medications that contain these chemicals would increase significantly. Obtaining such medications would no longer be a simple trip to the drug store, but would now require a trip to a doctor, time off from work, the cost of a prescription drug, and an additional payment to a physician for services rendered. These additional hurdles may increase the amount of money paid by consumers, and would

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likely result in lost time and production at work. Furthermore, health insurers, including state run Medicare and Medicaid programs, could possibly begin incurring co-pay costs for a drug that was previously sold over the counter. According to a CHPA assessment of the recently passed prescription only bill in Mississippi, if only half of Mississippians who use ephedrine or pseudoephedrine visit a doctor to obtain a prescription, an increase of more than \$7 million would be incurred by the “healthcare system”.⁴¹ (It was not clear from the press release what healthcare system refers to exactly).

Legislators considering the prescription only policy should also consider the impact the policy will have on consumers who lack health insurance. A trip to the doctor’s office and a prescription drug has the potential to be a heavy financial burden for those consumers.

To counter CHPA’s claims regarding cost, NMPI has asserted that the cost of pseudoephedrine has actually gone down since becoming a prescription only drug because generic versions of drugs containing pseudoephedrine have become available.⁴² The group also claims that the fiscal impact on Medicaid in Oregon has totaled less than \$8,000 a year, and that the prescription only policy has offset this cost by resulting in fewer methamphetamine laboratory clean-ups, lower investigation costs, lower social service costs, and a reduction in incarceration costs.⁴³

NMPI has also stated that alternatives to ephedrine and pseudoephedrine are just as suitable for treating the symptoms of allergy sufferers, but several studies seem to contradict this claim. A 2007 review of 8 studies that involved 138 patients, found that phenylephrine, (one of the more popular alternatives to pseudoephedrine), at 10 mg, (the maximum amount allowed for over the counter sales by FDA), did not reduce nasal airway resistance (NAR) in patients with nasal congestion more than a placebo. At a higher dosage (25 mg) the drug was found to be effective. However, medications with higher dosages of phenylephrine are not currently approved for over the counter sales.⁴⁴ Loratadine, another pseudoephedrine alternative, was shown to be more effective than phenylephrine, but was found to be most effective when combined with pseudoephedrine.⁴⁵ While there are several other alternatives for treating cold and allergy symptoms, many consumers seem to rely on pseudoephedrine exclusively. Policy makers will need to consider the impact a prescription only policy may have on such consumers.

Possibility of Unique Geographic Factors

Although Oregon has experienced success in reducing the number of laboratories seized in the state, complete research has not been conducted to rule out other possible causes for the reduction in laboratory activity. The prescription only strategy has only been implemented in one state long enough to see results. It is possible that a unique set of geographic circumstances

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has contributed to Oregon's success and that this solution would not be effective in all jurisdictions.

Washington, a state that shares Oregon's northern border, has also seen a general decline in the number of methamphetamine laboratories seized in the state.

Methamphetamine Lab Seizures in Oregon and Washington⁴⁶

Year	Oregon	Washington
2004	467	944
2005	190	546
2006	50	337
2007	21	238
2008	19	127
2009	12	72
2010	12	44

In 2005, Washington passed legislation to implement a statewide pilot program that required records of ephedrine and pseudoephedrine sales to be transmitted upon request. After 2005, the number of laboratories in Washington decreased at a rate consistent with states that implemented tracking programs, but unlike other states, laboratory numbers in Washington did not increase. It is possible Washington is benefitting from an Oregon policy that would make it difficult to conduct cross border smurfing. However, it is also possible that some condition that is unique to the Northwestern United States has contributed to the reduction in laboratories.

