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The Regulation of Ephedrine and Pseudoephedrine to Reduce the Hazards of Methamphetamine Labs and Availability of Methamphetamine

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ABSTRACT

This paper reflects the need to regulate the precursors critical to clandestine manufacture of methamphetamine, ephedrine and pseudoephedrine. The research draws upon historical evidence of governmental initiatives taken to curtail methamphetamine production, the results, and the efforts of people intent on producing methamphetamine have taken to circumvent legislation. The research also reflects in broad terms the devastating sociological and environmental negative effects of clandestinely produced methamphetamine as well as the dangers posed to first responders.

Research documents valid uses for consumer products containing ephedrine and pseudoephedrine. This paper allows for the continued, restricted use of such products. Products containing the crucial precursors ephedrine and pseudoephedrine should be further regulated to limit the impact of clandestine methamphetamine laboratories. The consulted research material includes books, articles, web sites, and congressional testimony.

The data presented in this research paper overwhelmingly support a bill be introduced and passed in Texas to regulate and classify ephedrine and pseudoephedrine, and products containing these precursors, as a dangerous drug, requiring a prescription by a physician. The prescription requirement will not eliminate methamphetamine in Texas, or in the United States, but will help eliminate the number of clandestine methamphetamine labs encountered by first responders, neighbors, and children.

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INTRODUCTION

This research paper supports the need for swift action to regulate precursor chemicals of illicitly manufactured methamphetamine. It demonstrates how the history of the regulation of ephedrine and pseudoephedrine has impacted the availability of illicit methamphetamine and the prevalence of clandestine methamphetamine laboratories. The data also demonstrates how other state regulations have had significant, lasting impacts on methamphetamine production. Products containing ephedrine and pseudoephedrine should be further regulated to reduce the hazards of methamphetamine laboratories and discourage methamphetamine production.

The research in this paper is relevant to law enforcement across the United States. Abuse of methamphetamine is a serious and growing problem affecting the United States, with every indication of widespread abuse increasing (National Institute on Drug Abuse, 2006). In fact, the current level of abuse in the United States has been referred to as a dual epidemic with the potential to destroy the physical, mental, economic, and social well being of those engaged in the abuse of methamphetamine (Halkitis, 2009). Despite increasing awareness of the drug and the regulation of methamphetamine precursors, methamphetamine continues to menace American society. Current efforts to control methamphetamine and its precursors have yet to demonstrate a sustained impact on the production and availability of methamphetamine, and more restrictive measures must be taken. There will be a number of methods of inquiry utilized during the research portion of this paper. The consulted research material includes books, articles, web sites, and congressional testimony.

POSITION

Methamphetamine abuse leads to devastating social effects, including medical issues, such as psychotic behavior; transmission of infectious disease; malnutrition; and severe dental problems; as well as other social ramifications, such as increased crime rates, unemployment, and spouse and child abuse. The clandestine manufacture of methamphetamine produces hazards to the persons involved in the manufacture and persons in the vicinity of a location used to manufacture methamphetamine. Every pound of methamphetamine produced at a clandestine laboratory produces six pounds of hazardous waste (National Institute on Drug Abuse, 2006). In addition, significant hazards exist to first responders arriving at the scene of a methamphetamine laboratory. The production of methamphetamine requires the use of hazardous chemicals, such as ether and ammonia. The first responders may or may not be aware of the existence of such hazards prior to their arrival. Respiratory exposures of many of these chemicals in various stages of chemical reaction require the use of respiratory equipment to prevent injury to first responders. This waste includes corrosive liquid, acids vapors, heavy metals, solvents, and other harmful materials that can cause death or disfigurement when contact is made with skin or breathed into the lungs. The vapors created by the illicit production of methamphetamine can attack mucous membranes, skin, eyes, and the respiratory tract, even if the laboratory is not in an actual "production" stage.

