

COMMUNITY CRISIS:
Public Health's Role in the
Methamphetamine Epidemic
"Partnering to Confront the Issue"

September 26, 2006

Sponsored by:

Health Resources and Services Administration
Maternal and Child Health Bureau
Office of Rural Health Policy
Bureau of Primary Health Care
Indian Health Service



CAPT Stephanie Bryn, MPH

Director, Injury and Violence Prevention
Health Resources and Services Administration
Maternal and Child Health Bureau

WEBCAST GOALS

1. Raise **awareness** about the Meth Epidemic
2. Describe the role of **public health and safety professionals** and how they can be involved at local and state levels
3. Showcase **highly functioning coalitions** and networks addressing the Meth Epidemic
4. Point out resources to use for additional **education, training and programming**

"I think we would all agree that meth is the most destructive, dangerous, terrible drug that has come along in a long time."

Scott Burns, July 2005
Deputy Director for State and Local Affairs
White House Office of National Drug Control Policy

Montana Meth PSAs

- http://www.montanameth.org/ads_television.aspx
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- Funded by a grant from the Thomas & Stacey Siebel Foundation

Methamphetamine: Drug, Trends and Public Health Concerns



Minnesota Department of Health
Methamphetamine Program
September 2006

Drug



Meth: Not Just Any Speed

- Meth is a powerfully addictive Central Nervous System Stimulant, chemically similar to Amphetamine.
- But Meth does it better:
 - injected (10-20 min, C / 4-6 hrs, M)
 - smoked (5-20 min, crack / 8-12 hrs, ice)
- Meth lasts in the body and brain longer, and at higher levels than CA or AMP.

Meth vs. Cocaine

Thomas Freese PhD, UCLA ISAP, 2006

- Cocaine half-life: 1-2 hours
- Meth half-life: 10-12 hours
- Cocaine paranoia: Lasts 4 -8 hours following drug cessation.
- Meth paranoia: 7-14 days
- Meth effects: May require medication or hospitalization. Some effects may not be reversible.

Meth Changes Over Time

- **I-Meth** (levo-M) is the active ingredient in products such as VICKS inhalers. Used as directed, it poses no risks to health.
- **dl-Meth** (dextro-levo-Meth) was common from the late 1970s to early 1990s. It is less potent than d-methamphetamine.
- **d-Meth** (dextro-Meth) 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 Meth. (NDIC National Drug Threat Assessment 2005)

There is no single profile of a Meth user.



Drug, dose, disease, method of use and individual characteristics all play a role.

Route of Administration

NIH, "Treatment for Stimulant Use Disorders", TIP 33, 1999.

- The way meth is used affects speed of delivery, intensity of the high, and amount delivered to brain.
- Meth can be smoked, injected, snorted, ingested, or absorbed (rectally or vaginally).

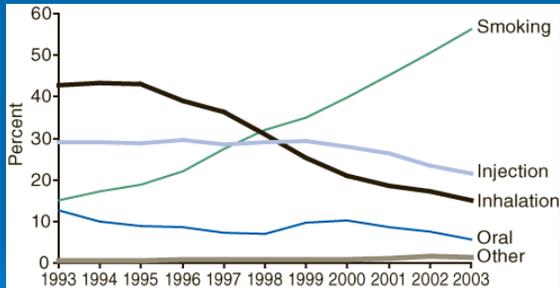


Route of Administration

NIH, "Treatment for Stimulant Use Disorders", TIP 33, 1999.

- **IMMEDIATE:** **Smoking** delivers the most immediate 'rush'. The rush and high are more powerful and last longer than all other methods. It is also the most impure method.
- **IMMEDIATE:** **Injecting** is a close second, delivering the biggest dose to the brain but less effectively than smoking.
- **2 to 3 MINUTES:** **Snorting** is rapid but does not produce the same rush or last as long.
- **1 to 3 HOURS:** **Ingesting** is by far the slowest and least effective method.

Percent of Primary Meth/Amp Admissions, by Route of Administration: 1993-2003 (DASIS, 3/2006)



TEDS collects information on the route of administration for each reported substance. In 1993, the most frequent route of administration used by primary meth/amp admissions was inhalation (42 percent), followed by injection (29 percent), smoking (15 percent), oral (13 percent), and other (1 percent). By 2003, the most frequent route of administration was smoking (56 percent), followed by injection (22 percent), inhalation (15 percent), oral (6 percent), and other (1 percent).

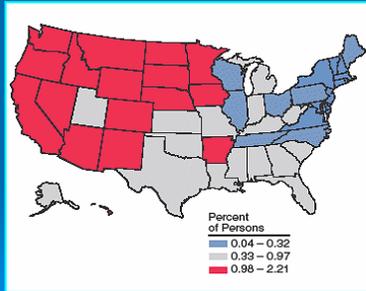
Although the smoked high may be better ...