It should be noted, however, that there has been some dispute about Washington's 2009 total. In a statement released by CHPA, the organization claimed that there were only 39 laboratories seized in 2009.⁴⁷ CHPA's source for this claim was the El Paso Intelligence Center (EPIC), but the number reported by CHPA was not entirely accurate as it relied on early reporting from Washington to EPIC, and was not a total for the entire year.⁴⁸ EPIC's reported total for Washington in 2009 was 72,⁴⁹ which still represents a decrease from 2009. While EPIC's final total would still validate CHPA's claim that the trend in decreasing laboratories was continuing, the Washington Department of Ecology reported that there were a total of 186 laboratory seizures in 2009,⁵⁰ which represents an increase from the previous year. If the numbers in Washington had increased from the previous years, it might be an indication Washington is following the trend of other tracking states, and is not continuing its decline. The

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discrepancies in numbers could be due to differences in reporting methods, but the lack of uniform reporting, or one relied upon source, makes accurate analysis difficult.

Smuggling

One possible explanation for the reduction of methamphetamine laboratories in Oregon is that Mexican Drug Trafficking Organizations are smuggling the drug into the state. It has been reported anecdotally that since the prescription only law was implemented, cartels have increased the amount of methamphetamine imported into the state. Because the cartels have increased their supply, it is possible the prescription only solution is working in Oregon because Mexican cartels have filled the demands of the market.⁵¹ In other words, if the cartels had not increased their supply to the region, others could have seen an opportunity to profit by diverting ephedrine or pseudoephedrine to make methamphetamine. The prescription only law, in combination with the cartels, may create a situation where it is simply too much work with too little reward to attempt to provide additional supply to an already saturated market. While this would prove to be a successful combination in reducing methamphetamine laboratories, it may not necessarily reduce methamphetamine use. This may result in a strategy where one must pick his poison: meth labs or cartels.

While such a conclusion is based upon anecdotes and conjecture, and is not supported by statistical evidence, it serves as an example of one possibility that has not been controlled for when testing the effectiveness of this policy. As CHPA points out, prescription drugs are the second most abused drugs in the United States, and making the chemicals available by prescription only may not solve the problem as diversion may still occur.⁵² Although NMPI can show that there has not been a single case of pseudoephedrine diversion in Oregon or Mississippi to date,⁵³ it is possible that an intervening variable, like smuggling, is reducing motive for diversion. If one truly wishes to understand the complete cause for the reduction in laboratories, this explanation and several other possibilities should be examined to gain a comprehensive understanding of the possible consequences of this policy.

Possible Effect of Oregon's Pseudoephedrine Laws on Methamphetamine Use

There are several indicators that may suggest methamphetamine use has begun to decrease in the state, but at this point, the picture is not entirely clear. According to the Oregon Health Authority, treatment admissions for methamphetamine as a primary substance have decreased by 20% since 2005.⁵⁴ However, the Health Authority does not necessarily attribute this decline to the prescription only policy, and has also stated that the state has continued to lead the nation in methamphetamine-treatment admissions per 100,000 people for the last decade; and that treatment admissions for methamphetamine are second only to those for alcohol.⁵⁵

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Some officials in Oregon have also pointed to a decrease in the state's crime rate as evidence for decreased methamphetamine use.⁵⁶ In 2009, Oregon's crime rate dropped to its lowest level since 1969, and while officials have cited several reasons for the decrease, including an aging population, most agree the state's pseudoephedrine laws have had an impact.⁵⁷ The drop in crime does follow a national trend, but between 2000 and 2005, the five years that preceded Oregon's pseudoephedrine law, crime rates held steady, or increased slightly, while the average crime rate of the United States decreased significantly.⁵⁸ After 2005 there was a remarkable drop in Oregon's overall crime rate.⁵⁹ Furthermore, between 2004 and 2008, property crime (the type of crime most associated with methamphetamine users) dropped by 29%.⁶⁰ While there certainly does appear to be a correlation, studies will have to examine the decrease to rule out other possible causes.