A brief history of methamphetamine and efforts to control it may assist in a better understanding of the evolution of the current epidemic. Amphetamine, which is similar to Methamphetamine, was first synthesized in Germany in 1887. Methamphetamine,

which closely resembles amphetamine in chemical structure, was first synthesized in Japan in 1919. Methamphetamine, which is derived from ephedrine or pseudoephedrine, which in turn are derivatives of the ephedra plant, was used by the Japanese military and civilian population to increase performance in war-time operations during World War II. Other forms of Central Nervous Stimulants, such as amphetamines, were also used by other nations during the war. Following World War II, forms of amphetamine such as Dexadrine and Methedrine were used by persons in the United States. Truck drivers, students, and athletes would use these substances to stay awake, improve performance, and concentration. (Covey, 2007)

Amphetamine tablets were widely available without a prescription until 1951, with inhalers available without a prescription until 1959 (Klee, 1997). In 1970, the Comprehensive Drug Abuse Prevention and Control Act, also referred to as the Controlled Substances Act; was passed which restricted the sales of some precursors such as ephedrine and pseudoephedrine to amphetamine and methamphetamine (Covey, 2007). This was one of the first regulations passed by Congress in an effort to limit the clandestine manufacture of methamphetamine.

Following the restriction of ephedrine in 1970, pseudoephedrine became the primary precursor for the production of methamphetamine. Use of methamphetamine declined following the 1970 Controlled Substance Act (Covey, 2007). According to the Department of Justice ("U.S. Chemical Control", 2011, para 3), "DEA chemical control was initiated in the United States with the passage of the Chemical Diversion and Trafficking Act of 1988 (CDTA) that became effective on August 1, 1989". This measure provided record keeping requirements imposed on chemicals and precursors

to methamphetamine while exempting certain medications available over the counter without a prescription (“U.S. Chemical Control”, 2011, para 3). This Act was designed so there would be a sufficient amount of the regulated chemicals and precursors used for medical and other legitimate purposes.

The Methamphetamine Control Act of 1996 was passed by Congress following the emergence of “super labs” in California and Mexico. “Super Labs” are clandestine laboratories having a production capacity of ten pounds of methamphetamine or more (O'Conner, 2007) and were believed to have been producing approximately eighty five percent of all methamphetamine in the United States. A shift in methamphetamine production in the 1990’s, however, indicated an increase from the “super labs” to smaller clandestine laboratories (Covey, 2007). The last major federal inititiative was the Combat Methamphetamine Epidemic Act 2005 which was signed into law on March 9, 2006 (Covey, 2007).

In Texas, laws were enacted in 2005 in an effort to regulate the purchase of products containing ephedrine and pseudoephedrine to combat the illicit manufacture of methamphetamine. Texas Health and Safety Code (H.S.) Chapter 486 (2005) regulates the sale of products containing ephedrine and pseudoephedrine by pharmacies and other retail establishments. This law restricts sales of products containing these substances to two packages of product, or of a maximum of 6 grams of ephedrine, pseudoephedrine and nor pseudoephedrine in any given product. H.S. Chapter 486 also mandates that products containing ephedrine and pseudoephedrine be stored behind a pharmacy or sales counter, or be stored in a locked display case within 30 feet of the sales or pharmacy counter. In addition, Texas Health and Safety

Code Chapter 486 (2005) requires persons purchasing these products be older than 16 years of age, present a valid photo identification, and sign for the purchase. Texas Health and Safety Code Chapter 486 (2005) also provides the retailer or pharmacy make a record of the date of sale, including the name of the purchaser, the date of the purchase, and a description and the amount of the item purchased.

Following each of these regulations, the availability of illicitly manufactured methamphetamine was reduced, if only temporarily. For example, the Drug Enforcement Administration shut down two major domestic suppliers of precursors of methamphetamine following the Chemical Diversion and Trafficking Act of 1993. According to Dobkin (2009), the cost and purity of methamphetamine in California following the raids, and subsequently the availability and purity, as well as arrests for methamphetamine were reduced significantly. The methamphetamine market recovered in California after approximately 18 months, suggesting the producers of the drug were able to locate suitable substitute supplies of precursors from other sources. (Dobkin, 2009)