Among HIV Positive MSM

Semple and Patterson, Drug and Alcohol Dependence, 2004

- Injectors more likely to be Caucasian, bisexual, homeless, divorced or separated, and have low educational attainment.
- Injectors reported more years of meth use, greater frequency, higher dose, more social and health problems, more risky sexual behavior, and higher rates of STDS and Hep. C.

Trends

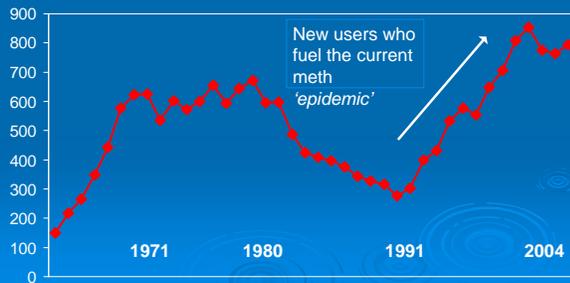


Meth Use, Past Year, Persons Aged 12 or Older, by State: 2002-2004, (NSDUH, 2006)

Meth Initiation, 1965 to 2004

Carnevale and Associates, SAMSHA

Number of First Time Users, in Thousands

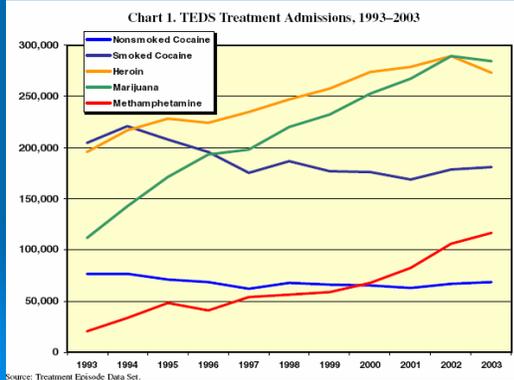


Drug and Alcohol Services Information System (DASIS)

January and July 2006

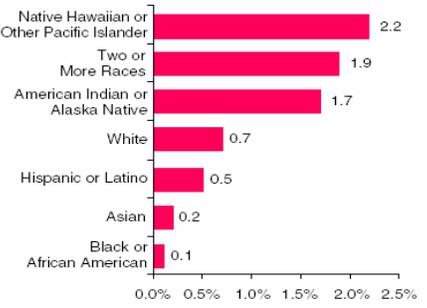
- From 1993 to 2003, treatment admission rates for primary meth/amp abuse increased from:
 - 13 people out of every 100,000 to 56 admissions per 100,000 population 12 or older.
- In 2004, the national treatment admission rate for all (primary, secondary or tertiary) meth/amp admissions was:
 - 85 admissions per 100,000 persons aged 12 or older or 12% of all admissions for substance abuse Tx at public expense

Meth treatment in context...('93-'03)

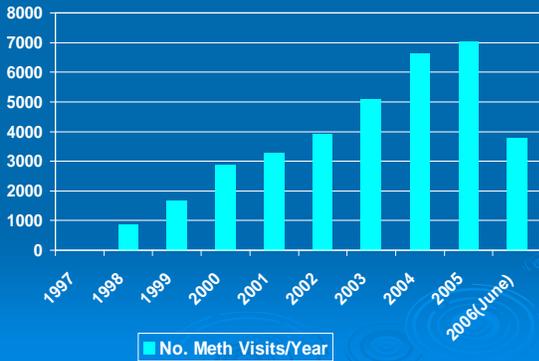


RACE

Figure 3. Methamphetamine Use in Past Year among Persons Aged 12 or Older, by Race/Ethnicity: 2002, 2003, and 2004



IHS-Wide Encounters for Meth



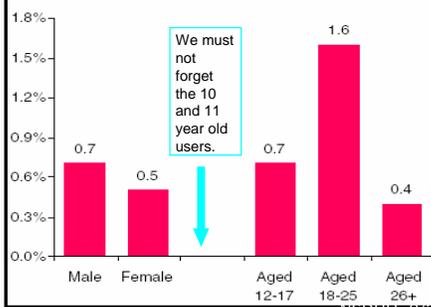
Counting Meth-related Visits

- Patients don't say they are using meth
- Drug-testing not done on every patient
- Reason for visit (diagnosis) is usually medical, trauma, or mental health
- People using meth also use other drugs and alcohol
- Diagnosis of "drug abuse" is common

(MASIS, June 2006)

- One of the biggest problems in bringing attention to the meth problem is the lack of reliable statistics on the number of users.
- Richard Rawson: *Public health indicators that should indicate the meth problem lag five to seven years behind the emergence of the drug.*
- The best predictors of an emerging meth epidemic, Rawson said, are the presence of meth use in the gay community and the discovery of even small numbers of meth labs.
- *Washington Post, March 19, 2006*