Another factor that could be examined is the number of Emergency Room (ER) visits related to methamphetamine use. A short term study released in 2010 compared ER visits in Oregon between a pre-legislation period (February 5, 2006 through June 30, 2006), and a post legislation period (July 1, 2006 through February 5, 2007). The study found an association (not necessarily a causal link) between the pseudoephedrine law and a decrease in the number of ER visits due to methamphetamine abuse. During the pre-legislation period, methamphetamine related ER visits averaged 18 per week, and during the post legislation period, average methamphetamine related ER visits fell to 11.3 per week.⁶¹ While serving as a useful starting point, the study examines a very short period of time immediately before and after the law's implementation. It is possible that with increased smuggling in the state methamphetamine use only decreased for a short period of time, and that the number of ER visits has risen to previous levels. It is also possible that the reported decreased potency of smuggled methamphetamine has resulted in a similar long term trend. Further study should be conducted to determine if this is a long term effect or if this was only the case in the short term.

Despite some of the positive evidence presented above, there is still at least one significant number that would contradict the theory that methamphetamine use has decreased in Oregon. Since the prescription only implementation in 2005, the number of deaths attributed to methamphetamine has fluctuated, and actually increased in 2010.⁶²

Deaths in Oregon Related to Methamphetamine Use⁶³

Year	Deaths
2002	65
2003	78
2004	78
2005	86
2006	90
2007	73
2008	106
2009	87
2010	106

Further study should be conducted to understand the complete impact the prescription only policy has had on methamphetamine use. Although the policy does appear to be tied to a decrease in domestic production of the drug, it is not fully understood if the drug has had a significant effect on methamphetamine use as a whole.

Early Successes in Mississippi

There is very little early data on methamphetamine laboratory seizures in Mississippi. According to Governor Haley Barbour's state of the state address, Mississippi is reporting early signs of positive results. From July 1 to December 31, 2010 there were 68 percent fewer methamphetamine laboratory reports; methamphetamine arrests have decreased 62 percent; and the number of drug endangered children has fallen 76 percent.⁶⁴

CONCLUSION

While it may not be possible to stop domestic production of methamphetamine completely, evidence from previous attempts to control ephedrine and pseudoephedrine would suggest that such a policy has the potential to significantly limit the problem. Any policy attempting to do this would have to be comprehensive, and would have to significantly limit access to these chemicals in all forms. History has shown that drug dealers will work around restrictions that only partially limit access.

As states move forward and consider adopting either the prescription only policy or a tracking system, both the positive and negative consequences associated with each must be considered. If adopting a tracking system, states will need to understand that smurfing is currently a significant threat, and is undermining a number of systems already in place.

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Policy makers will also need to consider the fact that shake and bake labs seem to be increasing the number of methamphetamine laboratories found in states with tracking systems. In certain jurisdictions, however, the tracking approach may strike the right balance between the need for controlling the chemicals and ensuring consumer access to ephedrine and pseudoephedrine.

If adopting a prescription only policy, states will need to consider the potential drawbacks with this solution as well. Policy makers will need to understand if this solution will create burdensome and unnecessary problems for consumers who rely on these chemicals to provide relief from colds and allergies. They will also need to understand that although Oregon has successfully reduced laboratory numbers⁶⁵, these results may not be duplicated everywhere. It is possible that a unique set of geographic circumstances has contributed to Oregon's success.

Finally, any state considering implementation of either of these policies should understand that neither may be a cure for the methamphetamine problem completely. As reported before, smuggling remains a problem in Oregon, and people are still using methamphetamine. Smuggling may be reduced in years to come due to Mexico's recent ban on ephedrine and pseudoephedrine, but there have been reports that cartels have been smuggling pseudoephedrine from China and India.⁶⁶ Cartels also appear to making methamphetamine through a method known as P2P which produces a less potent form of the drug, but does not require pseudoephedrine for production⁶⁷.

