METH LAB CLEANUP

Solutions to Help Reduce the Harmful Effects of Methamphetamine Residuals

Certified Public Manager® Training Program
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INTRODUCTION

Methamphetamine (meth) is an illegal, highly addictive, toxic drug used as a central nervous system stimulant. It is causing a nationwide epidemic and represents one of the fastest growing substance abuse threats in America.

Meth, commonly known as “speed,” “chalk,” “ice,” “crystal,” “crank,” or “glass” can come in many forms and can be smoked, snorted, injected, or orally ingested. The most common form is a white-yellowish, odorless, bitter tasting crystalline powder that can be easily dissolved in water or alcohol. Meth is made from using inexpensive over-the-counter drugs, such as common cold pills containing ephedrine or pseudoephedrine. Manufacturers of meth also use products containing acetone, alcohol (gasoline additives or rubbing), toluene (brake cleaner), engine starter (ether), drain cleaner (sulfuric acid), coffee filters, iodine (veterinarian products), salt (table or rock), batteries (lithium), propane tanks (anhydrous ammonia), fertilizer, lye, matchbox striker plates and/or muriatic acid. These are common products that can be purchased from local convenience or grocery stores.

Clandestine meth labs (clan labs) are extremely dangerous. Many of the chemicals found in these labs are very corrosive or flammable. The vapors emitted from the chemical reactions can attach to mucous membranes, skin, eyes, and/or the respiratory tract. Some chemicals will react with water or other chemicals and cause a fire or explosion.

Clan labs vary in size and output. Larger labs, known as super labs, can produce ten pounds of meth per production cycle. Smaller labs, sometimes called “mom and pop” or “shake and bake” labs, are the most common type of labs found in Alabama. Meth labs found in Alabama are primarily in isolated rural communities, motels, apartments, storage units, automobiles, mobile homes and boats. According to Drug Enforcement Agency (DEA) figures last year, 8,000 meth labs were seized nationwide, and 3,300 children were found in meth lab locations.
THE PROBLEM

Alabama continues to struggle with the growing problem of meth usage and the production of meth labs within the state. According to Captain Karl Youngblood of the Alabama Bureau of Investigations, Alabama does not have funding to cover the cost of meth lab cleanup. With limited federal funding, police and sheriff’s departments have scaled back the “war on meth” due to the costly cleanup of the toxic waste that meth labs generate. As a result of limited funding, Alabama has yet to establish standards and guidelines outlining the proper cleanup and testing standards for properties exposed to meth. On April 19, 2012, House Bill 710 was read, which stipulates that the Alabama Departments of Public Health, Public Safety and Homeland Security work together to declare meth lab locations as “non-occupancy.” However, this proposed bill still did not establish proper standards or guidelines for the cleanup and testing processes. Without proper cleanup and testing guidelines in place, the residual effects can be far-reaching. Although this bill could have been a beginning for establishing cleanup standards and guidelines, it did not pass during this legislative session.

People can be exposed to the dangers of meth by breathing the air that contains suspended contaminant particles through dust exposure. They can also be exposed by touching surfaces that are contaminated, by eating or drinking from glasses or dishes that have layers of contaminated grime, or by eating or smoking after their hands are in contact with contaminated areas. Furnace air filters and drains may also be contaminated. Small but significant amounts of chemicals may have contaminated surfaces, drains, sinks, ventilation systems and absorbent materials (couches, carpets, beds, etc.) in a dwelling that was used to manufacture meth. Meth lab contaminants may also pose serious health threats to persons exposed to them, such as respiratory problems, skin and eye irritation, headaches, nausea—and dizziness. People should never be allowed to come in contact with these areas until proper cleaning of the contaminated area has been completed.

