

# **U.S. Drug Enforcement Administration**

## **METHAMPHETAMINE: “METH 101”**



**DEA Chemical Industry Conference  
September 17-18, 2008  
Atlanta, GA**

# OUTLINE

- **WHAT IS METHAMPHETAMINE?**
- **WHAT IS A CLANDESTINE LABORATORY?**
- **DANGERS OF CLANDESTINE LABORATORIES.**
- **U.S. HISTORY OF CLANDESTINE METHAMPHETAMINE LAB EXPERIENCE.**
- **METHAMPHETAMINE PRODUCTION METHODS.**
- **CURRENT SITUATION.**

# THE THREAT

- Global in nature
- Est. user population of Amphetamine-type substances, incl. methamphetamine: 26+ million
- South East Asia, Oceania, Europe
- All points...Africa, Middle-East, Sub-Continent, etc
- UNITED STATES...consumer and producer

# METH-EFFECTS

- **Central nervous system stimulant, like cocaine, but stronger.**
- **Can be injected, smoked, snorted, or taken orally.**
- **Increases heart rate, blood pressure, body temperature, respiration, and alertness.**
- **Dilates pupils and produces euphoria and a sense of increased energy and tremors.**

# METH-EFFECTS

- Irritability
- Aggressive behavior
- Anxiety
- Forgetful
- Auditory hallucinations
- Paranoid delusions
- Withdrawal produces depression



# METH- EFFECTS

- **Brain and Central Nervous System Effects:**

- Rush
- High
- Pleasure



- **Short Term Effects:**

- Increased pulse rate & blood pressure
- Insomnia
- Decreased appetite

# METH- EFFECTS

- **Long Term Effects:**
  - Agitation
  - Increased body temperature
  - Hallucinations, convulsions
- **Pregnancy Effects: (Crank Babies)**
  - Premature delivery
  - Skeletal, physical, and developmental abnormalities
  - Learning and growth delays, including coordination problems

# METH AND THE BRAIN:



- **METH releases neurotransmitters into the brain--DOPAMINE and SEROTIN.**
- **Vital to brain functions that control MOOD MEMORY, SLEEP, MOVEMENT, DECISION MAKING and APPETITE.**
- **Brain neurons that release DOPAMINE and SEROTIN become damaged.**

# PHYSICAL EFFECTS

- **Weight loss**
- **Sweating**
- **Body Odor**
- **Bad Teeth**
- **Open Sores**