Even if neither policy reduces methamphetamine use, but instead limits domestic production of the drug, either policy may still be worthwhile for a state to adopt as domestic production of the drug brings about a unique set of problems. With domestic production states have seen problems with fires, drug endangered children, and clean-up of toxic chemicals; all problems that eventually result in costs to the state. The average cost of a laboratory clean-up can be anywhere from \$5 to 10,000⁶⁸, and with the elimination of federal grants for laboratory clean ups, these costs will soon become the sole the burden of state and local governments. If a child is found in a laboratory, and must be placed in foster care, the average cost to foster that child varies by state, but is \$21,092 in South Dakota.⁶⁹ Those costs don't even mention the harm done to environments polluted by chemicals from methamphetamine laboratories, or the harm done to unsuspecting individuals who have the misfortune of purchasing a home that was once used as a methamphetamine laboratory and was never properly cleaned. For these reasons, any policy that is successful in reducing methamphetamine laboratories is a worthwhile endeavor.

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QUESTIONS TO CONSIDER AND RECOMMENDATIONS FOR FURTHER STUDY

1. Is the prescription only approach the only factor that has led to success in Oregon? Are there factors that are unique to Oregon that allow the policy to be so successful?
2. When factoring all considerations: trips to the doctor, co-pays, time off work, etc... does the cost of pseudoephedrine and ephedrine actually increase for the consumer? What is the cost to state Medicare?

-As a corollary, are the alternatives to pseudoephedrine and ephedrine effective in alleviating the symptoms experienced by allergy sufferers? If not, are there ways to improve the alternatives, such as increasing the dosage allowed in over the counter phenylephrine?
3. Are the other benefits experienced in Oregon, such as a reduction in all drug arrests, and a reduction in crime, attributable to the prescription only approach, or is this correlation merely coincidental?
4. What are the effects on the overall use of methamphetamine? Is there a reduction in the number individuals admitted for treatment? Are fewer patients visiting the ER for methamphetamine related incidents?
5. Can tracking systems be improved to prevent smurfing? Will a stop sale system or connected multi-state system prove more effective?
6. How harmful is the one pot method of meth production for the environment and a state's citizens?

¹ Suo, Steve and Quenzer, Derrik. “How Legislation Changed Meth Purity.” Chart.

http://www.oregonlive.com/special/oregonian/meth/pdfs/1004meth_purity.pdf

² Cunningham, J. & Liu, L.-M. “Impacts of Federal Ephedrine and Pseudoephedrine Regulations on Methamphetamine Related Hospital Admissions.” *Addiction*, (2003) 98, 1229-1237

³ Cunningham, James K and Miu, Lon Mu. “Impact of Methamphetamine Precursor Chemical Legislation a Suppression Policy, on the Demand for Drug Treatment.” *Social Science and Medicine* (2008) 66, 1463-1473

⁴ Cunningham J. K., Liu L.-M.. “Impacts of federal precursor chemical regulations on methamphetamine arrests.” *Addiction* 2005; 100: 479–488.

⁵ Suo, Steve. “Lobbyists and Loopholes.” *The Oregonian* October 4, 2004,

http://www.oregonlive.com/special/oregonian/meth/stories/index.ssf?/oregonian/meth/1004_lobbyistsandloopholes.html

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.

⁹ Ibid.

¹⁰ Cunningham, James K, Liu, Lon-Mu, and Callaghan, Russell. “Impact of US and Canadian Precursor Regulation on Methamphetamine Purity in the United States.” *Addiction* 2009; 104, 441–453

¹¹ Cunningham J. K., Liu L.-M.. “Impacts of federal precursor chemical regulations on methamphetamine arrests.” *Addiction* 2005; 100: 479–88.

¹² Cunningham J. K., Liu L.-M.. “Impacts of federal ephedrine and pseudoephedrine regulations on methamphetamine related hospital admissions.” *Addiction* 2003; 98: 1229– 37

¹³ Suo, Steve. “Lobbyists and Loopholes.” *The Oregonian* October 4, 2004,

http://www.oregonlive.com/special/oregonian/meth/stories/index.ssf?/oregonian/meth/1004_lobbyistsandloopholes.html

¹⁴ Ibid.