Since Alabama does not have established cleanup and testing standards and guidelines, public notification of properties exposed to meth is highly important. Currently, Alabama does not have a centralized registry for properties that have been contaminated by meth. Therefore, public awareness of these properties is little to none.
PROOF THE PROBLEM EXISTS

Recently, the Montgomery Advertiser quoted Senator Roger Bedford saying, “Alabama has an epidemic of meth in all 67 counties.” The article also stated that during the year 2010, Alabama police found 665 locations where meth was being manufactured.

Nationwide, meth lab seizures rose 76 percent between 2007 and 2009. Meth lab seizures in Alabama have exceeded this overall trend, rising 290 percent from 2007 to 2009. (El Paso Intelligence Center’s National Seizure System (EPIC, NSS), extracted and National Methamphetamine Training & Technical Assistance Center – www.nationalmethcenter.org/STATES-AL)

General Statistics

Prior to 1990, the meth problem was primarily limited to a few southwestern states. However, it has now become a nationwide epidemic. According to the National Household Survey on Drug Abuse taken in 2000, 8.8 million people had tried methamphetamine, compared to only 1.8
million people in 1994. In the early 1990s, meth users were primarily white males between the ages of 18 and 35, with blue collar occupations, such as truck drivers, construction workers, factory workers, etc. Over time, the demographics have slightly changed. While Caucasian males are still more likely to use meth, women have become just as likely to use the drug as men, and younger people are beginning to use meth at higher rates. In a study done by the American Drug and Alcohol Survey, where data was collected from over 600,000 students, males were still more likely to use meth followed by females, Asians, Whites, and African Americans. In a study done by Glittenberg and Anderson (1999), they explained that many young people are frustrated with their situation in life and use meth to cope with “the frustrations and anger associated with their lack of a future with hope.”

In Alabama, meth is becoming the biggest drug threat, surpassing the cocaine epidemic statewide. Meth labs are generally located in isolated rural communities. Intelligence indicates that bulk meth distribution in Alabama is dominated by groups supplied by sources in Mexico with transport routes through the border states. Mexican Drug Trafficking Organizations use long haul trucks, rented cars, private vehicles and airlines, as well as shipping via the Post Office and other interstate commercial carriers. Street sales and use of meth are divided between the Hispanic and Caucasian communities. The increasing popularity of meth in small towns has resulted in an increase in theft and violence. El Paso Intelligence Center (EPIC) statistics indicated lab seizures of 207, 280, and 297 in 2002, 2003, and 2004, respectively, indicating an increase in illicit production (www.nationalsubstanceabuseindex.org).

Effects on Society

Meth not only affects the user’s life, but it impacts an entire community. Child welfare agencies see an increase in the number of neglected, abused and orphaned children needing assistance as a result of having parents that are addicted to meth. Law enforcement is confronted with an increase in crime rates, such as burglary, identity theft and drug trafficking. With increased crime rates, additional manpower is needed to patrol the streets, costing the city and taxpayers more money. Health care professionals must respond to an increase in emergency room visits in cases related to meth, such as overdoses, burns and injuries caused by meth lab fires or explosions.

Property owners, landlords and real estate agents suffer property damage, and/or loss, and a decrease in property value as a result of a property being used for a meth lab. Generally, insurance policies do not cover costs associated with clan lab cleanup. The property owner or lien holder is responsible for cleanup costs associated with testing and cleaning the residence under current hazardous waste regulations. In addition to a property owner’s obligation to pay for testing and cleanup, a host of other legal issues arise when a meth lab is found on a property. The federal Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) imposes strict joint and several liabilities on the owner or operator of a facility from
which a release of a hazardous substance occurs. Many of the chemicals used in meth production fall within the definition of a “hazardous substance” under CERCLA.

Not only does meth affect the livelihood of the community, it creates potential health problems for individuals that are exposed to the residual effects. As previously stated, the chemical residue resulting from meth production can pose serious health threats to persons exposed to them. Toxic chemicals get embedded into walls, soaked into carpets and melted onto appliances. Exposure to volatile organic compounds (VOCs) may cause symptoms such as nose and throat irritation, headaches, dizziness, nausea, vomiting, confusion and breathing difficulties. Acids or bases will cause a burning sensation on the skin and in mucous membranes and can cause severe eye damage. Exposure to metals and salts can cause a wide range of health effects including respiratory irritation, decreased mental function, anemia, kidney damage and birth defects.