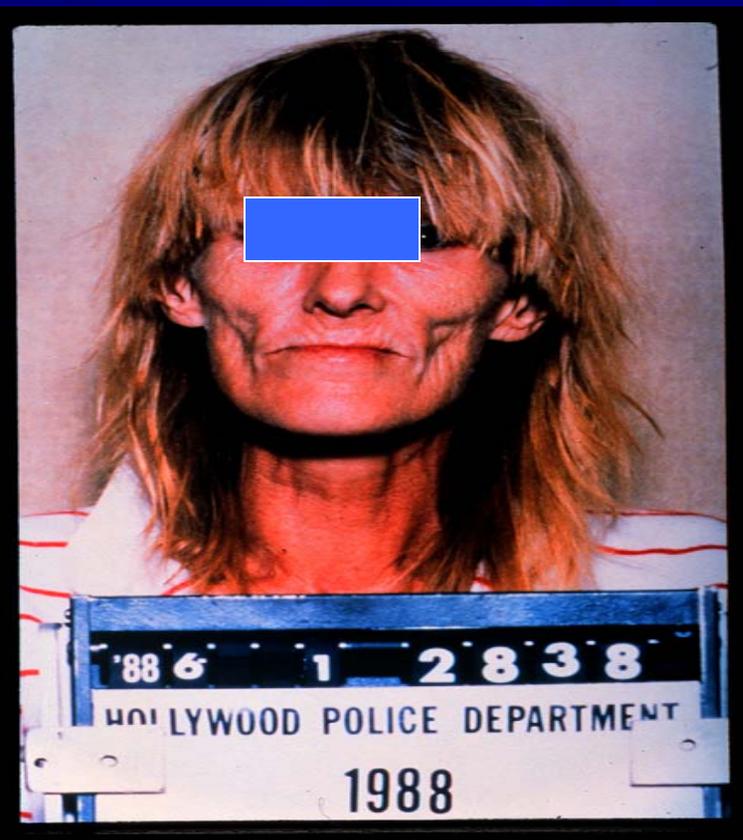
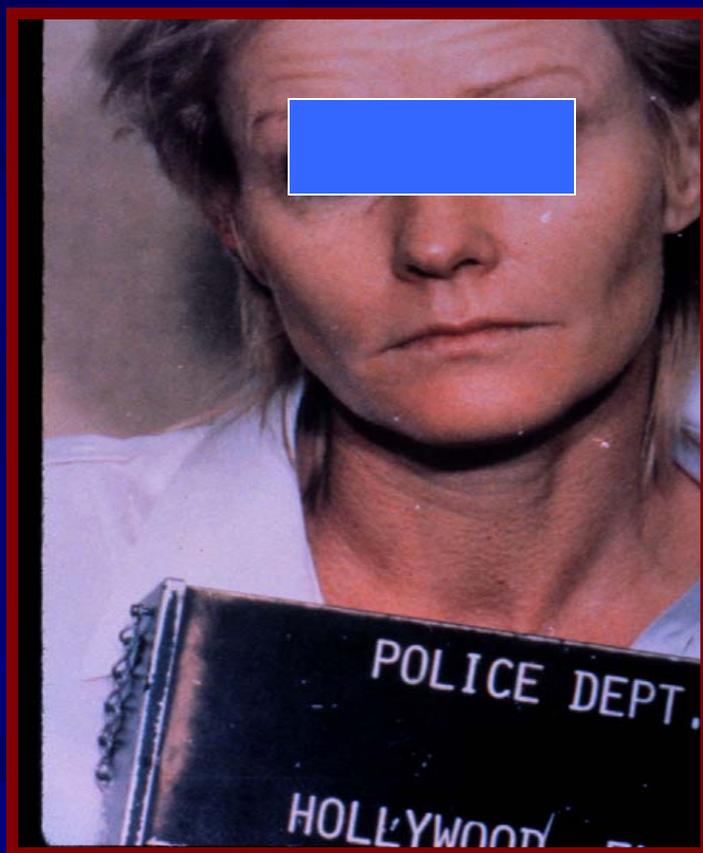