Figure 2. Methamphetamine Use in Past Year among Persons Aged 12 or Older, by Gender and Age: 2002, 2003, and 2004



AGE

Youth Reasons for Use

Iowa Case Management Study

Females

- Availability
- Weight loss
- To increase productivity
- "To escape"
- Emotional problems
- Family problems
- Increase strength

Males

- Availability
- Just curious
- To heighten sexual experiences
- My parents used drugs

Monitoring the Future, 2005:

- Since 1999: Meth has shown substantial decline in all grades (8, 10, 12).
- In 2005: Continued decrease among 10th and 12th graders but not among 8th graders.
- Patterns of declining use "seem to be inconsistent with reports of a growing meth epidemic."
- "It is possible that use is increasing among high school dropouts who are not captured in the survey, and among young adults."

(Lloyd Johnston, Principal Investigator MTF)

GENDER

- Typical gender ratio of heroin users in treatment : **3 men to 1 woman**
- Typical gender ratio of cocaine users in treatment : **2 men to 1 woman**
- Typical gender ratio of meth users in treatment : **1 man to 1 woman***

*among large clinical research populations

Women and Meth

Dr. Kathryn Wells, Denver Family Crisis Center

- Available
- Affordable
- Mood elevator
- Libido enhancer
- Energy enhancer
- Appetite suppressor
- The growing illicit drug of choice among young women

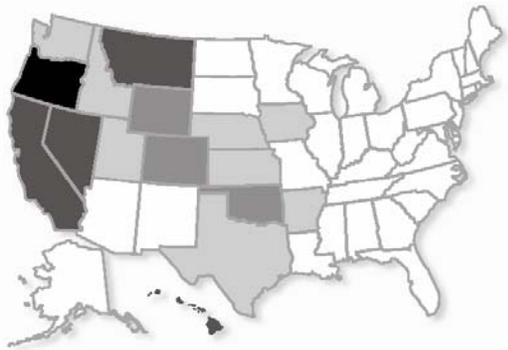
1998-2002: More than 90 percent treated for Meth addiction lived west of the Mississippi

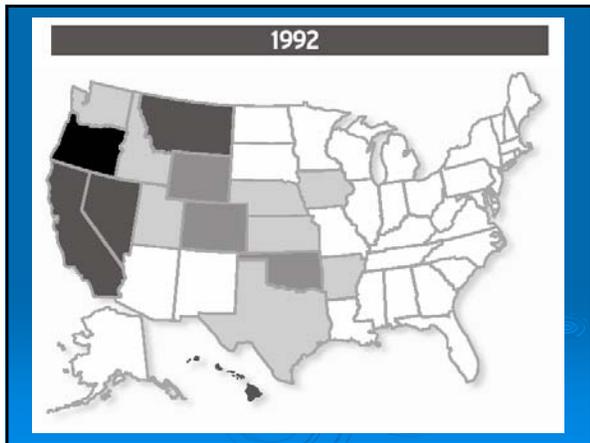
The map indicates the number of meth users in rehab per 10,000 state residents age 12 and older. Figures are annual averages for 1998-2002.