Children have the greatest risk of being affected by chemical exposure because of their breathing rates and body sizes. Children inhale relatively larger amounts of chemical vapors due to their faster respiratory rates and greater lung size to body weight ratio. When given a urine test, some children found at meth lab sites tested positive for methamphetamine.

The passing of time will not ease or lighten the effect of residue left behind. One family with three children ages one, two, and three purchased a house. Afterwards, they were informed by neighbors and others that the house happened to be the location of a former meth lab. They scrubbed and painted all the walls and replaced all the flooring. Still, within a five year period the whole family experienced health problems. They had the home tested and found disturbing meth levels. At least one of the children still needs medical attention and may need it for the rest of her life. (http://methlabhomes.com/2009/02/family-sickened-by-chemicals-in-former-meth-lab-home-asks-for-help/) Their situation could have been avoided if they knew before purchasing the house that it was used as a meth lab and not properly cleaned. This same scenario can happen to any Alabama family purchasing a house which was formerly used for making meth. As this epidemic grows, the impact on society will become greater and more widespread. Therefore, it is vital that information, standards, and guidelines are in place to protect Alabama citizens.
THE BASIC SOLUTION

What Are Other States Doing?

The State of Tennessee has a Clandestine Methamphetamine Laboratory (CML) Cleanup Program and Website through the Tennessee Department of Environment & Conservation (TDEC). TDEC established rules to determine when a property is “safe for human use” and developed Reasonable, Appropriate, and Protective (RAP) cleanup guidelines to decontaminate properties affected by Clandestine Methamphetamine Laboratories.

Tennessee utilizes an “Authorized Central Storage Program.” The program consists of a dozen hazardous materials (HAZMAT) containers that are placed throughout the state in secure, secret locations. The investigator neutralizes and makes the labs and their components safe on the scene for transport. Once the lab and its components are made safe, the Methamphetamine Task Force takes the Meth labs to the HAZMAT site, where they are later picked up by a hazardous material contractor for disposal. The Alabama Department of Public Safety is currently developing a similar program to deal with the bulk chemicals seized from meth lab operations.

In Tennessee, the cleanup process begins once the criminal investigation authorities have deemed that the crime scene is no longer necessary for evidence collection, and a quarantine notice has been provided by a TDEC Certified CML Contractor, Clandestine Methamphetamine Lab Hygienist (CML-H), or Certified Industrial Hygienist (CIH) to the property owner. After securing approval in writing from the designated Chief Law Enforcement Office, the property owner can enter the quarantined property. The property owner should contact a Cleanup Contractor within 60 days of the property being released for cleanup.

The Cleanup Contractor is recommended to secure as much information as possible from law enforcement (Law Enforcement/First Responder Crime Scene Report). After reviewing the information from law enforcement, the Cleanup Contractor will inspect the quarantined property, assess all potential hazards, and assign the appropriate Tiered RAP Cleanup Response (if the Tier is not assigned by law enforcement) to the quarantined property; justification for the Tier assignment must be supplied. The Cleanup Contractor will develop an appropriate Scope of Work (SOW) for cleanup activities based on the Tier Response. During this step, appropriate personal protective equipment for the cleanup workers will be assigned to avoid potential exposure to residual waste and contaminants. The Cleanup Contractor should verify and document that all cleanup work was performed according to the SOW. If removal and disposal of contaminated materials requiring Special Waste or Hazardous Waste containment is necessary, then this activity must be approved by the appropriate regulatory agency, and documented in a Transportation and Disposal Plan.
Once the quarantined property is cleaned by an approved contractor, the property must be inspected by a CIH or CML-H to get a Certificate of Fitness. Tennessee’s cleanup standards are as follows: (1) Methamphetamine shall not exceed 0.1 microgram /100cm² on any hard surface, (2) Volatile Organic Compounds shall not exceed 1ppm in air as measured under normal inhabitable ventilation conditions, and (3) if it is determined that lead or mercury were used in the lab process, the standard for cleanup of lead on any surface shall not exceed 40ug/ft², and mercury shall not exceed 50 nanograms/m³ for indoor air.

