# Methamphetamine:
## Trends and Issues, Minnesota Response

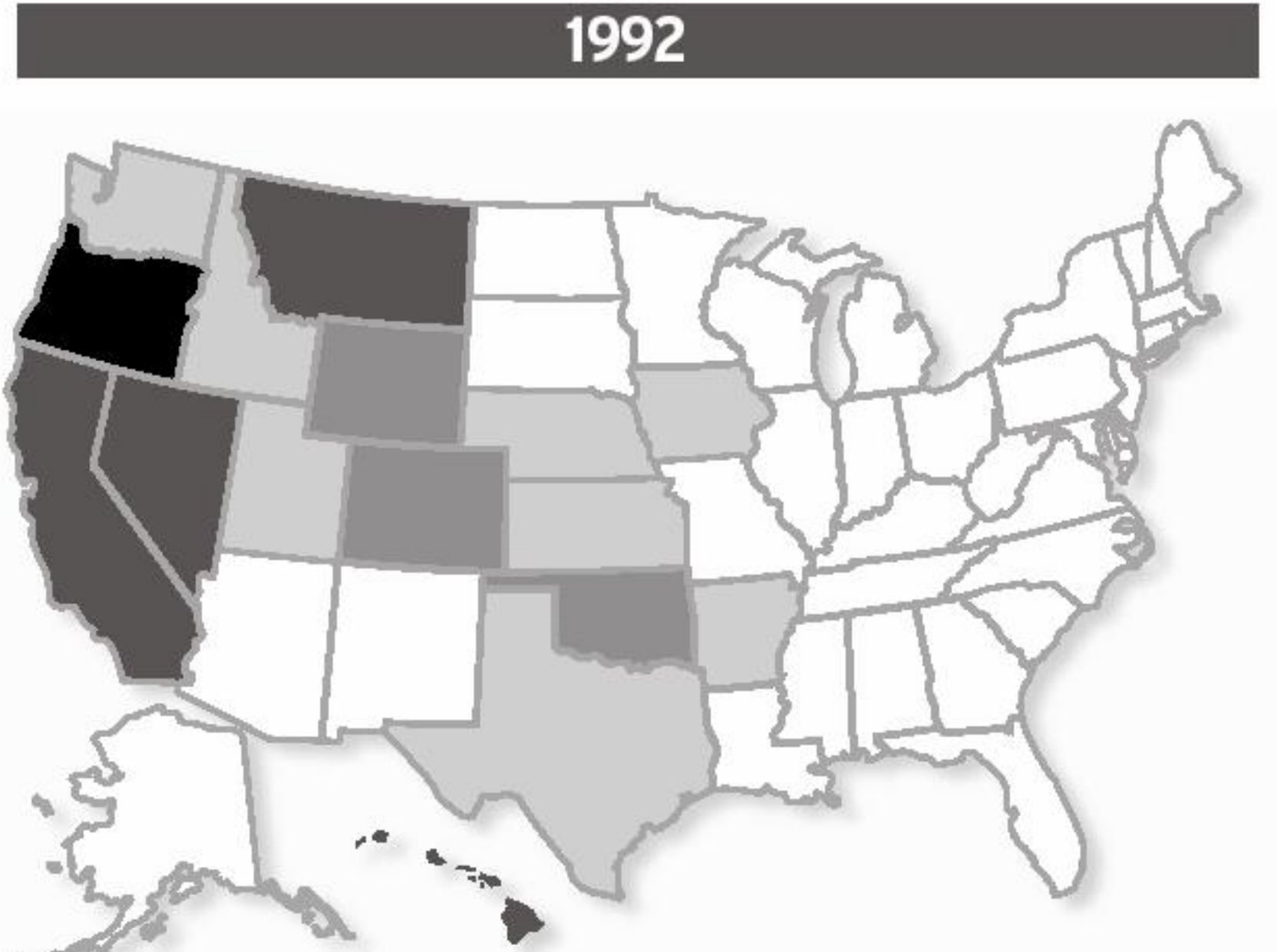
Minnesota Department of Health
Methamphetamine Program
September 2005