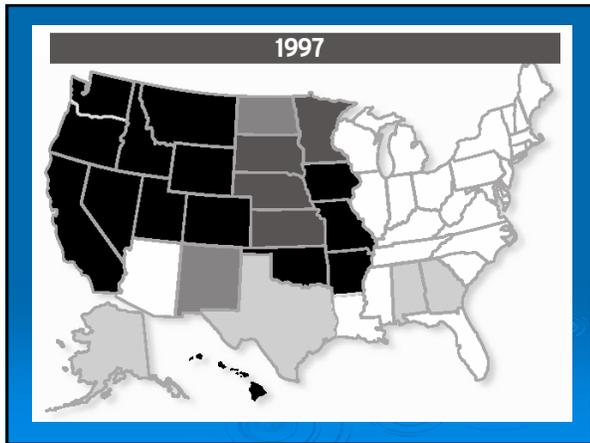
Less than 4 4 to 8 8 to 16 16 or more

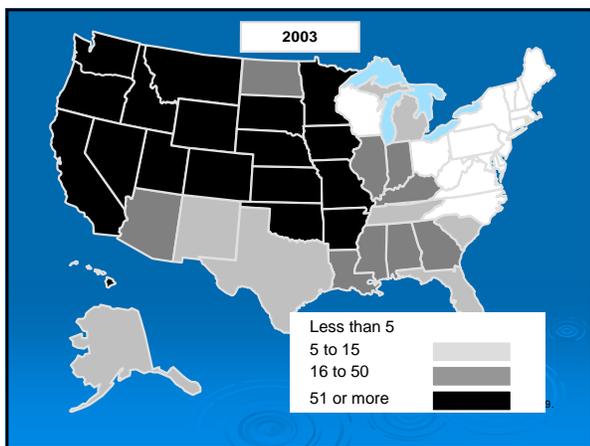


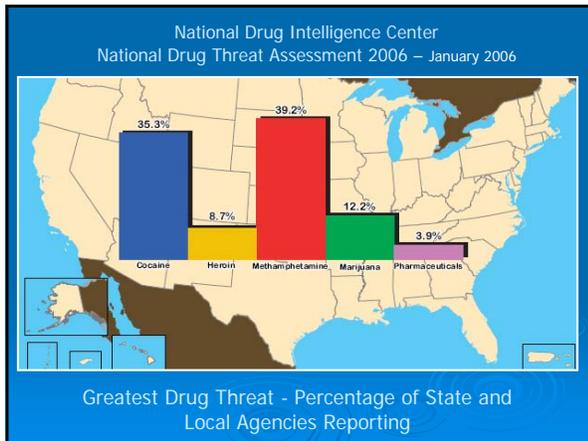
1992



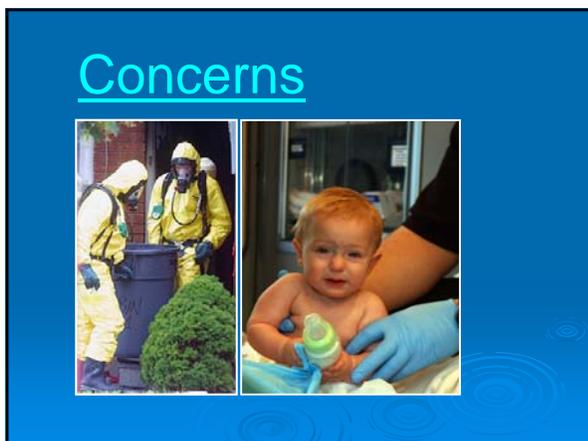








- Differences: Then and Now
- The Internet
 - Local production
 - National outbreak
 - Multi-substance use
 - More and varied user groups
 - Association with violent crime
 - More smoking and stronger drug
 - Broader link with HIV, Hepatitis, STDs



Meth Associations:

- Poly-substance abuse
- Interpersonal violence
- Depression and suicide
- Paranoia, aggression, psychosis
- Rapid physical / psychological disability
- Personal and property crime
- Unrestrained sexual behavior
- Abuse and neglect of children
- Environmental danger / contamination

A Few Specifics:

- Infectious Disease
- Substance Abuse Treatment
- Environmental Health
- Community Health
- Maternal/Child Health Issues

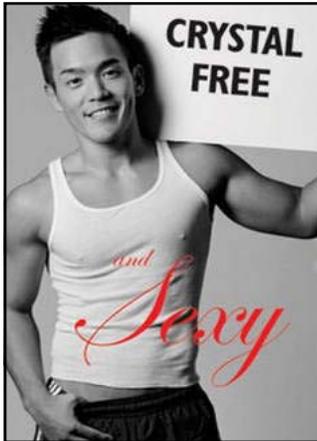
Meth, Sex and Infectious Disease

DHHS Bulletin, August 18, 2006 Patterson

- CDC concerned about harms associated with meth use, risky sex, STIs, Hepatitis, Tuberculosis.
- Research since 1988 shows
 - 2-fold or greater increase in sexual risk behavior or STIs in users.
 - Multiple outbreaks of Hep A and Hep B, including many hundred of cases and several deaths
- Two TB outbreaks among users since late 2005

<http://www.lifeormeth.com>

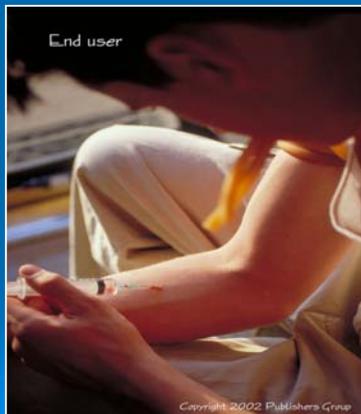
- Syphilis infection has made a major comeback.
- The sharp rise is mostly among gay and bisexual men, who account for more than 60% of all current syphilis cases in the US compared to only 5% five years ago.
- Syphilis rates are as much as 4.9 times higher among crystal Meth users.
- L.A. AIDS researchers report concern over simultaneous transmission of HIV and syphilis in Meth users



- Among MSM, meth use is seen in males of all races.
- Some of the best prevention efforts in the country are being carried out by HIV/AIDS prevention groups.

Most Meth users admitted to **Treatment** are poly-drug users.