When the inspection and sampling are complete, the hygienist compiles a documentation package, which contains pictures from the cleanup, disposal receipts and explanations of what work was done. The hygienist takes pictures of sample areas and provides sampling results. When the sampling is confirmed clean, the hygienist adds a Certificate of Fitness. This Certificate of Fitness is sent to the law enforcement agency that quarantined the property to get a Release from Quarantine. The law enforcement agency may request a copy of the entire documentation package for TDEC to review.

To get the property off the list of methamphetamine-contaminated sites and/or quarantined property list, the property owner must furnish TDEC, and/or law enforcement, with a copy of the Certificate of Fitness and the Release from Quarantine. The quarantine can only be lifted with a Certificate of Fitness from an approved hygienist.

The CML Cleanup Program and process has enabled the State of Tennessee to become more proactive in the ongoing problem of meth lab productions. By having established cleanup standards and guidelines, the effects of meth residual exposure to the community has been reduced. A Tennessee news article published by WDEF News 12 on April 26, 2012, reported that in 2010, Tennessee had 2,082 meth lab seizures, and it appears that Tennessee was number one in the nation that year for the number of meth lab seizures. The same article reports that along with federal funding, there was a significant reduction in costs per lab to immediately deal with the hazard. By establishing the Container Program and using the private contractor method, the DEA’s projected cost savings was $3.47 million, reducing the cost for cleanup per meth lab from $2,500 to $2,900 to approximately $500 per meth lab.

Kansas is another state that is making an effort to be proactive regarding the meth epidemic. The State of Kansas passed The Chemical Control Act, July 1, 1999, which started a Meth Lab Education & Notification Program and a Chemical Cleanup Program. The Chemical Cleanup Program paid for removing chemicals from seized meth labs and the oversight of property cleanup. However, funding for the Program concluded in 2009; therefore, only technical advice and cleanup guidance is currently being provided through the Spill Response Unit. Information can also be found on the Kansas Department of Health and Environment’s website, http://www.kdheks.gov/methlabs/. Currently, Kansas uses the U.S. Environmental Protection Agency (EPA) Voluntary Guidelines for Methamphetamine Laboratory Cleanup.
The State of Georgia has a clandestine cleanup program similar to Tennessee, which requires documentation of the pre-assessment and decontamination process (testing, maps, and description of site and law enforcement records). As a public service to the community, Georgia provides residents with the ability to have their homes tested for meth. On www.methlabcleanup.com, residents can obtain instructions on how to send samples from their properties for testing. Sample kits are available for homeowners at a cost of $55 each. Each kit contains the following: nitrile gloves, sampling templates, four sampling swabs and containers, easy to use instructions, and analysis by an EPA Certified Laboratory. Once submitted to the lab, the results can be received within three to four business days. This is a means to bring public awareness and a prevention tool to help avoid any potential health problems within individual households and the overall community.
RECOMMENDATIONS

**Goal 1:** Adopt, temporarily, the United States Environmental Protection Agency (EPA) Voluntary Guidelines for Methamphetamine Laboratory Cleanup while the state develops its own guidelines for the remediation of meth-contaminated properties. (Agency action required)

EPA has established “Voluntary Guidelines for Methamphetamine Laboratory Cleanup,” which can be found at the following link: [http://www.epa.gov/oem/methlab.htm](http://www.epa.gov/oem/methlab.htm). The guidelines are voluntary, but provide property owners with guidance in dealing with residual contamination associated with the production of meth. These guidelines should fill the gap of information while the appropriate state agencies develop specific guidelines for Alabama.