¹⁵ Quinzer, Derrik, and Suo, Steve. “How Legislation Changed Meth Purity.” *The Oregonian*

http://www.oregonlive.com/special/oregonian/meth/pdfs/1004meth_purity.pdf

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¹⁶ Suo, Steve. "Lobbyists and Loopholes." *The Oregonian* October 4, 2004, http://www.oregonlive.com/special/oregonian/meth/stories/index.ssf?/oregonian/meth/1004_lobbyistsandloopholes.html

¹⁷ Dobkin, Carlos, and Nicosia, Nancy. "The War on Drugs: Methamphetamine, Public Health, and Crime." *American Economic Review* 2009; 99:1, 324–349

¹⁸ Suo, Steve. "Lobbyists and Loopholes." *The Oregonian* October 4, 2004, http://www.oregonlive.com/special/oregonian/meth/stories/index.ssf?/oregonian/meth/1004_lobbyistsandloopholes.html

¹⁹ 63 Okl.St. Ann. § 2-212

²⁰ "Methamphetamine Lab Incidents 2004-2010." Chart. *DEA*. Web. March 23, 2011, http://www.justice.gov/dea/concern/map_lab_seizures.html

²¹ NMPI Advisory Board. "Advisory Board Position Paper." March 28, 2011 <http://www.oregondec.org/NMPI.pdf>

²² National Drug Intelligence Center. "National Methamphetamine Threat Assessment." 2009 <http://www.justice.gov/ndic/pubs32/32166/32166p.pdf>

²³ Consumer Healthcare Products Association. "NPLEx: The National Precursor Log Exchange Preserving Consumer Access to Needed Cold and Allergy Medicines." http://www.chpa-info.org/media/resources/r_6596.pdf

²⁴ NMPI Advisory Board. "Advisory Board Position Paper." March 28, 2011 <http://www.oregondec.org/NMPI.pdf><http://www.oregondec.org/NMPI.pdf>

²⁵ National Drug Intelligence Center. "National Methamphetamine Threat Assessment." 2009 <http://www.justice.gov/ndic/pubs32/32166/32166p.pdf>

²⁶ NMPI Advisory Board. "Advisory Board Position Paper." March 28, 2011 <http://www.oregondec.org/NMPI.pdf><http://www.oregondec.org/NMPI.pdf>

²⁷ Saulny, Susan. "With Cars as Meth Labs, Evidence Litters Roads." *The New York Times* April 14, 2010, http://www.nytimes.com/2010/04/15/us/15meth.html?_r=1&ref=todayspaper&pagewanted=print

²⁸ NMPI Advisory Board. "Advisory Board Position Paper." March 28, 2011 <http://www.oregondec.org/NMPI.pdf><http://www.oregondec.org/NMPI.pdf>

²⁹ Ibid.

