

Partnership with Disaster Mental Health

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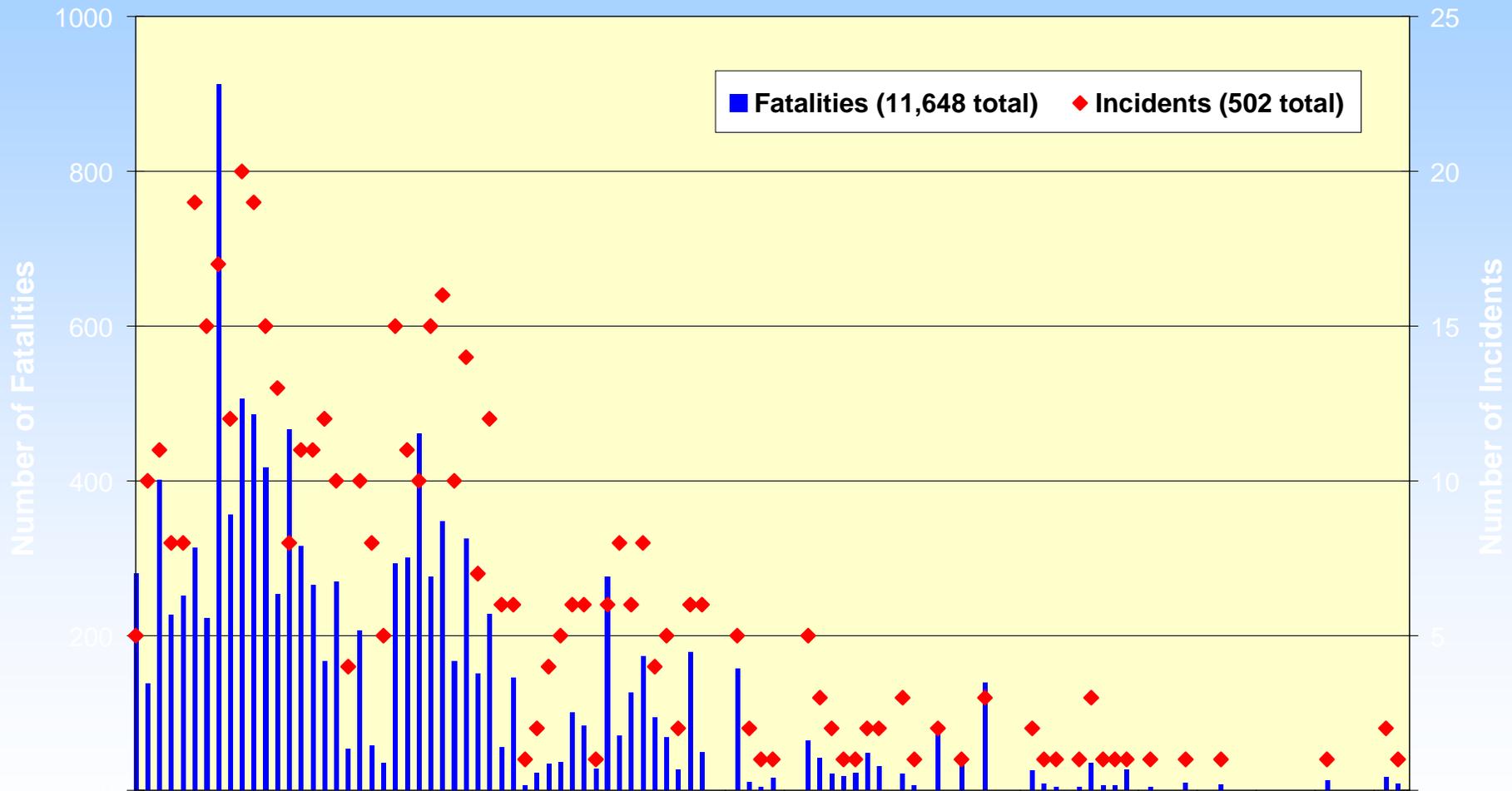
Partnerships on Preparedness