# TWO MONTHS OF ABUSE



*2 months later*

# EIGHT YEARS OF ABUSE



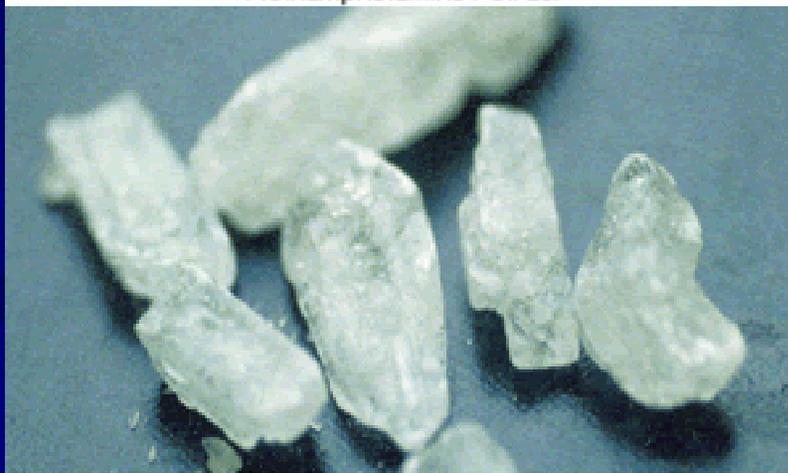
# STREET FORMS OF METH



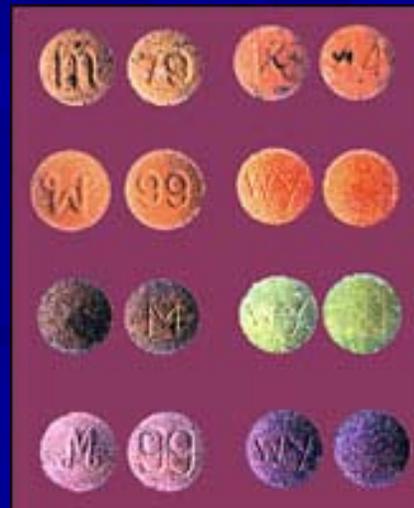
Methamphetamine Powder



Rock Methamphetamine



Ice Methamphetamine



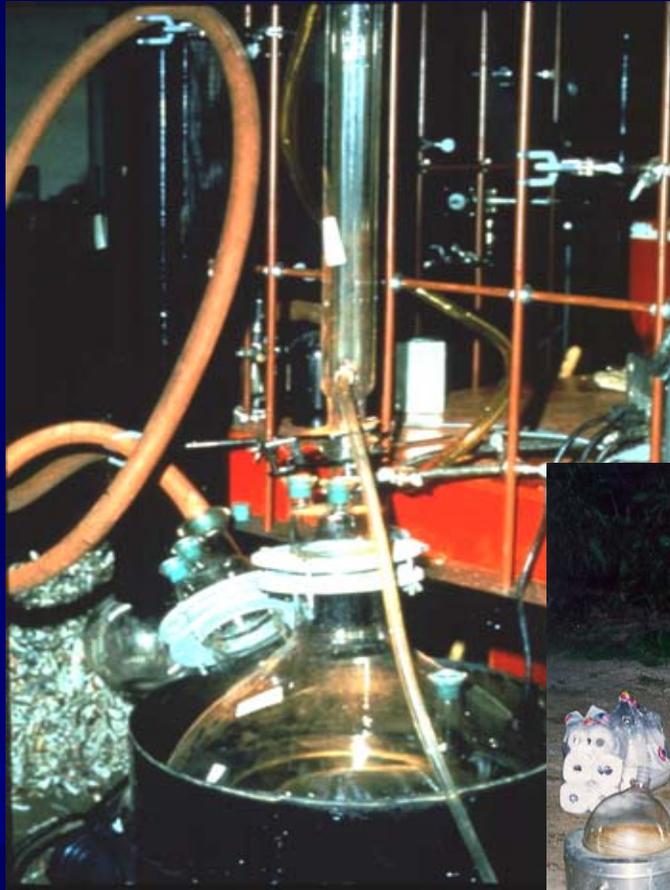
Yaba tablets

# CLANDESTINE LABORATORY

## WHAT ?

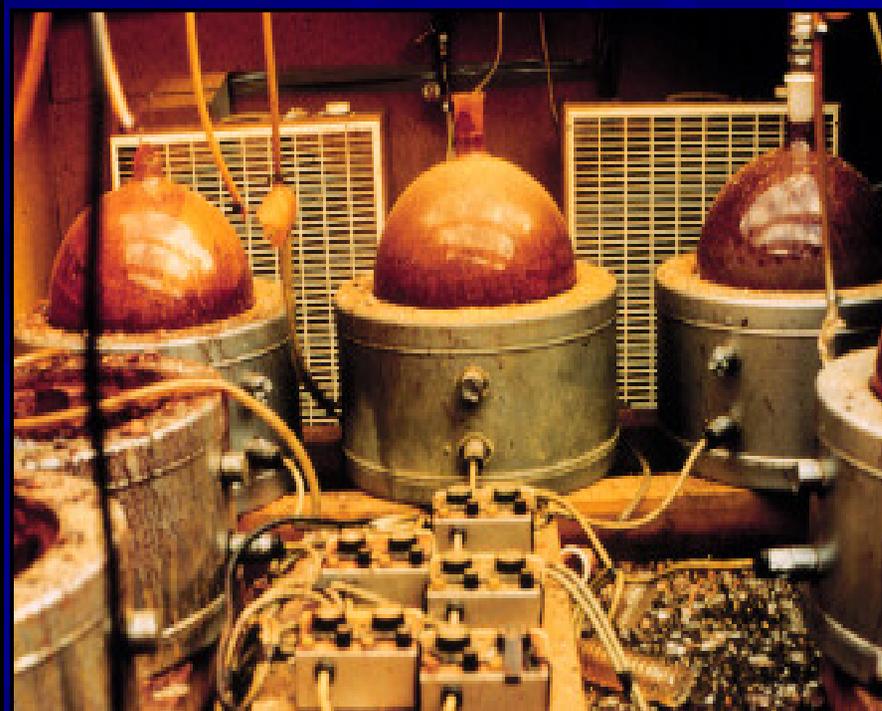
An illicit operation consisting of a sufficient combination of apparatus and chemicals that either has been or could be used in the manufacture or synthesis of controlled substances.