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-
- ³⁰ “New Meth Formula Avoids Anti-Drug Laws.” Associated Press August, 24, 2007
http://www.msnbc.msn.com/id/32542373/ns/us_news-crime_and_courts/t/new-meth-formula-avoids-anti-drug-laws/
- ³¹ Saulny, Susan. “With Cars as Meth Labs, Evidence Litters Roads.” *The New York Times* April 14, 2010,
http://www.nytimes.com/2010/04/15/us/15meth.html?_r=1&ref=todayspaper&pagewanted=print
- ³² Brown, Trevor. “Oklahoma Narcotics Officials Expect to Finish 2010 With the Most Methamphetamine Laboratory Seizures in Six Years.” *McAlester News Capital* January 4, 2011,
<http://mcalesternews.com/local/x1091849209/Oklahoma-narcotics-officials-expect-to-finish-2010-with-the-most-methamphetamine-lab-seizures-in-six-years>
- ³³ Story, Justin. “Meth Lab Numbers Hit Record Highs.” *Bowling Green Daily News* February 9, 2011,
<http://www.bgdailynews.com/articles/2011/02/09/news/news2.txt>
- ³⁴ Consumer Healthcare Products Association. “Preserve Consumer Access to Pseudoephedrine in Missouri.”
http://www.chpa-info.org/media/resources/r_6152.pdf#search=%22one%22
- ³⁵ Hayes, Chris. “Rise in Shake and Bake Meth Labs Could Harm More People.” *Fox2Now* August 12, 2011
<http://www.fox2now.com/news/ktvi-shake-bake-meth-labs-081211,0,4712785.story>
- ³⁶ “New Meth Formula Avoids Anti-Drug Laws.” Associated Press August, 24, 2007
http://www.msnbc.msn.com/id/32542373/ns/us_news-crime_and_courts/t/new-meth-formula-avoids-anti-drug-laws/
- ³⁷ “New Meth Formula Avoids Anti-Drug Laws.” Associated Press August, 24, 2007
http://www.msnbc.msn.com/id/32542373/ns/us_news-crime_and_courts/t/new-meth-formula-avoids-anti-drug-laws/
- ³⁸ Consumer Healthcare Products Association. “Preserve Consumer Access to Pseudoephedrine in Missouri.”
http://www.chpa-info.org/media/resources/r_6152.pdf#search=%22one%22
- ³⁹ “The Truth O-Meter: Since Oregon’s prescription-only law took effect, meth lab incidents have dropped by 96 percent and meth-related arrests by 32 percent.” *The Oregonian*
<http://www.politifact.com/oregon/statements/2011/apr/02/rob-bovett/oregon-district-attorney-says-meth-lab-seizures-an/>
- ⁴⁰ Consumer Healthcare Products Association. “What is PSE.” 2011 <http://www.stopmethnotmeds.com/meth-problem/pse/>
- ⁴¹ Lynch, Adam. “The War on Sudafed Grows.” *Jackson Free Press*. February 3, 2010
http://www.jacksonfreepress.com/index.php/site/comments/the_war_on_sudafed_grows_020310/
- ⁴² NMPI Advisory Board. “Advisory Board Position Paper.” March 28, 2011
<http://www.oregondec.org/NMPI.pdf><http://www.oregondec.org/NMPI.pdf>
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-
- ⁴³ NMPI Advisory Board. “Advisory Board Position Paper.” March 28, 2011 <http://www.oregondec.org/NMPI.pdf><http://www.oregondec.org/NMPI.pdf>
- ⁴⁴ Hatton, Randy C., Almut, Winterstein G., McKelvey, Russel P., Shuster, Jonathan, Hendeles, Leslie “Efficacy and Safety of Oral Phenylephrine.” *The Annals of Pharmacotherapy* Vol. 41, No. 3. October 30, 2007: 381-390. <http://www.theannals.com/cgi/content/abstract/41/3/381?maxtoshow=&hits=10&RESULTFORMAT=&fulltext=phenylephrine+effect&andorexactfulltext=and&searchid=1&FIRSTINDEX=0&sortspec=relevance&resourcetype=HWCIT>
- ⁴⁵ Bronsky E, Boggs P, Findlay S, Gawchik S, Georgitis J, Mansmann H, Sholler L, Wolfe J, Meltzer E, Morris R, et al. “Comparative efficacy and safety of a once-daily loratadine-pseudoephedrine combination versus its components alone and placebo in the management of seasonal allergic rhinitis.” *Journal of Allergy and Clinical Immunology*. 1995 Aug;96(2):139-47. <http://www.ncbi.nlm.nih.gov/pubmed/7636050>
- ⁴⁶ “Methamphetamine Lab Incidents 2004-2010.” Chart. *DEA*. Web. March 23, 2011, http://www.justice.gov/dea/concern/map_lab_seizures.html
- ⁴⁷ Consumer Healthcare Products Association. “Preserve Consumer Access to Pseudoephedrine in Missouri.” http://www.chpa-info.org/media/resources/r_6152.pdf#search=%22one%22
- ⁴⁸ Bovett, Rob. “Pseudoephedrine Myths and Facts” Oregon Alliance for Drug Endangered Children <http://www.oregondec.org/IN/Tab14.pdf>
- ⁴⁹ “Methamphetamine Lab Incidents 2004-2010.” Chart. *DEA*. Web. March 23, 2011, http://www.justice.gov/dea/concern/map_lab_seizures.html
- ⁵⁰ http://www.ecy.wa.gov/programs/spills/response/drug_labs/MethLabSummary2009.pdf
- ⁵¹ Budnick, Nick. “One Meth Problem Leads to Another.” *Westlin Tidings* October, 30, 2009 http://www.westlinntidings.com/news/story.php?story_id=119629495808337700
- ⁵² Ibid.
- ⁵³ NMPI Advisory Board. “Advisory Board Position Paper.” March 28, 2011 <http://www.oregondec.org/NMPI.pdf>
<http://www.oregondec.org/NMPI.pdf>
- ⁵⁴ “Alcohol and Drug Treatment:2011 Presentation to the Ways and Means Committee” Oregon Health Authority
- ⁵⁵ “Methamphetamine” *Oregon Department of Addiction Services* April 11, 2011 <http://www.oregon.gov/OHA/addiction/meth/main.shtml>