There are numerous ways to manufacture methamphetamine. The two most common methods are discussed here. The first method discussed is referred to as the "P2P" method. This method is based on the chemical P2P (phenalacetone or phenyl-2-propanone) and methylamine. The U.S. government took steps restricting the sale of P2P and methylamine in response to the clandestine manufacture of methamphetamine in 1980, effectively eliminating this method as a viable means of illicit production in the United States (Weisheit, 2010). The second, and presently the most common method of illicit methamphetamine production, is the ephedrine reduction method. This method

includes the “Red Phosphorous” and “Birch” methods (Weisheit, 2010). The ephedrine reduction method simply removes an oxygen molecule from ephedrine or pseudoephedrine and creates methamphetamine (see Appendix). The Red Phosphorous and Birch Methods both reduce psedoephedrine to methamphetamine through slightly differing chemical reactions.

The relevance of the regulation of ephedrine and pseudoephedrine as it relates to the abuse and illicit manufacture of methamphetamine is crucial to the control of methamphetamine and the reduction of negative impacts of clandestine methamphetamine laboratories. Currently, ephedrine and pseudoephedrine are the key components utilized in the clandestine manufacture of methamphetamine. While many components and chemical compounds such as alcohol, ether, acetone, anhydrous ammonia, muriatic acid, lithium metal, etc., used in the clandestine manufacture of methamphetamine can readily be substituted; ephedrine and pseudoephedrine, cannot be easily replaced in the chemical process to produce methamphetamine. Without ephedrine and ephedrine based products, methamphetamine cannot be easily produced with currently unregulated and commercially available ingredients. Efforts to control precursors and to increase penalties for the manufacture of methamphetamine have undoubtedly played a role in reducing the number of domestic methamphetamine laboratories, though the precise extent of that impact is unclear. The 2009 *National Methamphetamine Threat Assessment* report indicated that the number of domestic methamphetamine laboratories increased in 2008 (National Drug Intelligence Center, 2011). One state, Indiana, saw a 31 percent increase in the number of methamphetamine laboratories seized between 2007 and 2008 (Weisheit, 2010).

Products containing ephedrine and pseudoephedrine should be further regulated to reduce the hazards of methamphetamine laboratories and discourage methamphetamine production. This may be accomplished by classifying medicinal products containing ephedrine and pseudoephedrine as a Scheduled drug requiring a prescription in the State of Texas. To date, two states, Oregon and Mississippi, have enacted legislation requiring products containing ephedrine, pseudoephedrine, and nor pseudoephedrine to be dispensed only by a prescription issued by a physician. The Mississippi legislation of HB 512 became effective July 1, 2010. The Oregon legislation went into effect on July 1, 2006. The Department of Justice reported that following the enactment of this law, Oregon demonstrated a "92 percent decrease in the number of methamphetamine laboratories seized, a 22 percent decrease in property crime, and a 7 percent decrease in violent crime" ("Drug Coast HIDTA", 2010, p. 4).

Most recently, the Texas legislature has passed legislation requiring the electronic logging of sales of ephedrine, pseudoephedrine, and norpseudoephedrine under the Texas Helath and Safety Code Section 486.0141 (2005). This legislation was passed into law September 1st, 2011 and went into effect January 1st, 2012. At the time of this research, it is still too early to tell if this law will have the desired effect of limiting ephedrine, pseudoephedrine or norpseudoephedrine in the illicit manufacture of methamphetamine.

COUNTER POSITION

As cited by Weisheit (2010), there are "raised doubts" about claims that restricting precursors for methamphetamine production in California affected supply of the drug, which suggests that the restrictions had no effect on supply, noting "following

precursor regulation, the price of methamphetamine went down" (p. 8). Current data indicates that most of the methaphetamine available in the United States is produced in Mexico or the American Southwest ("Meth Kills," n.d.). Methamphetamine produced in these regions are typically from "super labs" that can produce in excess of ten pounds of methamphetamine per "cook". This argument, while valid at the time of the research, predated the ban of ehpedrine and pseudoephedrine precursors in Mexico.