# METH CLAN LABS



# METH SUPER LAB

## 10+ LBS PER CYCLE



# SMALL TOXIC LABS (STL)

Ounce / gram quantities



# Heating Mantle and 3-neck Reaction Flask



# Electric Skillet and Canning Jar



# METH CLAN LABS

## WHERE?

- RESIDENTIAL – Single, multi-unit
- COMMERCIAL – Large / small
- RENTAL / LEASED – Motels, hotels
- MOBILE – Autos, trucks, boats
- URBAN / RURAL – Farms, woods, desert, groves, national parks
- BOTTOM-LINE.....**ANYWHERE**

# METH CLAN LABS

## WHO?

ANYONE FROM GRADE  
SCHOOL DROP-OUTS TO  
PhD'S, ORGANIZATIONAL OR  
INDEPENDENT, USERS & NON-  
USERS.

# CHEMICALS

- **Precursors**
- **Reagents**
- **Solvents**
- **Catalysts**

# PRECURSOR

- A chemical that is essential to the production of a controlled substance.
- Part of its chemical structure appears in the controlled substance structure.

# METH PRECURSORS

- PSEUDOEPHEDRINE/EPHEDRINE –  
direct-immediate precursor to  
Methamphetamine
- PHENYLACETIC ACID –  
precursor to P-2-P (intermediate)