Cincinnati, Ohio

April 30 – May 1, 2009

Coal Mining Disaster Incidents and Fatalities 1900-2007

Last disaster occurred at Crandall Canyon Mine on 8/6 and 8/16/2007
A mining disaster is an incident with 5 or more fatalities; Data source: MSHA

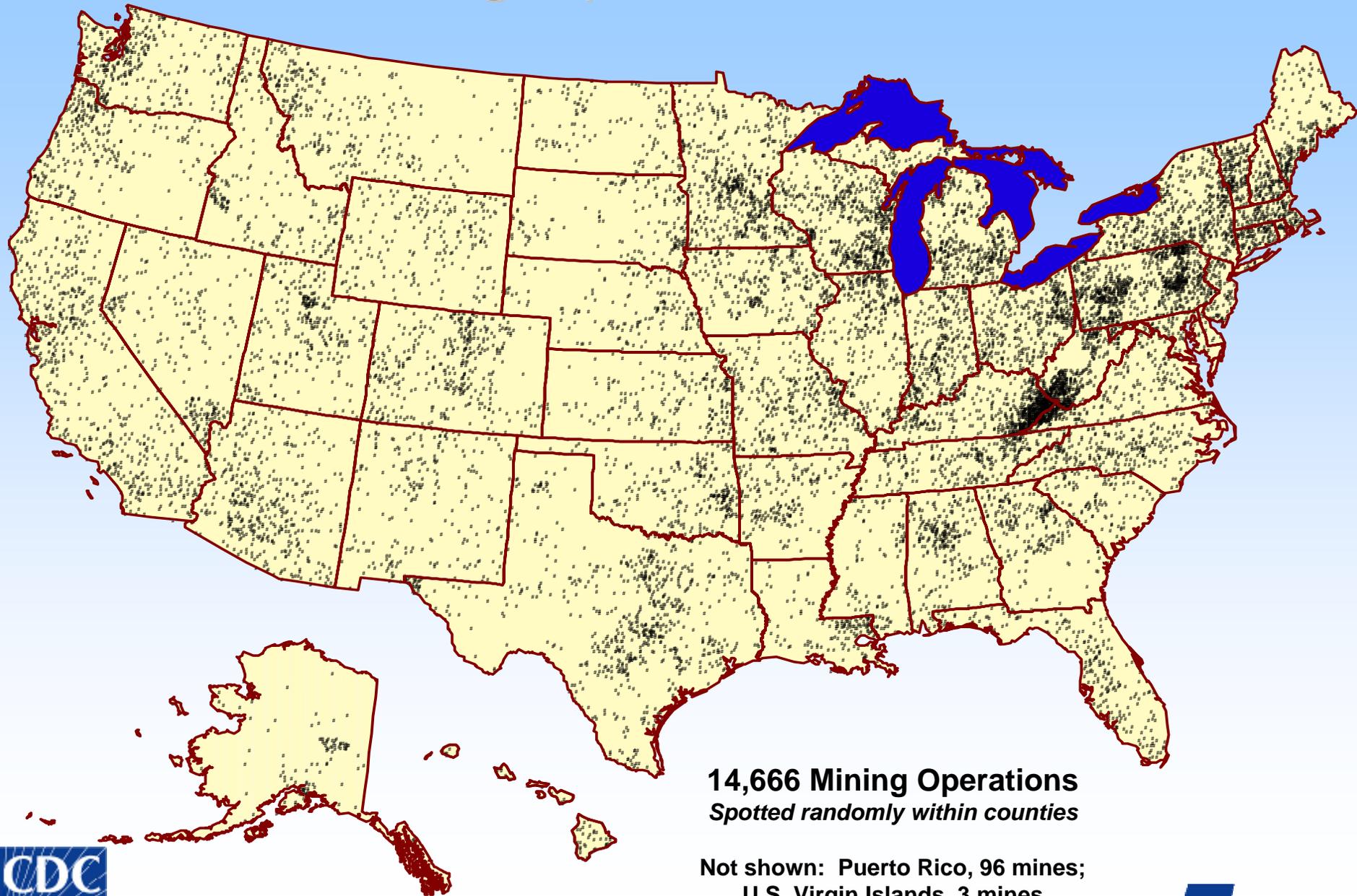


Mining

- Mining takes place either underground or on the surface of the earth.
- There are five basic commodities mined:
 - Coal
 - Metal
 - Non-metal
 - Stone
 - Sand and Gravel