# Trends and Issues

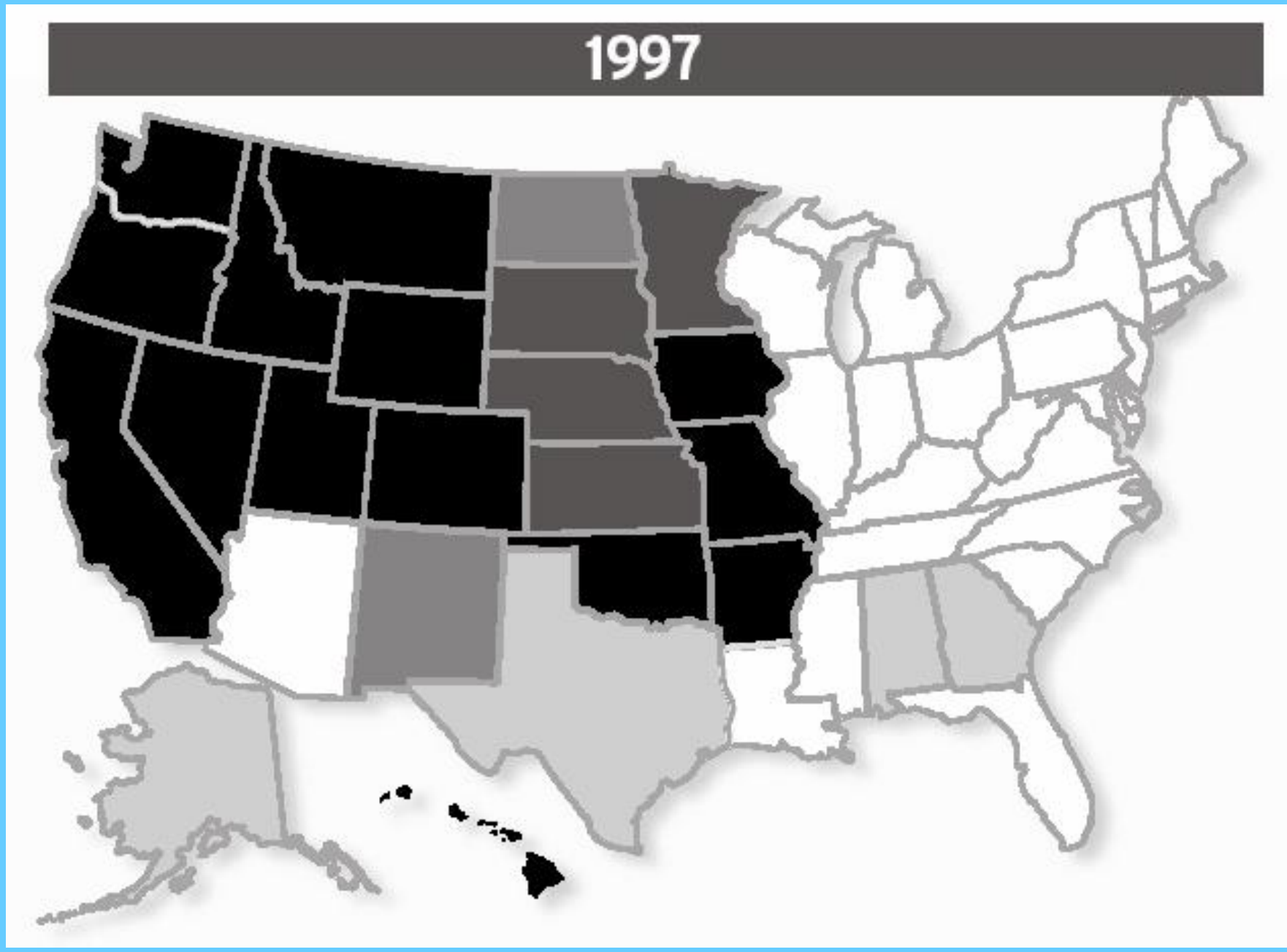
# Meth is:

- Devastating for users,
- Source of a serious crime problem,
- Threat to children who live with users and makers,
- Potentially harmful to indoor and outdoor environments,
- Massive drain on public resources and
- A major public health and social issue

*Question: How does Meth fit into the context of existing substance abuse problems?*