According to the Meth Lab Homes websites, many producers of illicit methamphetamine have turned to "smurfing" as a means to obtain the ephedrine and pseudoephedrine necessary to produce methamphetamine. The Department of Justice described smurfing as "a method used by some methamphetamine and precursor chemical traffickers to acquire large quantities of pseudoephedrine. Individuals purchase pseudoephedrine in quantities at or below legal thresholds from multiple retail locations" ("Meth Kills," n.d.).

Smurfing and "super labs" have shown an increase in 2008 and 2009 in California, with evidence supporting that even the homeless population is being recruited to purchase products containing psedoephedrine for use in these labs ("U.S. Border Security and California Meth Labs," 2010). According "U.S. Border Security and California Meth Labs," (2010), smurfing activity and the resulting meth lab dump sites actually increased in California in 2008 and 2009. Meth Lab Homes went on to indicate that the ban on pseudoephedrine products in Mexico had actually caused an increase in smurfing activities in California and "will most likely limit the availability of the chemical in that country, thereby limiting any incentive for Mexican methamphetamine producers to move their operations back to Mexico" (para. 13)

Also evident in “smurfing” are the violations of retailers to enforce limits of ephedrine and pseudoephedrine products. Retailers can accrue considerable profits from the sale of such products. According to the National Association of Boards of Pharmacy (NABP), CVS Pharmacy was investigated for violating electronic pseudoephedrine logging requirements, from September 2007 to November 2008, which failed to prevent multiple purchases by an individual on the same day. CVS Pharmacy was fined $77.6 million “in penalties and forfeitures”. The NABP went on to quote the Department of Justice report’s that “CVS’s failure to ensure compliance with the law led to large amounts of PSE (pseudoephedrine) being supplied to methamphetamine traffickers and an increase in methamphetamine production in California” (NABP, 2010, p. 1). CVS was also alleged to have earned $2.6 million from the illegal sales.

RECOMMENDATION

Ephedrine and pseudoephedrine are crucial to domestic methamphetamine production. Incremental regulations of ephedrine and pseudoephedrine have demonstrated decreases in illicit methamphetamine production, if only temporarily. Require products containing ephedrine or pseudoephedrine to be issued only by prescription. The State of Oregon enacted law in 2006 requiring all cold, allergy, and sinus medications containing pseudoephedrine can only be obtained in Oregon with a prescription by a physician. According to testimony presented to the Oregon Senate Judiciary Committee, prescription restrictions for ephedrine and pseudoephedrine containing products decreased the prevalence of clandestine methamphetamine laboratories and of illicitly produced methamphetamine. In addition, for the period of

July 1, 2006 through the date of testimony May 8, 2007, clandestine methamphetamine laboratories were “virtually eliminated” and of those labs located during the same time frame, all had precursor chemicals of ephedrine or pseudoephedrine that could be traced to sources before the enactment of the Oregon law, or were from “smurfing” in other locations (*“Written Testimony,”* 2007). The data presented in this research paper overwhelmingly support a bill be introduced and passed in Texas to regulate and classify ephedrine and pseudoephedrine, and products containing these precursors, as a dangerous drug, requiring a prescription by a physician. The prescription requirement will not eliminate methamphetamine in Texas, or in the United States, but will help eliminate the number of clandestine methamphetamine labs encountered by first responders, neighbors, and children.

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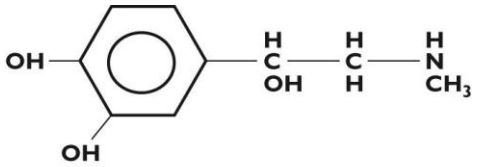
APPENDIX



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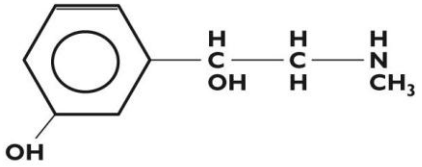

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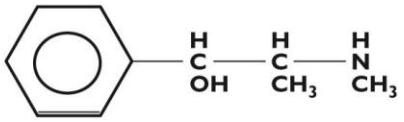

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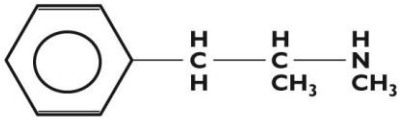

Methamphetamine