# PRODUCT



# EPHEDRINE

RAW POWDER, OTC and EPHEDRA



# PSEUDOEPHEDRINE

## OTC PREPARATIONS



# PREP EXTRACTION



# Other Forms of OTC Pseudoephedrine

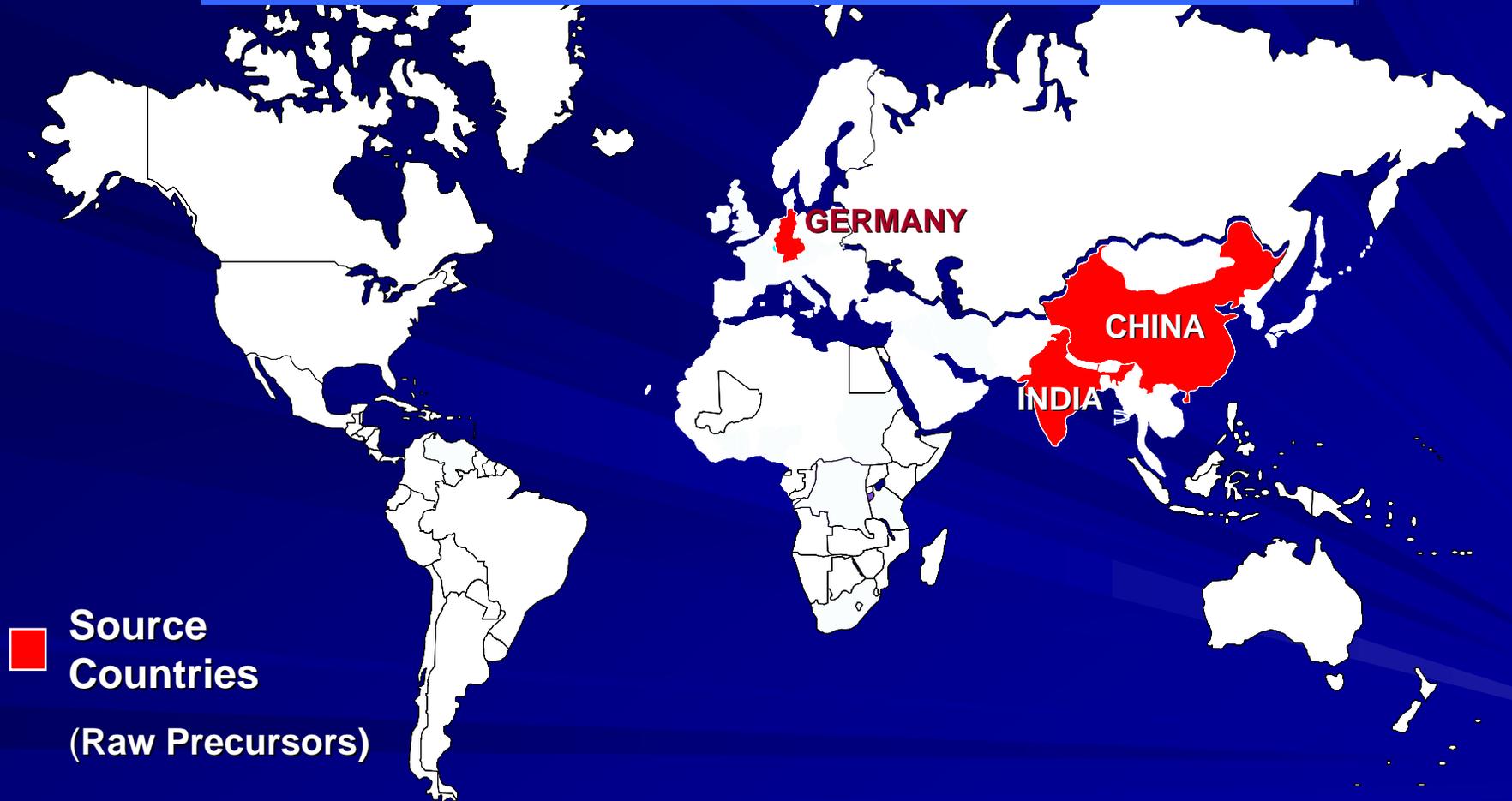


**Gel caps found in lab in Oregon**

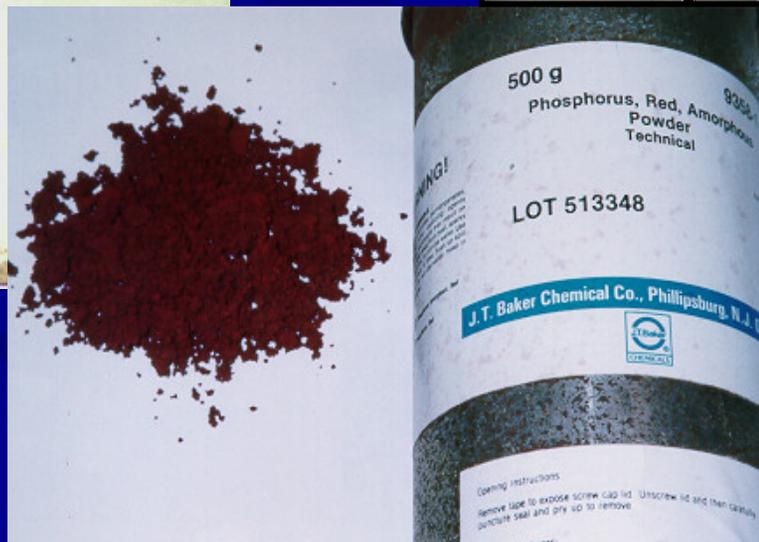
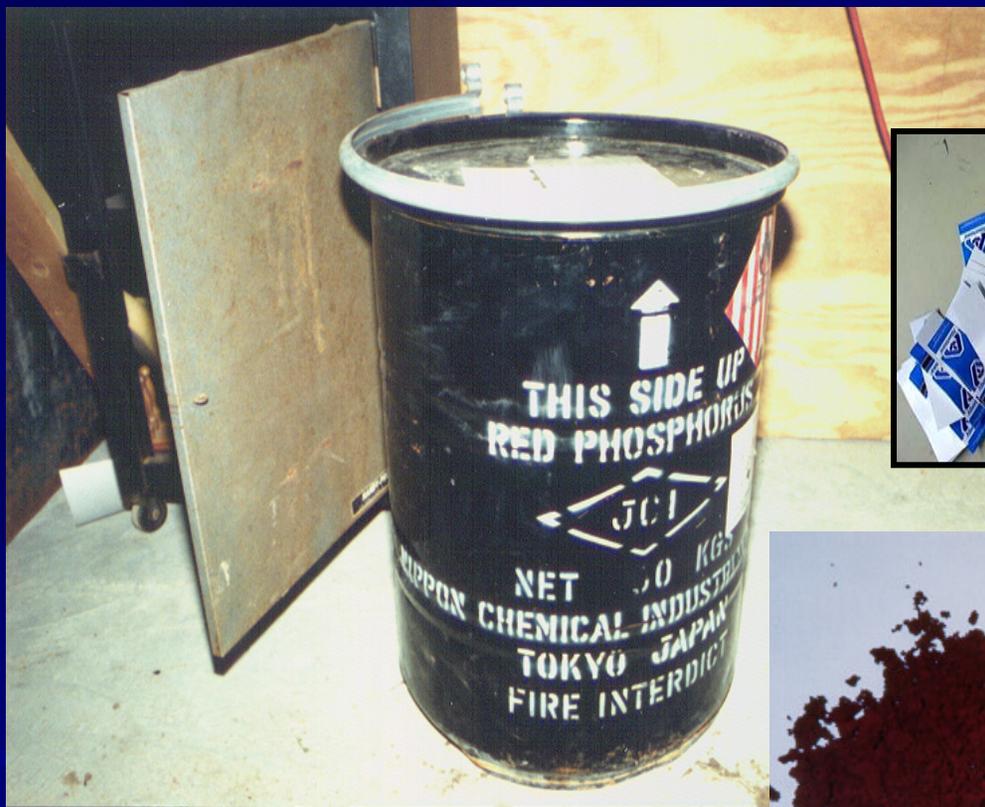