Nationwide:
Meth used with
↑ Alcohol,
↑ Marijuana,
Cocaine and
Heroin.



Why do people think that Meth treatment doesn't work?

(Rick Rawson, 2006)

- Many of the geographic regions impacted by MA do not have extensive treatment systems for severe drug dependence.
- Medical and psychiatric aspects of MA dependence exceed program capabilities.
- High rate of use by women, their treatment needs and the needs of their children can be daunting.
- Although some traditional elements may be appropriate, many staff report feeling unprepared to address many of the clinical challenges presented by these patients

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 addicted first use
- Chronic illness with potential for relapse and long term need for recovery management
- Often complicated by presence of other mental or physical illness
- ... and TREATMENT WORKS

How is Meth addiction different?

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

- High is stronger, better, 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?

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

Most important factor:

- Stages of progressive addiction and loss of function move much more quickly than alcohol and other drugs – months compared to decades.
- This rapid progression may result in severe consequences, particularly in the young with loss of function in emotional development, education, relationships, employment and parenting skills

Environmental Health

- Risk of biological and toxic chemical exposures to meth cooks and their families, and those who come later.
- Risk of exposure to second hand smoke
- Risk of fire, explosion and unsafe living conditions.
- Need for cleanup is proven
- Research is lacking
- Few states have mandate or standards.

National Jewish Research Center Methamphetamine Research

- 16 small labs:
 - Excessive levels of meth found throughout
 - Meth detected in ten out of fourteen labs
 - Meth found in levels up to 10,000 times over the recommended amount.
 - Meth, ephedrine, and pseudoephedrine detected on appliances, counters, vents, and furniture in extreme amounts

Implications for Children

Martyny et al, NJRS

- All children will be exposed to methamphetamine.
 - Touch, In food, Airborne
- Children may be exposed to levels of iodine, acid, ammonia, and phosphine that exceed occupational standards.
- Children may be exposed to IDLH levels of hydrochloric acid and anhydrous ammonia.

National Jewish Research Center Methamphetamine Research

- Meth smoking results in meth being released into the environment
- Levels depends on amount smoked and efficiency of smoking method
- Amount increase as smoking increases
- Levels of meth from smoking are lower than levels where meth has been cooked
- Where meth is smoked, it is likely that children will be exposed to meth during smoking and to meth in the structure after smoking has ceased

Meth Labs and Children



- About 30-35% of labs seized have children
- 35% - 70% of children from meth labs test positive for meth
- 10% of children from homes of heavy users test positive for meth

Martyny et al, National Jewish Research Center,
Denver

Community Health

- Increase in personal and property crime
- Loss of economic productivity
- Disruption of families; increased impacts on foster system
- Increase in ER admits for accident, trauma, assault, suicide attempts, burns and psych emergencies
- Prostitution and other meth-sex related problems

Maternal and Child Health

- Poor prenatal care
- Nutritional neglect.
- Increased risk of pre-term births
- Complication in pregnancy
- Unplanned pregnancy.
- Drug and chemical exposed children
- Issues of privacy vs. intervention
- Lack of research in all areas

National Drug Intelligence Center National Drug Threat Assessment 2006

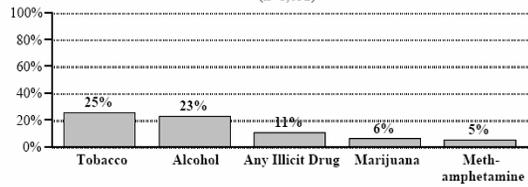
January 2006

- NSDUH data collected during 2002 and 2003 show:
 - 4.3 percent of pregnant women aged 15 to 44 report having used illicit drugs in the past month
 - 8.5 percent of new mothers report having used illicit drugs in the past month.

Meth and Pregnancy

Center for Substance Abuse Research, February 20, 2006.

Percentage of Women Using Substances At Least Once During Pregnancy,
Los Angeles, CA; Des Moines, IA; Tulsa, OK; and Honolulu, HI; 2004
(n=1,632)



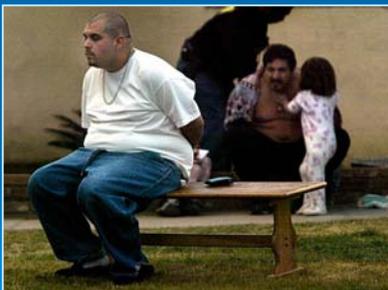
IDEAL Study: 5 percent of women living in areas where meth use is known to be high used meth at least once during their pregnancies.