Rising rates for admission to rehab


1997

# 2002

DERRIK QUENZER, STEVE SUO/THE OREGONIAN

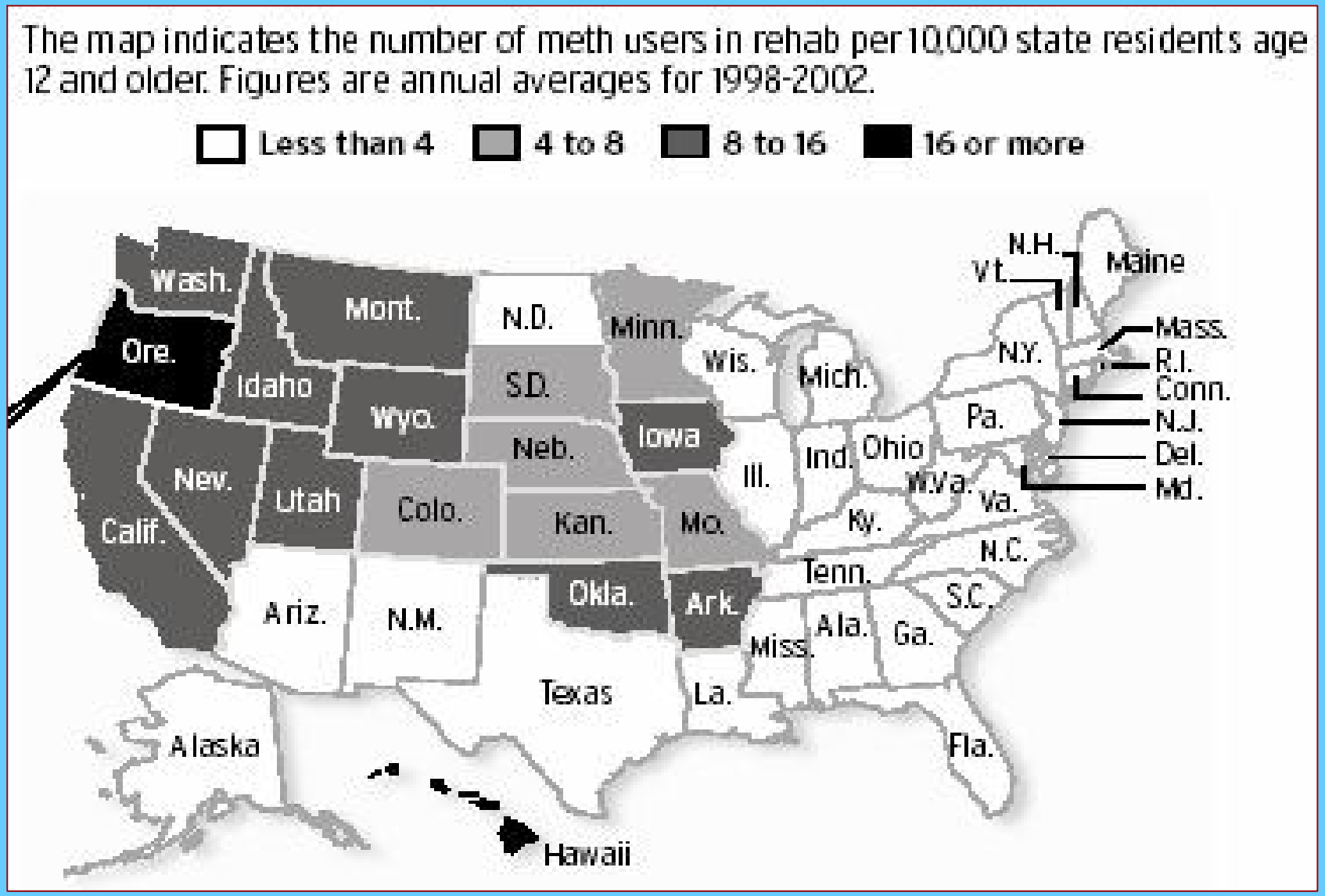
# Administration View Changes …

- “Meth is the No. 1 (illegal) drug in rural America – absolutely, positively, end of question.”
  - Rusty Payne, DEA Spokesman, August 2003.
- “Meth abuse is not only a regional problem but a serious and growing national health problem.”
  - SAMHSA Administrator Charles Curie, August 2004.
- "I think we would all agree Meth is the most destructive, dangerous, terrible drug that's come along in a long time,“
  - Deputy Drug Czar Scott Burns, July 2005.

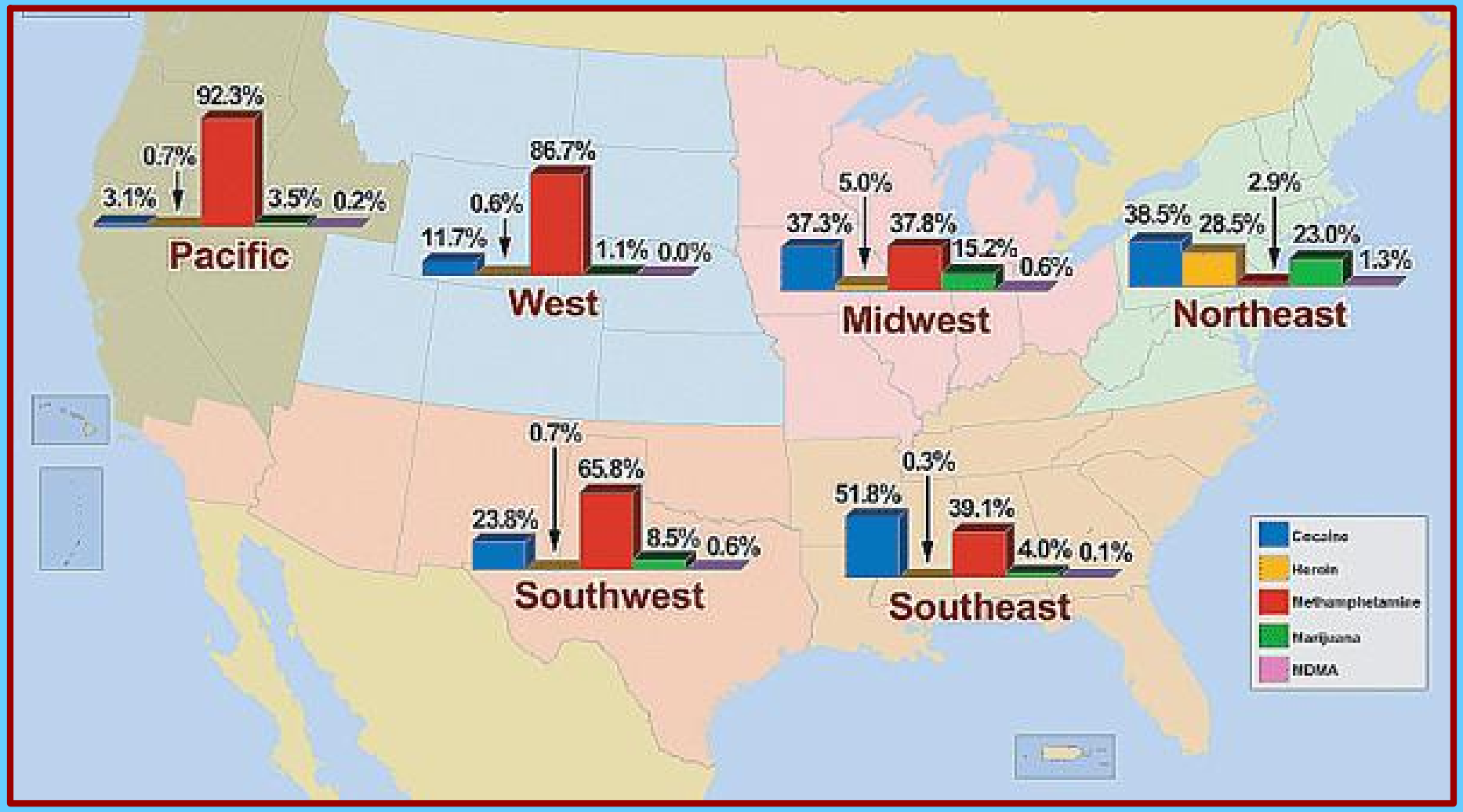
# As Awareness, Numbers Increase

- 2000:
  - An estimated 8.8 million people or 4.0% of the population have tried Meth.
- 2002:
  - An estimated 12.4 million people or 5.3% of the population have tried Meth.
  - National Household Survey on Drug Abuse (NIDA, 2004)]