**Blister packs and syringes**

# EPHEDRINE / PSEUDOEPHEDRINE



# RED PHOSPHORUS



# IODINE



Iodine crystals



Tincture of Iodine





# Property Effects



# METHAMPHETAMINE IMPACT

## Innocent victims



## Environmental damage



Hotel room  
laboratory



Apartment fire



Dumpsite



Forest pond waste site

# DRUG ENDANGERED CHILDREN ABUSE AND NEGLECT



# ENVIRONMENTAL EFFECTS

- CONTAMINATION OF AIR, WATER, SOIL, STRUCTURES AND SURROUNDING AREAS.
- TOXIC EFFECTS ON PEOPLE, ANIMALS, PLANTS
- LIFETIME DISABILITIES, CHRONIC ILLNESS...DEATH
- COSTS!!!

# STATE LEGISLATION AND COMBAT METH EPIDEMIC ACT OF 2005

- CMEA national
  - Domestic sales / purchases
  - International component
- At least 42 States have OTC legislation
  - Most stringent Schedule III
  - Prescription
  - Pharmacy only
  - Behind the Counter

# STATE PRECURSOR LEGISLATION

## Oklahoma model

- Impose Schedule V-type controls on precursor chemicals

- Behind the Counter

## Oregon model

- Impose Schedule III-type controls requiring prescription

Oklahoma  
State  
Senate

Legislative  
Brief

June 2004

TROOPER NIK GREEN, ROCKY EALES AND MATTHEW EVANS ACT  
HB 2176  
PSEUDOEPHEDRINE AND METH LABS

#### Issue Background

The "meth lab" has become one of the most dangerous and difficult law enforcement challenges in Oklahoma. An overview of information and studies dealing with meth labs shows that methamphetamine is a potent form of the stimulant amphetamine and is a cheap and easily produced substance more addictive than crack cocaine. It is sometimes called "crack" or "crystal meth". The recipe is easy to follow with ingredients such as drain cleaner, cold medicines, batteries and even coffee filters that can be easily purchased over the counter or stolen from the shelves of stores. The ingredients are easily hidden and can fit in a suitcase or in the trunk of a car. While prescription sales of amphetamines are typically 2.5 to 15 milligrams per day, abusers on a speed binge often consume up to 1,000 milligrams every three hours. An intense wave of physical and psychological exhilaration, or "rush", takes place. In spite of the extreme damage of long-term use, the rush keeps the users doing anything and everything they can to get the drug. It is highly addictive, and users lose interest in any other aspect of their lives except getting their next hit. Withdrawal is extremely severe and may last months.