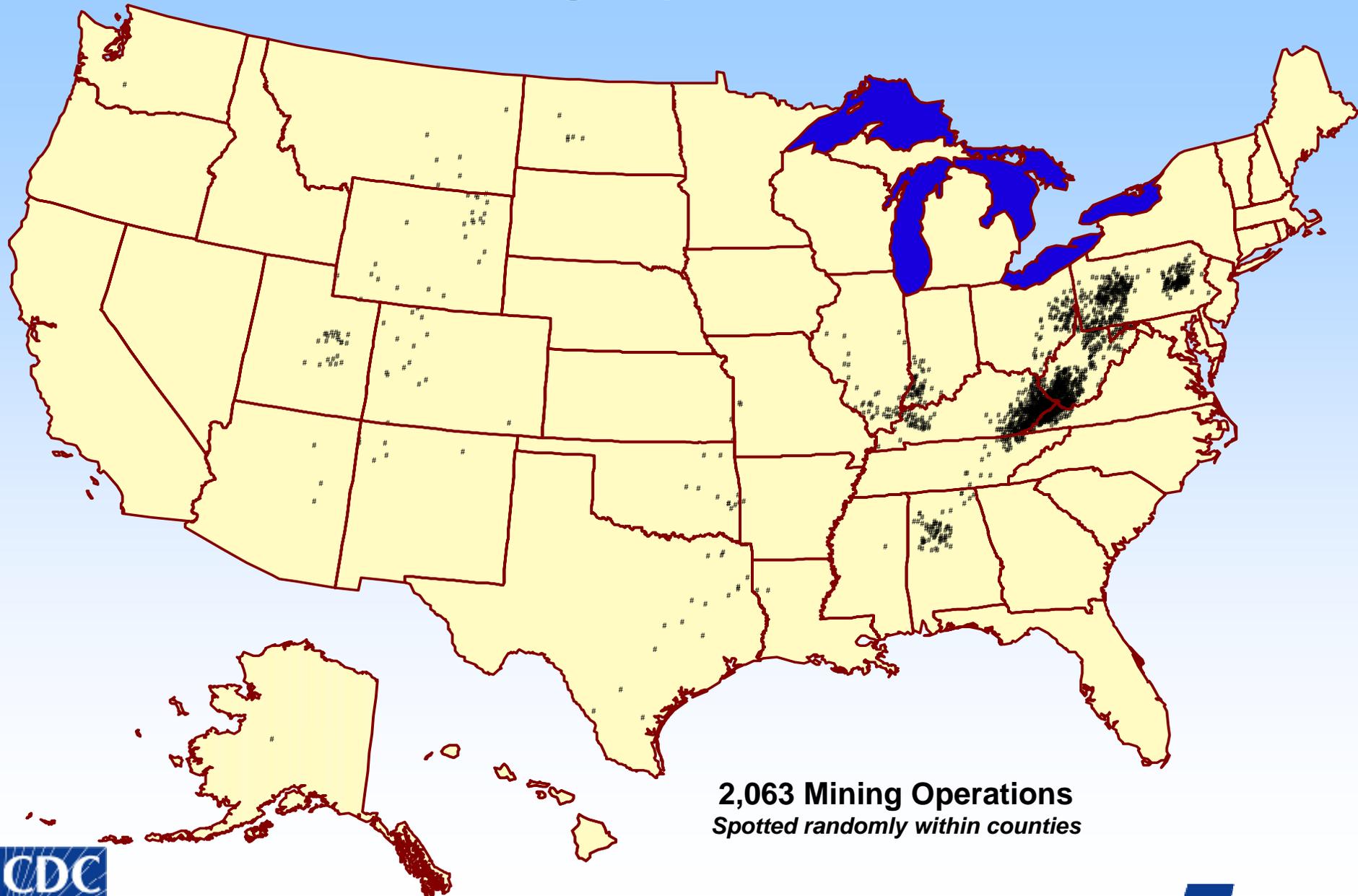
Mining Operations, 2005