Latest findings from IDEAL

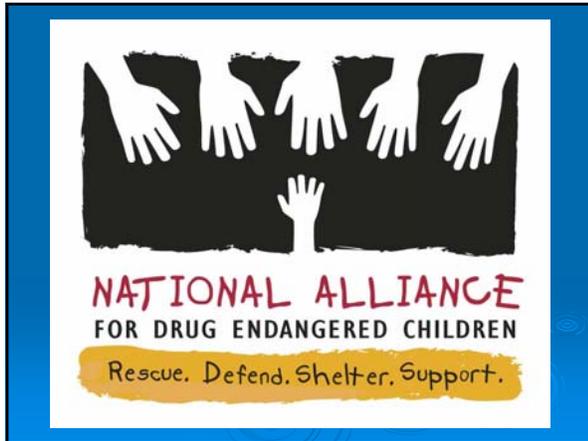
PEDIATRICS Vol. 118 No. 3 September 2006

- Meth exposed group 3.5 times more likely to be small for gestational age
- Mothers who used tobacco during pregnancy were nearly 2 times more likely to have small-for-gestational-age infants
- Low weight gain during pregnancy more likely to result in a small-for-age infant.
- (Low birth weight a major predictor of infant mortality and risk of disorders including cerebral palsy, deafness and attention deficit disorder Columbia University, May 2006).

Judges should always think when they have an individual before them who is an abuser of alcohol or drugs, "Is there a child who depends on this person?"



Laura Birkmeyer
Executive Assistant
US Attorney
San Diego



Creating a public health response to Drug Endangered Children

Holly Hopper, MRC
University of Kentucky
DEC Training Network



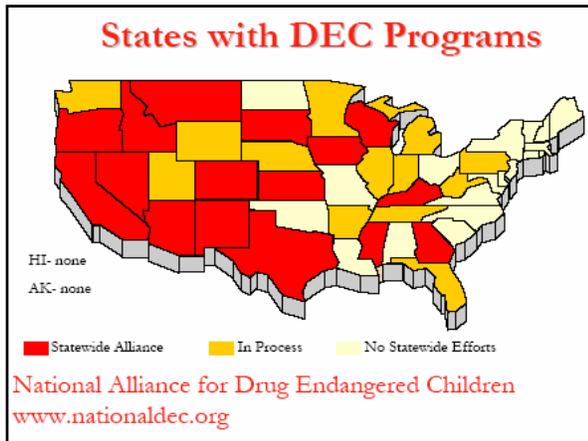
www.drugendangeredchild.org

What is DEC?

- A national and statewide movement.
- A term used to describe a subset of our nation's abused and neglected children.



www.nationaldec.org



The Kentucky Alliance for Drug Endangered Children

- Mission Statement
- National trainers, 4 sites in KY spring 2005
 - **ACTION PLAN REQUIRED**
 - Willingness to act mandatory to qualify for training
 - **ONE YEAR OF AWARENESS PRIOR TO DEC TRAINING**



What is a Drug Endangered Child?

- Endangerment can be direct or indirect exposure to drug production, sale, or use.
- 88% of substantiated child abuse of children under age four years involve substance abuse (Kentucky)



The Role of Public Health in the DEC Effort

- Maternal & Child Health
- Oral Health
- Early Start programs
- Environmental Division
 - Walk Your Land
- Sanitarians
- EMS
- Community Health Centers
- Immunizations
- Lead and Radon programs
- Home visitor programs
 - Meth Too Close to Home
- Well Child Centers
- WIC

The DEC Education Team

- DEC Response Team
- School representative
- Court personnel (family court judge)
- Health Department
- AHEC
- Local College Representative
- Regional Prevention Center Staff
- Dentists
- Local Government Representative
- Drug Court Professionals
- Community Mental Health
- BB/BS
- Community Mentoring Programs
- Drug Treatment
- Family Resource Centers
- Homemaker Groups
- Faith Community
- Teen Volunteer Groups

Drug Endangered Child Training Network

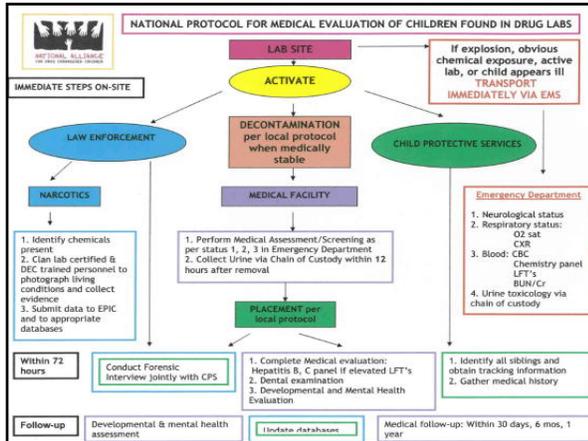
- Grant awarded by Appalachian Regional Commission
- Public Health Partners:
 - College of Medicine
 - College of Public Health
 - College of Dentistry
 - College of Social Work
- Regional Advisory Board
 - multidisciplinary
 - representative of Appalachian region

DEC Training Network Goals

- Building local capacity, resource-sharing
- Implementation of National Medical Protocol
- Surveillance of incidence and care of children in progress
- Development of community based response and education teams

Where are we now?