# 1998-2002: More than 90 percent treated for Meth addiction lived west of the Mississippi



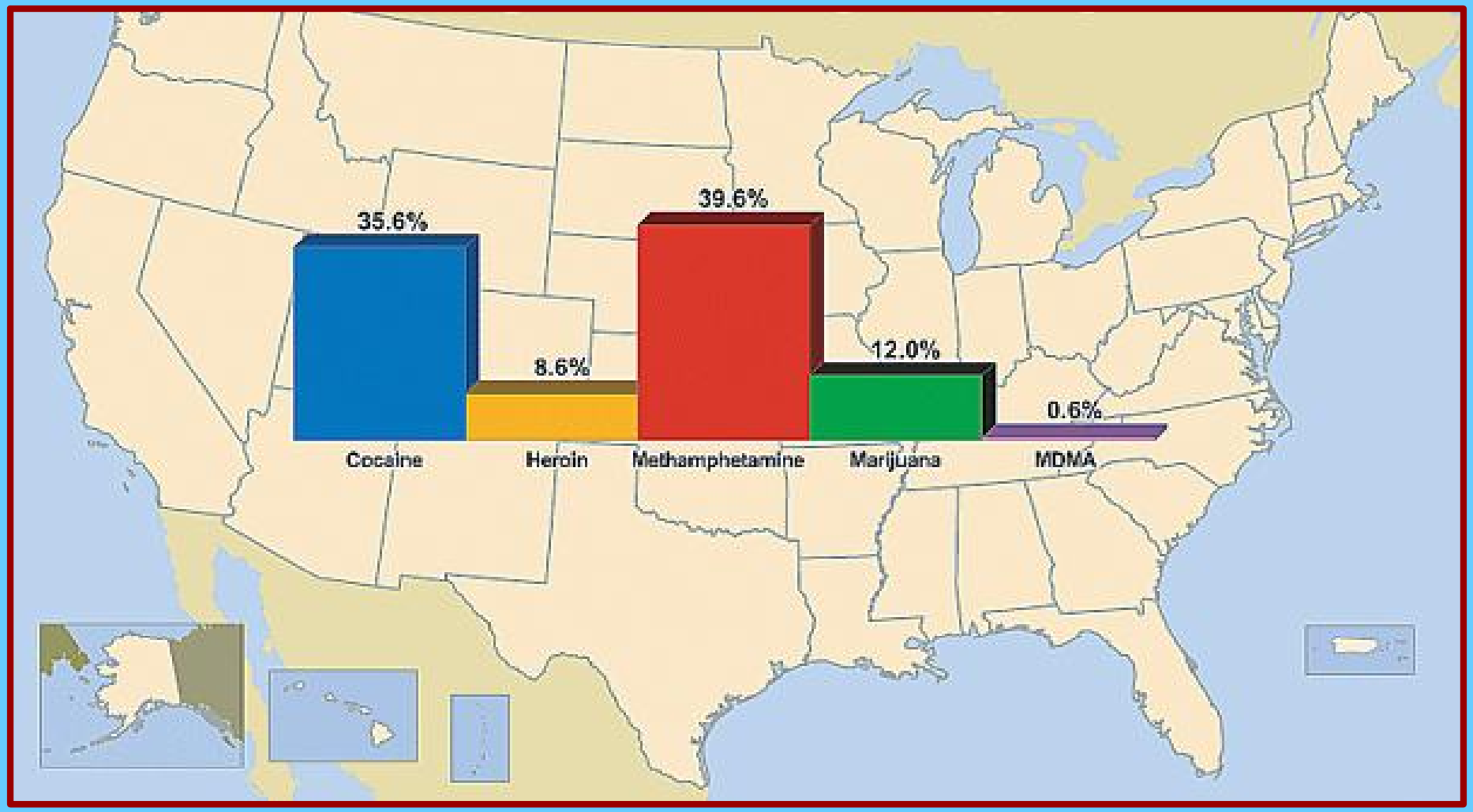
# National Drug Intelligence Center
# National Drug Threat Assessment 2005 - February 2005




Greatest Drug Threat by Region - Percentage of State and Local Agencies Reporting

National Drug Intelligence Center

National Drug Threat Assessment 2005 - February 2005

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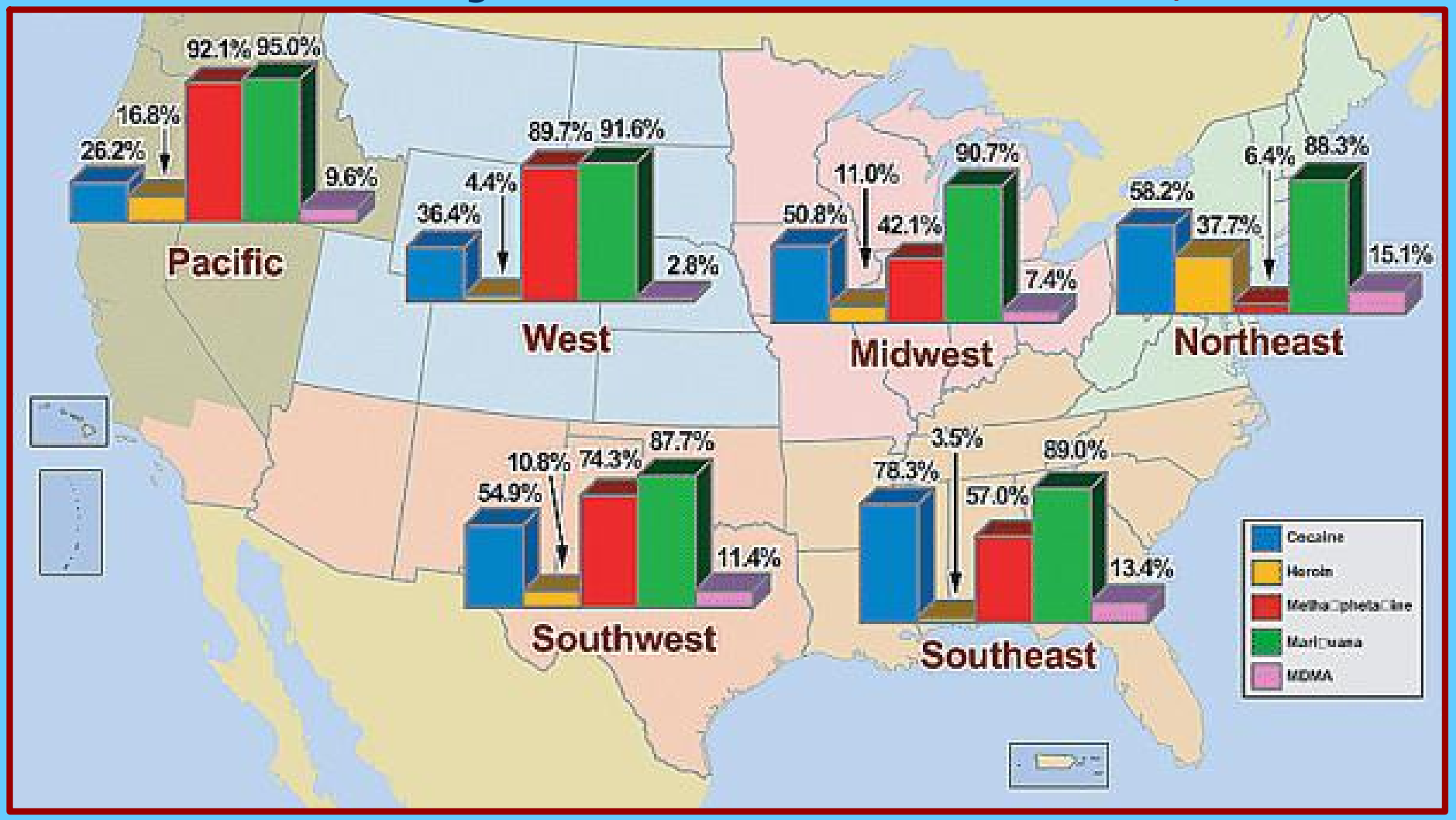