There are other public safety problems related to the illegal manufacturing of methamphetamines. Meth labs are dangerous to children and other people in the immediate vicinity of the lab. The ingredients for meth are toxic and extremely flammable when mixed, and the slightest spark can cause the lab to explode. The toxic byproducts of a meth lab pose another danger to the environment, and the cleanup is an expensive undertaking. In addition, the number of inmates incarcerated for drug-related offenses in Oklahoma has skyrocketed, adding another huge cost to the meth lab scene.

Meth lab raids and news reports concerning drug use are now a part of everyday life in Oklahoma. In the late 1990's, Oklahoma ranked 4th nationally for the number of labs seized each year. The number fell drastically due to state and federal laws regulating the chemicals needed for the recipe. But, in the 90's, a new recipe using the drug ephedrine began a new era for meth labs. In the numerous cases, Oklahoma once again found itself at the top of national statistics re-

lates to pseudoephedrine to the highest level. The result of their efforts is HB 2176 which creates the Trooper Nik Green, Rocky Eales and Matthew Evans Act.

#### Legislative History

The provisions of HB 2176 were designed to have a major impact on the ability to obtain pseudoephedrine in quantities for manufacturing methamphetamine or to produce substances in which pseudoephedrine was used in the manufacture of controlled dangerous substances. The bill also addresses the handling and release of substances created by meth-related crimes. The provisions:

1. Create a prohibition that shall be deemed to have been enacted for a violation of certain laws relating to manufacturing or attempting to manufacture a controlled dangerous substance or possession, use or sale of a substance listed in Title 63 of the Oklahoma Statutes as a controlled dangerous substance, or has a pattern of regular usage of a controlled dangerous substance and the violation of the statute was intended for the manufacture or attempt to manufacture or to maintain or facilitate the manufacture or pattern of usage of a controlled dangerous substance;
2. Make pseudoephedrine a Schedule I substance and provide that pseudoephedrine shall be made available only at a licensed pharmacy;
3. Require a person acquiring pseudoephedrine to show a photo ID and sign a written log to record receipt of the sale;
4. Require the amount of pseudoephedrine a person can acquire to be grams within a 30-day period, except during a cold and pseudoephedrine containing pseudoephedrine from the substance since they are not used in the manufacture of methamphetamine;
5. Allow for acquisition of certain products that are not used or cannot be used to produce methamphetamine;
6. Reduce the penalty of certain substances from 20 grams to 10 grams but all pseudoephedrine quantities of sales to use the product as a precursor to methamphetamine or another controlled dangerous substance;
7. Add a prohibition to the list of substances that are controlled in process with the intent to manufacture a controlled dangerous substance.

#### Summary of Action

As a result of HB 2176, businesses other than pharmacies were required to stop selling pseudoephedrine tablets on April 6, 2004. They were given a grace period of 30 days to purge a logbook with their quantity sold to control the distribution to the possession of their customers. They also participated in a licensed sales and to implement an in-store logging system to pseudoephedrine sales transactions. This grace period has now expired, and all purchases of the bill are now enforceable.

The Oklahoma State Bureau of Narcotics and Dangerous Drugs Control has authority to add to, delete or amend a controlled substance database that will ultimately track other pseudoephedrine sales in order to control the level of grams in a 30-day period for an individual without a prescription.

With the enactment of HB 2176, law enforcement in Oklahoma hopes to see major reductions in meth labs and the production of methamphetamine. The bill also provides for the creation of a methamphetamine "hotline" and drug users may be able to obtain the hotline with some assistance from law enforcement. The bill also provides for the creation of a methamphetamine "hotline" and drug users may be able to obtain the hotline with some assistance from law enforcement. The bill also provides for the creation of a methamphetamine "hotline" and drug users may be able to obtain the hotline with some assistance from law enforcement.

A money note: The Trooper Nik Green, Rocky Eales and Matthew Evans Act, which was enacted on June 6, 2004, creating law enforcement officers, cited some evidence of a violation in the production of methamphetamine in the state, was given the most priority of this bill. The law went into effect. If successful, Oklahoma law enforcement would be a great step for the state.