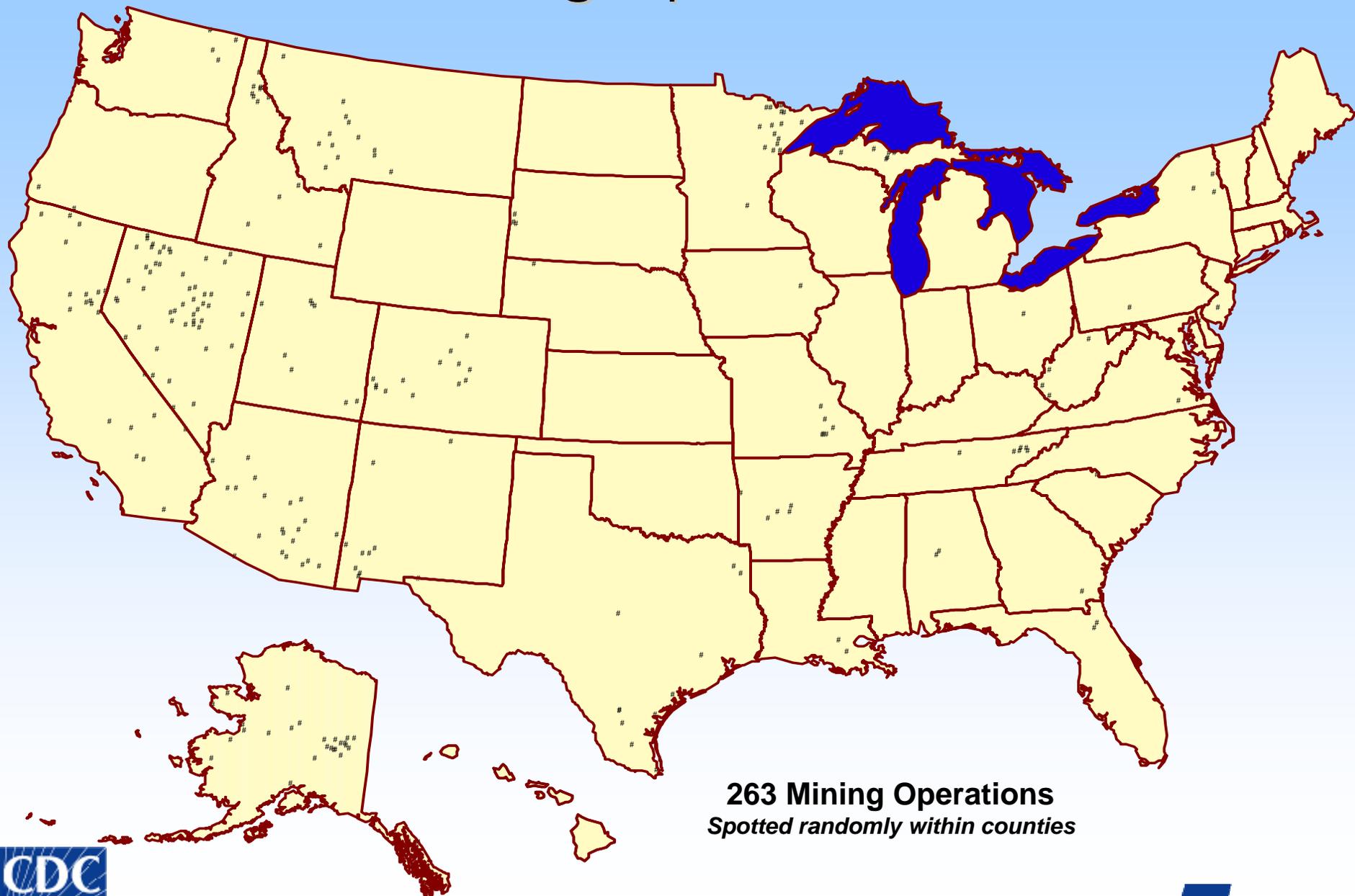
14,666 Mining Operations
Spotted randomly within counties