Regional Drug Availability - Percentage of State and Local Agencies Reporting High Availability

# Percentage of Adult Arrestees Testing Positive for Methamphetamine in 2002 in Several Cities

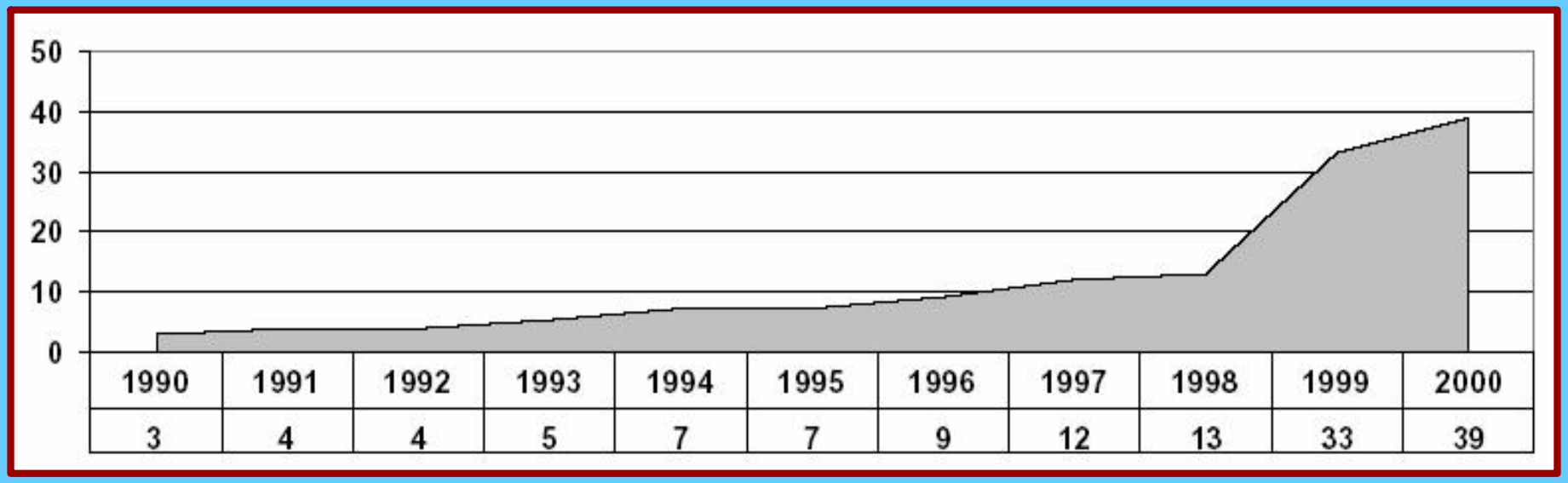
(NIDA, 2004)

| City | % Males | % Females |
|---|---|---|
| Honolulu | 43.8 | 54.0 + |
| San Diego | 36.7 | 42.0 |
| Phoenix | 38.5 | 47.0 + |
| Los Angeles | 14.8 | |
| Seattle | 10.9 | |

# Percentage Distribution of Primary Substance Abuse by Gender for Public Clients Receiving CD Treatment CY 2003-2004 (MN DHS 2/2005)

| Primary Substance | Male | Female | Total |
|---|---|---|---|
| Methamphetamine | **12.1** | **18.6** | 14.2 |
| Alcohol | 48.8 | 41.3 | 46.4 |
| Cocaine | 2.7 | 3.3 | 2.9 |
| Crack | 10.0 | 12.9 | 10.9 |
| Marijuana | **21.6** | **16.1** | 19.8 |
| Heroin | 2.6 | 2.7 | 2.7 |
| Other | 2.3 | 5.1 | 3.2 |
| Total | 100.0 | 100.0 | 100.0 |
| | | | |
| No. Admissions | 29,369 | 14,055 | 43,424 |

# Global seizures of Amphetamine Type Stimulants (excluding ecstasy) in Metric Tons – 1990-2000




"Increased awareness and law enforcement … have had limited impact. The market is still expanding. Not restricted to specific geographical areas … the manufacture of synthetic drugs can easily occur close to the place of final consumption. Clandestine labs are easy to set up and recipes are readily available which reduces impact of law enforcement and results in a continuing spread of production worldwide."