# COMBAT METHAMPHETAMINE EPIDEMIC ACT OF 2005

- March 2006. legislation was passed by Congress and signed into law to address the methamphetamine issue at the federal level.
- **RETAIL COMPONENT:** Placed sales and purchase limits on OTC products containing phenylpropanolamine, ephedrine and pseudoephedrine.
- **INTERNATIONAL COMPONENT:** Requires the Department of State to identify the five largest exporting and importing countries of pseudoephedrine and ephedrine with the goal of certifying the countries' efforts to insure that diversion is kept to a minimum.

# IMPORT / EXPORT CONTROLS (QUOTAS)



# METH CLAN LABS IN MEXICO



# MORE ISSUES

- **TRAIN - LAW ENFORCEMENT**
- **TRAIN - FORENSIC PERSONNEL**
- **EDUCATE - LEGISLATORS**
- **EDUCATE – EMERGENCY PERSONNEL, HEALTH PROFESSIONALS & SOCIAL SERVICES**
- **EDUCATE – THE PUBLIC !**

# TRAINING AND PERSONAL PROTECTIVE EQUIPMENT



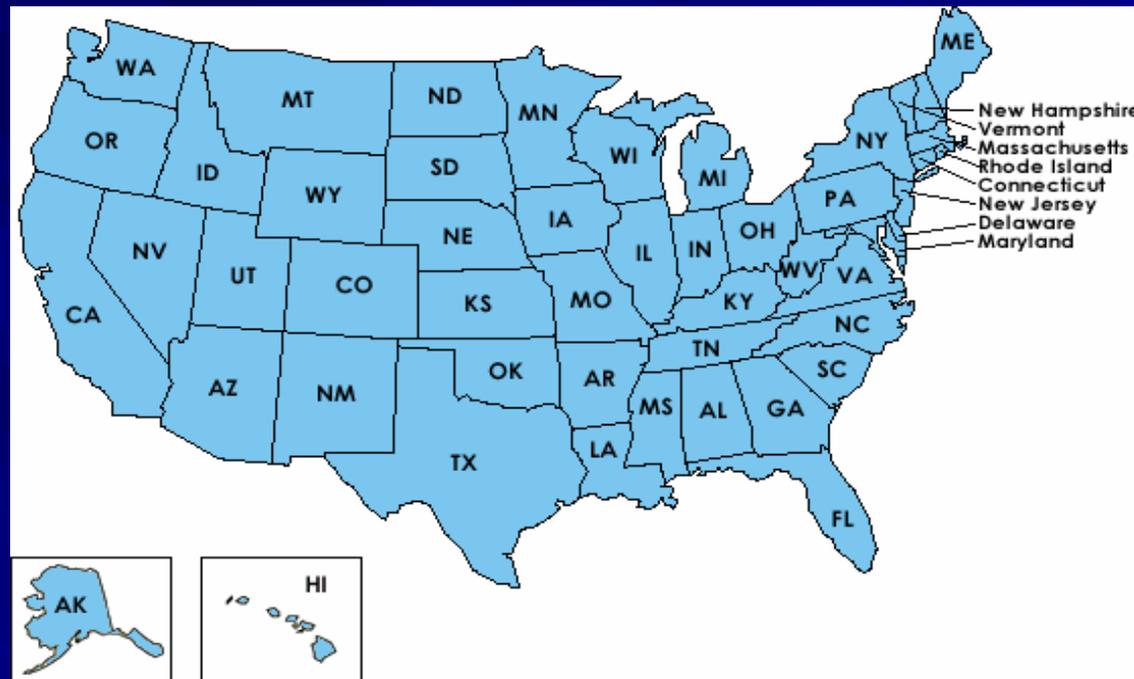
- Training is critical to keep law enforcement safe
- SCBA worn to protect from dangerous chemical fumes
- Chem suit worn to protect from potential exposure to dangerous chemicals



# RESOURCES ISSUE

- Problem consumes law enforcement, health department, medical services, social services and environmental department resources.
- User population
  - Reduction in productivity
  - Criminal activity

# National Clan Lab Registry



- Found on DEA's website: [www.DEA.gov](http://www.DEA.gov)
- Site contains addresses reported by a variety of law enforcement agencies where chemicals or other items related to methamphetamine production were found or dumped.

**Thank you**



**Scott Masumoto**  
**Special Agent/Staff Coordinator**  
**Office of Diversion Control**  
**Synthetic Drugs and Chemicals Section**