Not shown: Puerto Rico, 96 mines;
U.S. Virgin Islands, 3 mines

Coal Mining Operations, 2005

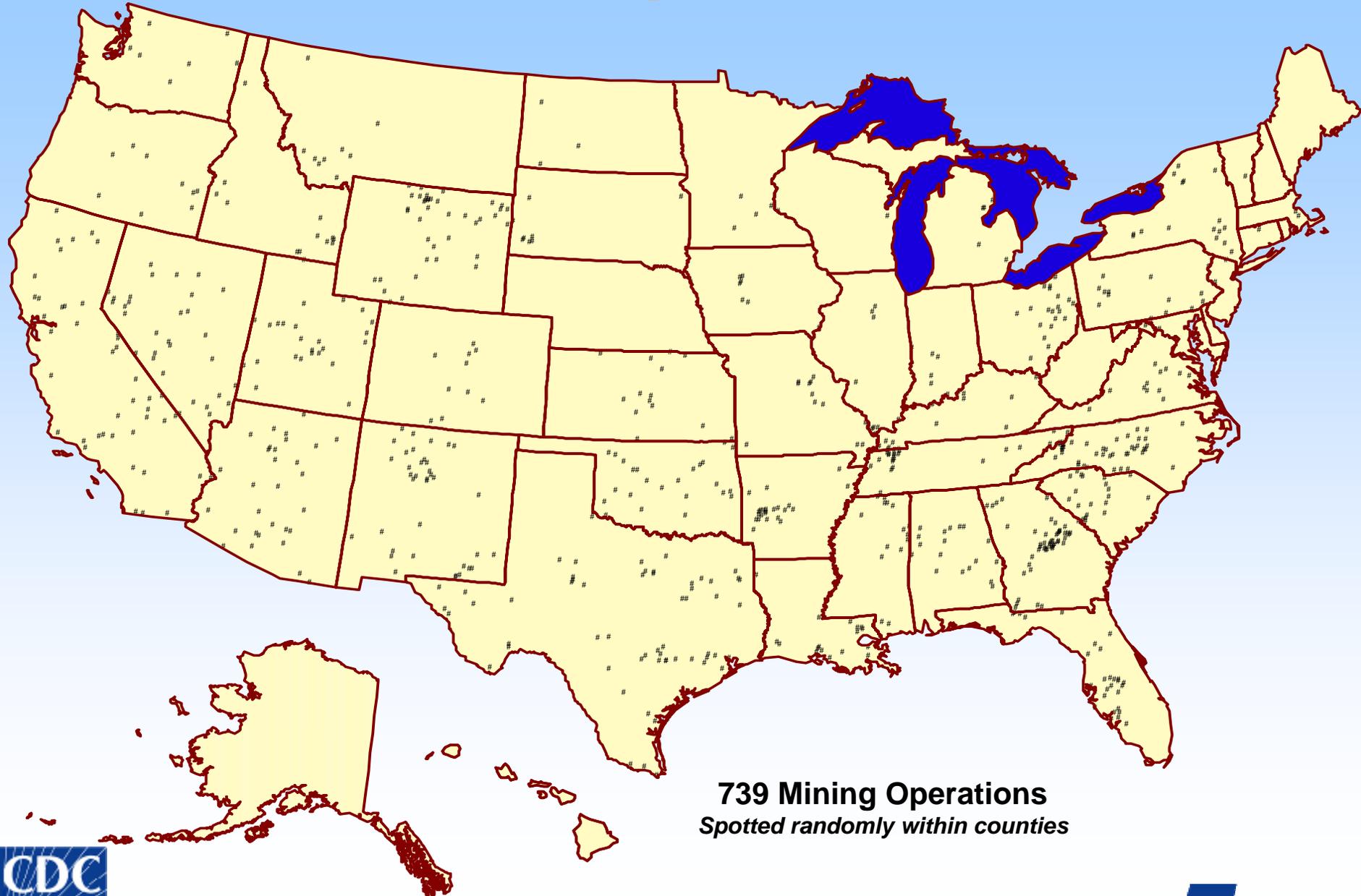