Global Illicit Drug Trends 2002

# METH: Not Just Any Speed

- Meth is an powerfully addictive Central Nervous System Stimulant, chemically similar to Amphetamine
- Snorted, smoked, injected, ingested
  - injected (10-20 min, C / 4-6 hrs, M)
  - smoked (5-20 min, crack / 8-12 hrs, ice)
  - excretion (50%,1 hr., C / 50%, 12 hrs, M)
- Meth lasts in the body and brain longer, and at higher levels than Cocaine or Amphetamine, may accumulate in the body.

# Meth Variations

- l-Meth (levo-M) is the active ingredient in OTC products (such as VICKS inhalers). Used as directed, it poses no risk to health; does not have substantial addictive qualities.
- dl-Meth (dextro-levo-Meth) is produced using the P2P method (preferred method late 1970s to early 1980s.) Production and use of dl-Meth, less potent than d-Meth, is limited but still present.
- d-Meth (dextro-Meth) is produced using ephedrine/ pseudo reduction methods. It is a controlled substance and potent CNS stimulant that enters the brain easily. Highly addictive, d-Meth is the most potent, widely abused form of Methamphetamine.
- NDIC National Drug Threat Assessment 2005

# Route of Administration

- Route of administration is strongly related to rate and rapidity of addiction; severity of health effects
- Meth can be smoked, injected, snorted (inhaled) or ingested (eaten or in liquid).
  - Smoking works best.  The high produced is most effective, lasts longer, works faster and does more harm.
  - Injecting is second best,delivering the biggest dose but less effectively than smoking.
  - Snorting (inhaling) and ingesting (eating or taking in liquid) are less effective.

# “A Forest Fire of Brain Damage”

- Thompson et al (Neuroscience, 6/30/04) in the first high-resolution MRI study of meth addicts found:
- 11%  of tissue in limbic region destroyed
- 8 %  of tissue in hippocampus destroyed, comparable to deficits in early Alzheimers
- Meth addicts (10 year smokers) scored significantly worse on memory tests than healthy controls
- Inflamation of nerve fibers resulted in 10 percent increase in brain size; however this white matter was not dead; may recover with abstinence

# Meth Associations:

- Poly-substance abuse
- Abuse and violence
- Depression and suicide
- Paranoia, aggression, psychosis
- Personal and property crime
- Rapid physical and psychological disability
- Unrestrained sexual behavior “outside the norm”
- Abuse and abandonment of children
- Chemical and explosive danger for children, others
- Unexpected addicts: *so many* women, very young, very busy, sexual adventurers, “good kids,” self-medicating, long-time alcoholics or other-abusers ...

- Among emerging challenges:
  - Courts and corrections
  - Rising syphilis, HIV/AIDS rates
  - Length of treatment need vs. current practice
  - Science vs. unexplained illness and disability
- We continue to struggle with:
  - Equal access to care
  - Autonomy vs. intervention
  - Resistance to change (and some turf issues)
  - Reluctant  collaborations
  - Resources, resources, resources

# Minnesota Response

(a work in-progress)

# Minnesota Multi-Agency Methamphetamine Taskforce

- U.S. Drug Enforcement Administration (DEA)
- MN Depts. Agriculture, Health, Human Services, Natural Resources, and Transportation
- MN Department of Public Safety:
  - Div. of Emergency Management
  - Bureau of Criminal Apprehension
  - State Fire Marshall Division
- Minnesota Pollution Control Agency (MPCA)
- MN Local Public Health Association
- MN Community Health Services

# Local Collaborative Response:

(Local planning and decision making, with state, federal and private assistance i.e., use any good free stuff you can get.)

- Why local response?
  - When we started in 1999, this mainly rural problem wasn't a statewide priority
- Benefits:
  - Local buy-in
  - Better compliance
  - Protocols and programs based on local needs and resources

# Elements of Local Response

- Taskforce involving all local agencies, as well as Elders and other community members
- Support for local law enforcement
- Prevention, education and awareness efforts
- Task-specific training, equipment, protocols
- Child treatment and protection protocols
- Safe cleanup required and performed
- Provision of meaningful CD treatment
- Defined roles and responsibilities for all

# Methamphetamine Response Categories:

- Law Enforcement
- Awareness, Education, Prevention, and Training
- Child Protection
- Remediation and Removal
- Treatment