The appropriate state agencies should develop guidelines addressing the testing and cleanup of potential residual contamination resulting from meth production. Numerous states have developed cleanup guidelines to assist private property owners, banks and real estate brokers in dealing with the potential public health, environmental and liability issues associated with meth production sites. The guidelines should include how to have a property tested for contamination, suggested methods for the cleaning of hard surfaces and methods for removing and disposing of contaminated materials not easily cleaned such as carpet, furniture and drapes. The guidelines should also include information about test kits.

**Goal 2:** Establish a process that allows all entities of state and local government and law enforcement to report known meth-related property information to the appropriate state agency for the purpose of listing all meth production sites in a centralized database registry. A suggested home for all meth-related information is the state of Alabama’s website, [www.alabama.gov](http://www.alabama.gov). (Legislative action required)

Alabama should develop a process for lab seizure notifications conducted by state and local law enforcement to the appropriate state agencies. The DEA keeps a registry of properties where meth manufacturing has been found. According to the registry, there are 904 properties currently listed in the state of Alabama. A search of other DEA statistics revealed a total of 3,214 meth lab seizures during the time period 2004 to 2010. The discrepancy in these numbers indicates that many of the lab seizures are not being captured by the DEA property registry. A state registry would allow accurate tracking of all meth-production contaminated properties across the state and enable state government to track the true scale of the problem.

**Goal 3:** Establish a science-based cleanup standard for the remediation of meth-production contaminated properties. (Legislative action required)
Surveys of cleanup standards in other states reveal that almost all states that have established a standard use 0.1 micrograms of Methamphetamine per 100 cm² on hard surfaces as the cleanup requirement. This value is 1/15th of the Health Based Risk Value of 1.5 micrograms of Methamphetamine per 100 cm² for Methamphetamine established by the state of California and should provide an adequate margin of safety dealing with residual meth lab contamination. Alabama currently has no Health Based Risk Value for exposure to meth lab contamination and no standard for the remediation of the contamination in other areas where exposure might occur such as vehicles, homes and businesses where meth production has occurred.

**Goal 4**: Develop a strong public education/community awareness campaign concerning the dangers associated with the production of meth.

The state of Alabama should develop a comprehensive meth awareness campaign to educate teachers, students and the general public about the dangers associated with the manufacturing and use of meth. Surrounding states have developed a variety of education-based tools that are available online and for public use to help citizens understand the scale and the scope of the meth crisis in America. There is a variety of information available, but no central location for access to the information in Alabama.

**Potential Funding Sources**

**Drug Enforcement Agency**

The Alabama Department of Public Safety and the Alabama Department of Environmental Management have worked together with the Drug Enforcement Agency to acquire and place hazardous waste storage containers across Alabama to help facilitate the safe storage and cost-effective disposal of bulk chemicals associated with meth production. The program allows law enforcement personnel trained in meth lab response to secure, stabilize, package and transport bulk chemicals seized from a meth lab to one of the hazardous waste containers for storage. The Alabama Department of Public Safety maintains the sites and arranges for disposal of the material accumulated from numerous seizures across the state. By bulking the chemicals at centralized locations, the cost of final disposal is minimized greatly as compared to sending each seizure separately for immediate disposal. The transportation of the chemicals by local law enforcement would be the only additional cost incurred and in most cases those expenses would be eligible for reimbursement through the EPA’s Local Government Reimbursement Program (LGR).
EPA Local Government Reimbursement Program (LGR)

The LGR Program is managed by the EPA and is designed to assist entities of local government in responding to hazardous material releases into the environment through limited funding of the response activities. The program is not a primary funding source for local first response, but a program to supplement shortfalls in local government budgets when the potential responsible party does not have the ability to pay the response cost. The program requires the unit of local government to attempt cost recovery from the potential responsible party before submitting an application to the LGR program. The maximum allowable reimbursement is $25,000 per response.