- Over 4,600 professionals trained in Kentucky since initial DEC trainings
- Follow-up training of professionals in 116 counties
 - No training granted without commitment to form an operational DEC team
- Select sessions available on KY-TRAIN (<http://ky.train.org>)
- Follow-up and tracking of all counties in process
- Expanding network to Alabama and West Virginia



- ### Key Components of Medical Tracking and Assistance for Children
- Interagency agreements
 - Medical examinations
 - Donations from UK College of Dentistry
 - National Medical Protocol for Drug Endangered Children
 - Availability of 24 Hour medical consultation
 - Additional protocol development

- ### Findings and Responses
- Not all are babies
 - Many DEC sexually abused children
 - Oral neglect issues are common
 - Many are malnourished or dehydrated
 - Elders abused as well
 - ✓ Trained counselors in school
 - ✓ Oral health screening tool developed and implemented
 - ✓ Addendum for drug endangered adults added to the state protocol
 - ✓ Not all are ready to act or become involved
 - ✓ Education and awareness seem to be a key to action

A day in the life:





Copyright PNTF

Teams must determine what is acceptable for our children?



Teams Can Advocate



Children's Advocacy Centers

- CAC's are child-friendly.
- Many sexual abuse victims may also be drug endangered children.
- **Everyone** who works with children can provide information to improve services.
- Abused children frequently suffer oral neglect.



Consider the Alternate Point of Entry:

How many of these cases may present to a local health department?

- 13 y.o., previous miscarriage, chemical rash on body, not face
- 5 month-old presents with recurrent ear infections, unusual rash after weekend visit
- 3 y.o. brought to ER for respiratory problem, found to have head lice, 38 human bites on body, bruising on penis and evidence of penetrated abuse
- 5 y.o. presents to ER for seizures, elevated temp

Summary of Points

- Access to accurate information is critical.
- Caution is critical but over-reaction unnecessary.
- Environments are toxic, not children.
- Contamination does not disappear without proper remediation.
- Cross training and collaboration are keys to preventing negative outcomes for children's health and well-being.

National Conference

3rd Annual National Alliance for Drug Endangered Children Conference

Sustainability: Building Your State DEC Alliance to Last

Nashville, Tennessee, November 27-29

Registration Information:

www.nationaldec.org

Northern Cheyenne War On Meth

Terry Beartusk
Chairman, Subcommittee
on Community
Involvement for the
Northern Cheyenne
War Against Meth



September 26, 2006

NORTHERN CHEYENNE TRIBE: WAR ON METH

- January, 2006: War declared by Eugene Little Coyote, Tribal Chairman
- War is funded by the Northern Cheyenne Board of Health: \$150,000
- Core Group formed representative of tribal leaders, professionals and every-day-joe community members.
- Core Group divided into Sub-Committees or Action Groups, each with a specific and separate purpose.

SUBCOMMITTEE FOR COMMUNITY INVOLVEMENT

Purpose:

- Bring **AWARENESS** of the Methamphetamine epidemic to the attention of the Northern Cheyenne populace;
- Encourage community members to take ownership of the problem (break down walls of mass denial), and;
- Encourage, invite and assist community members to participate in the **SOLUTIONS**



METHODS/PROJECTS UNDERTAKEN IN 2006

- March** through the capitol community of LameDeer to the front lawn of the Capitol building
 - 1,000 participants
 - Chairman Little Coyote address
 - Tribal Council addresses



METHODS/PROJECTS UNDERTAKEN IN 2006

- **Rally** at the local football field
 - Lunch
 - Native American Comedian/Motivational speaker
 - Testimonials from local, recovering Meth Addicts



ROCKIN' THE REZ CONCERT

Purpose: To provide a dual function activity to encourage maximum participation (600 attendees participated).

This event involved Food, Fun and Education.



ROCKIN' THE REZ CONCERT



- Buffalo Feast
- 12 separate bands -- each band presents their own anti-meth message in addition to entertainment
- Motivational speakers and testimonials from community members interspersed between bands
- 4 drum groups
- 12 hand drum contestants

ROCKIN' THE REZ CONCERT



NORTHERN CHEYENNE WAR ON METH

Anita Small, R.N.
Northern Cheyenne Public Health Nursing

COMMUNITY INVOLVEMENT & AWARENESS

Some people make things happen.

Some watch while things happen.

And some wonder "what happened?"