# Some Meth-Related Law Enforcement Functions

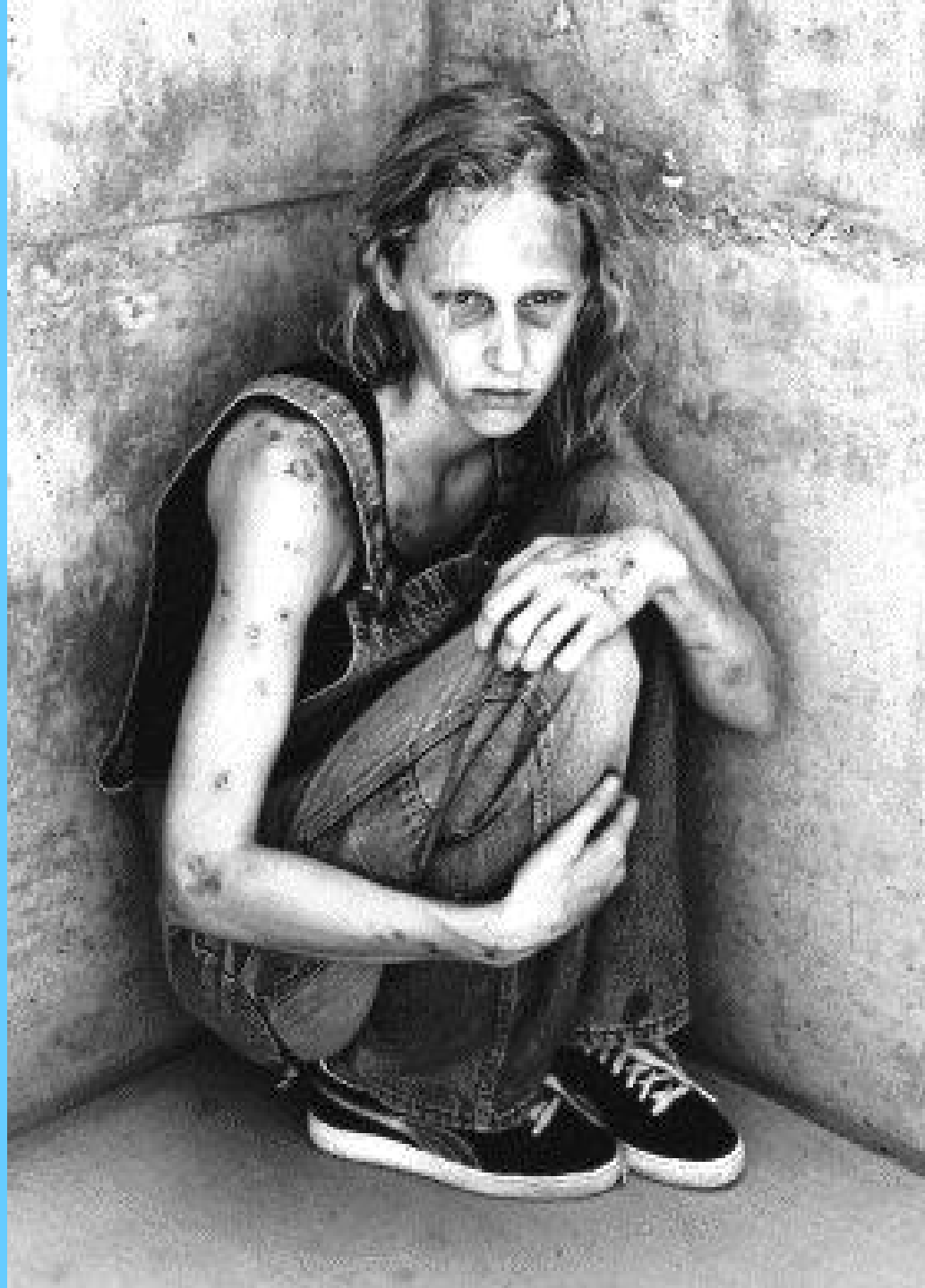
- All of the cop stuff, plus:
  - Child protection, intervention and educational planning and programs.
  - Reporting of labs, dumps and child involvement to other agencies.
  - Keeping first responders and others safe through training, safe practices and decontamination of chemically exposed.

# Local Meth Taskforce Goals for Awareness, Education, Prevention

- Describe the problem (in context of abuse).
- Increase awareness among all stakeholders.
- Reduce demand for the drug.
- Reduce access to drug and precursors.
- Define roles and responsibilities.
- Locate and use all existing resources.
- Enhance safe local response.
- *CREATE, CAUSE, and INSPIRE* State and Local Policy Change and Collaboration.

# Child Protection Goals

- Prevention
- Law Enforcement
- Collaboration
- Assessment, Evaluation and Treatment
- Lab cleanup
- Permanency



# Evaluation of Meth-Affected Children

(Olmsted County, Mayo Clinic, California Drug Endangered Children's Project

*Recommendations:*

- On-Site Assessment of Children
- Site Assessment
- Immediate Medical Care (if needed)
- Baseline Examinaton (MN: 24-48; National Protocol 6 hrs)
- Follow-Up (Children not returned pending evaluation, investigation and decontamination of the residence)
- Placement (within 72 hours)

# Part of the strategy is assessment of child and home

- Physical condition of the children
- Child's access to drugs or chemicals
- Living conditions
- Play area
- Food supply
- Children's bedroom or sleeping arrangements
- Bathroom conditions

- Aftercare
- Family assessment
- Relative placement issues
- Placement assessment
- Family reunification strategies
- Follow-Up *

*Study of 78 children from 37 meth labs (Kiti Frier, DEC)

- 23 % positive for meth
- 33 % showed developmental delays
- 51% determined neglected or abused
- 95 % received no psychological treatment or follow-up