While the DEA provides funding for handling bulk chemicals associated with clan labs, the local government is left with the cost of expendable resources such as personal protective equipment and overtime for drug task force officers to secure and transport bulk chemicals to centrally-located collection and storage facilities. These costs could be eligible for reimbursement under the program.

The LGR program should be publicized across the law enforcement community of Alabama to allow departments that experience budget shortfalls to continue to provide public safety response concerning clan labs.

Restitution

Restitution is another financial means that can be used to help fund the cleanup of meth lab residuals. As stated before, it is currently the homeowner’s responsibility to clean up any residuals that may remain from a meth lab bust. However, testing and cleanup of properties contaminated by the production of meth should be the responsibility of the persons convicted of manufacturing meth on the property. Court ordered restitution could cover expenses incurred by innocent property owners to test and, when necessary, decontaminate these properties.
Meth use is a growing epidemic affecting communities, both directly and indirectly. If the usage and production of the drug cannot be contained, then action must be taken to minimize the effects of its potential exposure. The indirect effects of the residuals from meth labs can have as great an impact on an individual as if they have used the drug directly. It is imperative that Alabama becomes proactive in this cause by establishing meth standards and guidelines. These standards and guidelines will help ensure that properties exposed to meth today will not have detrimental effects on individuals in the future.
REFERENCES

California Department of Toxic Substance Control website (www.dtsc.ca.gov/sitecleanup/erp/clan_labs.cfm#Finalized_Scientific_Documents_for_Heath_Based_Methamphetamine_Cleanup_Standard_NEW)

California Department of Toxic Substance Control website (www.dtsc.ca.gov/SiteCleanup/ERP/Clan_Labs.cfm)

Kansas Department of Health and Environment website (www.kdheks.gov/methlabs/)

KCI.org The Anti-Meth Site (www.kci.org/meth_info/meth_cleanup)

METH Awareness and Prevention Project of South Dakota website (www.mappsd.org/Children%20Photo%20Gallerty.htm)

Meth Lab Cleanup website (www.methlabcleanup.com)

Meth Lab Cleanup LLC Services website (http://georgiamethlabcleanup.com/gamethlabcleanup_003.htm)

Meth Lab Homes website (http://methlabhomes.com)


National Alliance for Drug Endangered Children website (www.nationaldec.org)

National Meth Center website (www.nationalmethcenter.org)

National Substance Abuse Index (www.nationalsubstanceabuseindex.org)


Society for Public Health Education website (www.sophe.org)

Tennessee Department of Environment & Conservation website (www.tn.gov/environment/dor/meth)

United States Drug Enforcement Administration website (www.justice.gov/dea)

United States Environmental Protection Agency website (www.epa.gov)


United States Environmental Protection Agency, Local Government Reimbursement Program website (http://epa.gov/emergencies/content/lgr/)
APPENDIX

Family sickened by chemicals in former meth lab home asks for help
February 17, 2009 by Meth Lab Homes

We need help!! We bought our house 5 years ago, after having 3 children ages 3, 2, 1, we begin to find out from neighbors, people in community that meth was manufactured in our home. All 3 of our children, plus my husband and myself are all experiencing health effects with our 2 year old suffering the most. She has been on the max amount of steroids for her age and size that it has affected her growth. My 1 year old is bigger than my 2 year old.

After we bought the house, we cleaned walls, painted and replaced all flooring throughout house. We just had our home tested and some rooms such as kitchen, bedrooms, duct work, etc. still have very disturbing meth levels. We don’t know what to do. Repairs on our home are estimated at a minimum of $30,000 that we don’t have nor can come up with. We don’t know which direction to go or what to do. [SIC]

Below, is a more recent picture of the two year old from the New York Times article. It shows what she must endure because of the effects of meth production in the home which was not properly cleaned before the family took possession.

[19]