--Anonymous

MISSION STATEMENT

To Involve The Northern Cheyenne Community In The War On Meth Through:

- ❖ Healthy Activities
 - ❖ Learning Opportunities
 - ❖ Other Hands-on Approaches
- ↓
- Increase Community Awareness Of Healthy Solutions
 - Provide Prevention And Diversion Activities
 - Promote Traditional Healing Practices

WAR on METH Goals

- To follow our committee's mission statement.
- To believe in ourselves and this committee.
- To invest our time and effort to make a difference in our community.
- To collaborate with other programs in the community.
 - Indian Health Service
 - Law Enforcement
 - Local schools and college
 - Local businesses
 - Boys and Girls Club
 - Headstart

WAR on METH Efforts

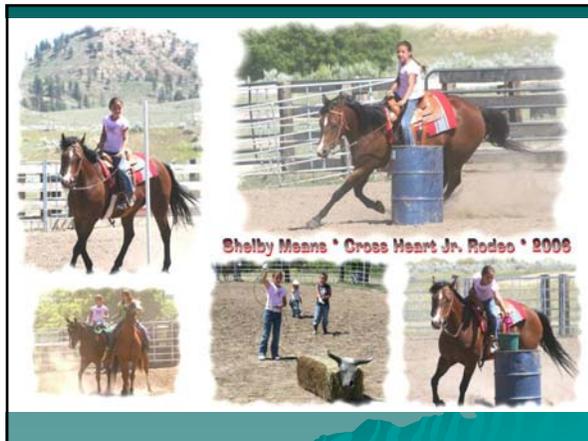
- **FUN activities** throughout the summer
 - Barrel Racing and Pole Bending
 - Roping
 - Open Youth Rodeo
 - Specialized Clinics
 - Parelli Natural Horsemanship Clinic

Open Youth Rodeo & Special Clinics



Curbin & Billy
Cross Heart Jr. Rodeo
2008





Shelby Means * Cross Heart Jr. Rodeo * 2008

WAR on METH Efforts

- Drug free messages
 - "This is a meth free arena"
 - "If you are using meth, you are not welcome here"
 - "We need to set good examples for our community"
- Distribution of anti-meth wrist bands, bumper stickers and t-shirts

Tribal member JD Oldmouse delivers an important anti-drug message at the youth rodeo.



WAR on METH Efforts

- **Sportsmanship**- everyone cheered for each other
- **Leadership**- was provided by all adults and our older youth by helping and teaching others about a meth free lifestyle



Public Health in the War Effort

- Jail visits
 - Atleast once a week
 - Builds trust
 - Oral health check ups
 - Hep C testing, per pt. request
- Meth screening and referrals for all patients
 - Recovery
 - Behavioral health
 - Medical doctors
- Patient education in schools
 - Effects of meth
 - STD (including HIV) risk factors
- Risk reduction efforts

Tell me and I'll forget. Show me and I may not remember.
Involve me and I'll understand.
--Native American Proverb



Federal Meth Update

Marcia Brand, Ph.D.
Associate Administrator for Rural Health
Office of Rural Health Policy
Health Resources and Services
Administration

September 26, 2006

HRSA Activities

- Informal HHS methamphetamine workgroup
- Appalachian Regional Commission – community approach to substance abuse
- HRSA Administrator supports agency meth activities

HRSA: Looking Forward

- HHS meth workgroup meeting
- Mental health (including substance abuse) is a HRSA priority for FY 07
- State Offices of Rural Health
<http://www.nosorh.org/>

Resources

- Office of Rural Health Policy
www.ruralhealth.hrsa.gov
301-443-0835
- Rural Assistance Center www.raonline.org
- ARC Community Approach
Bruce Behringer, Division of Health Sciences,
ETSU, behringe@mail.etsu.edu

Q & A Session and Closing Comments

JUDITH THIERRY, D.O., M.P.H.
Captain USPHS
Maternal and Child Health Coordinator
Indian Health Service

September 26, 2006

Public Health: Venues & Points of Connection for Action

- Environmental Health
- EMS, Law enforcement, Fire Depts. Response
- Community Health & Safety Education
- School Health and Safety Education
- Maternal and Child Health Services i.e. WIC
- Community & Migrant Health Centers
- Indian Health Service & Tribal Programs
- Social Services – Child Welfare
- Substance Abuse, Prevention & Treatment
- Oral Health Professionals

Public Health Response and Participation

- Strengthening coalitions through targeted planning about Meth
- Building skills with training/education
- Developing and expanding prevention aimed at populations at risk
- Monitoring data for trends (ED, arrests, CPS)
- Expanding recognition of emerging issues

Questions and Answers

Closing Comments

- Using and applying Meth 101 Resources
- Identifying PH points of opportunity
- Recognizing the power of the coalition
- Developing meaningful data for surveillance
- Enhancing recognition of the crisis – target population
- Reducing the supply of meth – behind the counter
- Improving meth drug prevention/education

Thank You

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