# NATIONAL ALLIANCE

## FOR DRUG ENDANGERED CHILDREN

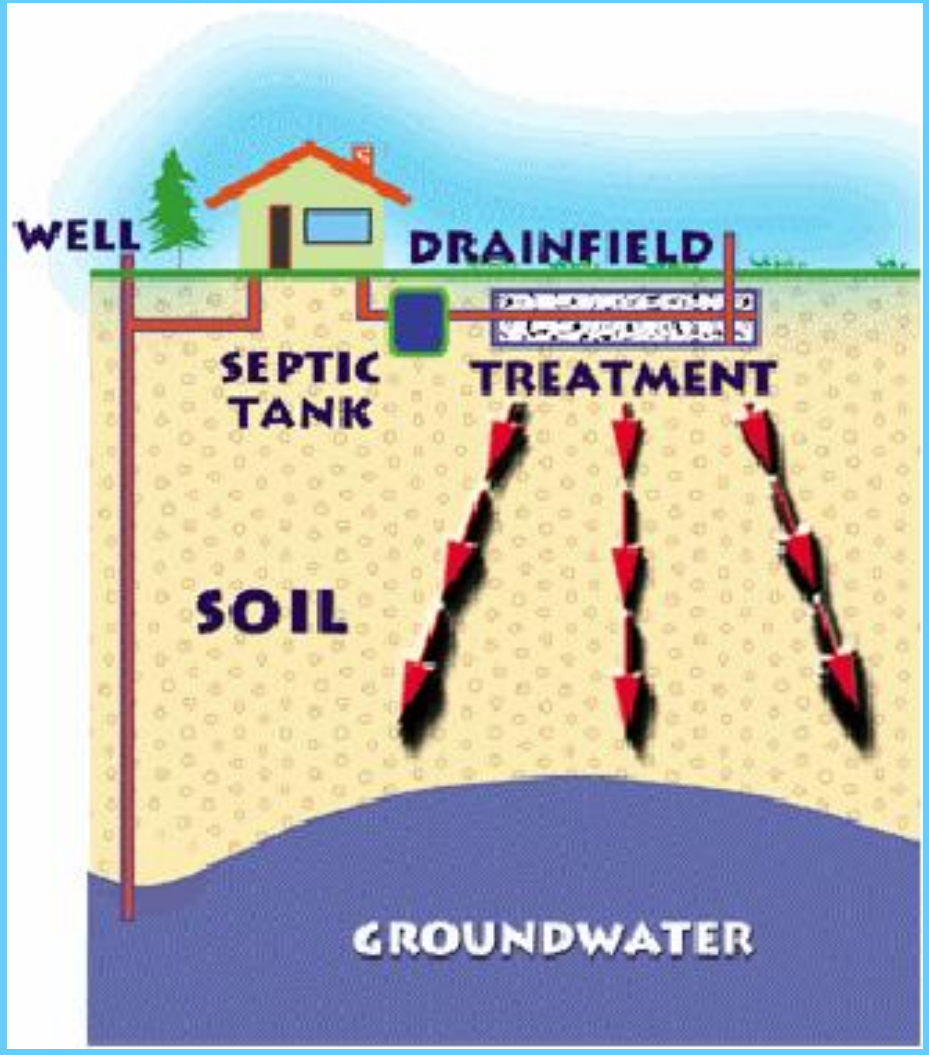
Rescue. Defend. Shelter. Support.

# Regarding Meth Lab Cleanup

- Why is cleanup more than removal?
- Who pays for cleanup (victim vs. criminal)?
- Who pays, if innocent party must be removed?
- Who does notifications and who is notified?
- Who coordinates among owner/occupants, authority and contractor?
- What do we do with vehicle labs? With contents of home (personal vs. real)? With out-of-doors?
- How clean is clean and what qualifications or training are required of cleanup staff, labs?
- How should various waste be disposed?

# Lab Chemicals Potential Impact

- Indoor Air
- Structures and Contents
- Soils
- Surface Water
- Groundwater



# What No One Knows

- At what level and where do meth residues pose a health threat?
- Toxicity for each exposure route and bioavailability of chemical forms
- Other chemicals of concern
  - current CDC study
- Mobility of residues
- Clear need for
  - chronic low level exposure studies
  - health-based standard

# What We Know

- Meth wipe sampling does not provide the total mass of meth in that area
- Samples from horizontal (uncleaned) surfaces will be higher than vertical surfaces
- Meth wipe sampling results vary
  - by material
  - by sampler

# What We Will Learn

- How to maximize meth residue removal by cleaning
- If painting encapsulates meth residue
- How to best interpret wipe sampling data of various building materials
- Does meth residue
  - chemically breakdown
  - migrate to surfaces over time

# Current Guidance

- No national consensus
- Not health-based
- Meth residue is used as an indicator contaminant

# Minnesota Research Outcome

- Process-based cleanup may be more reliable than remediation based strictly on sampling results

# Cleanup Process

- Ventilate
- Discard permeable materials
- Scrub walls, floors, ceilings x 2 or 3
- Clean ventilation system
- Inspect / clean plumbing
- Ventilate
- Seal w/ oil-based (?) coating
- Ventilate

# Methamphetamine Treatment

- Individual Assessment of:
  - Drug use history
  - Medical and psychological state
  - Social and family situation
- Medical and Psychological Detoxification
- Cognitive/Behavioral Chemical Dependency Treatment (as part of a continuum of services)
  - Inpatient or
  - Supervised/Structured Outpatient
- Step-Down to:
  - Halfway house or
  - Very structured independent living
- Aftercare

# How is Meth addiction like addiction to other drugs?

(Dr. Elizabeth Faust, testimony to ND legislature June 2004.

- brain-based disorder with both genetic and environmental factors
- progression of usage from recreational to addiction – not everyone is addicted with first use
- chronic illness with potential for relapse and long term need for recovery management
- often complicated by the presence of other mental or physical illness
- TREATMENT WORKS

# How is Meth addiction different than other addictions?

(Dr. Elizabeth Faust, testimony to ND legislature June 2004.

- High is stronger, bester, faster, lasts longer
- Onset of dependence more intense and rapid
- Relatively cheap and plentiful
- Synthetic – can be made anywhere
- Cognitive impairment lasts longer and some cognitive impairment may be permanent

# How is Meth addiction different than other addictions?

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- Most important difference: “Telescoping”
  - “Like fast forwarding a movie”
  - Stages of progressive addiction and loss of function move much more quickly than alcohol and other drugs –sometimes months compared to decades
  - Severe consequences in young people in critical stages of their development, with loss of function in emotional development, education, relationships, employment, parenting

# Summary:

- The dose makes the poison.
- Prevention is cost-effective.
- Treatment saves lives *and* money
- Good policy doesn't come easy.
- Collaboration is magic.
- Every day counts.