⁵⁶ Bernstein, Maxine “Crime Rate in Oregon Drops to Lowest Level In Four Decades.” *The Oregonian* September 13, 2010 http://www.oregonlive.com/news/index.ssf/2010/09/crime_rate_in_oregon_drops_to.html

⁵⁷ Bernstein, Maxine “Crime Rate in Oregon Drops to Lowest Level In Four Decades.” *The Oregonian* September 13, 2010 http://www.oregonlive.com/news/index.ssf/2010/09/crime_rate_in_oregon_drops_to.html

⁵⁸ Ibid.

⁵⁹ Ibid.

⁶⁰ “Crime and Incarceration Rates.” *Oregon Criminal Justice Commission* http://www.oregon.gov/CJC/docs/CrimeRates10_09Final.pdf

⁶¹ Hendrickson, Robert G., Cloutier, Robert L., Fu, Rongewi. “The Association of Controlling Pseudoephedrine Availability on Methamphetamine-related Emergency Department Visits.” *Academic Emergency Medicine* Vol. 17, Issue 11. November 2, 2010: 1216-1222 <http://onlinelibrary.wiley.com/doi/10.1111/j.1553-2712.2010.00911.x/full>

⁶² “Oregon State Medical Examiner, Department of State Police Drug Related Deaths 2010.” http://www.oregon.gov/OSP/SME/docs/Drug_Related_Death_Report2_2010.pdf

⁶³ Ibid.

⁶⁴ Barbour, Haley. “State of Mississippi” January, 11 2011 <http://www.clarionledger.com/assets/pdf/D0168870111.PDF>

⁶⁵ “The Truth O-Meter: Since Oregon’s prescription-only law took effect, meth lab incidents have dropped by 96 percent and meth-related arrests by 32 percent.” *The Oregonian* <http://www.politifact.com/oregon/statements/2011/apr/02/rob-bovett/oregon-district-attorney-says-meth-lab-seizures-an/>

⁶⁶ “Meth Making Chemicals Seized at Los Angeles Airport.” *Associated Press* September 1, 2011 <http://mexicodrugwars.com/blog/2011/09/01/meth-making-chemical-seized-at-los-angeles-airport/>

⁶⁷ Stevenson, Mark. “Mexico’s Sinaloa Cartel Makes Big Move Into Meth” *The Associated Press* August 27, 2011 <http://www.google.com/hostednews/ap/article/ALeqM5i5doYcepsLGTkzquKhDeldl2la8w?docId=fa64f580dce44fedb33141511a7c8d6b>

⁶⁸ “The Methamphetamine Problem: Question and Answer Guide.” *Institute for Intergovernmental Research* http://www.iir.com/Justice_Training/centf/guide.aspx?AspxAutoDetectCookieSupport=1

⁶⁹ “Meth’s Cost to Communities.” *Meth Awareness and Prevention Project of South Dakota*. <http://www.mapps.org/Community%20Costs.htm>

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