Metal Mining Operations, 2005



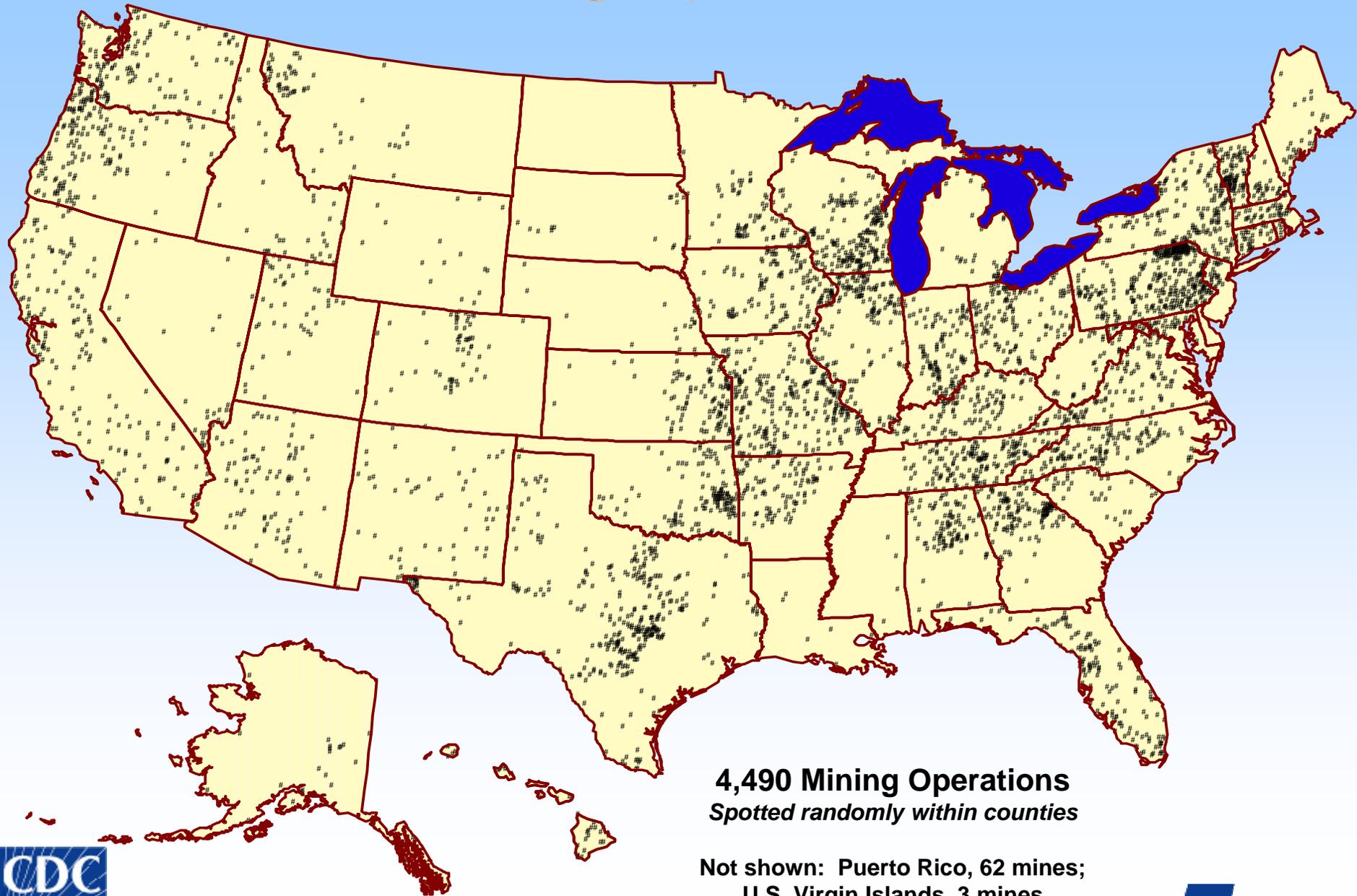
263 Mining Operations
Spotted randomly within counties

Nonmetal Mining Operations, 2005

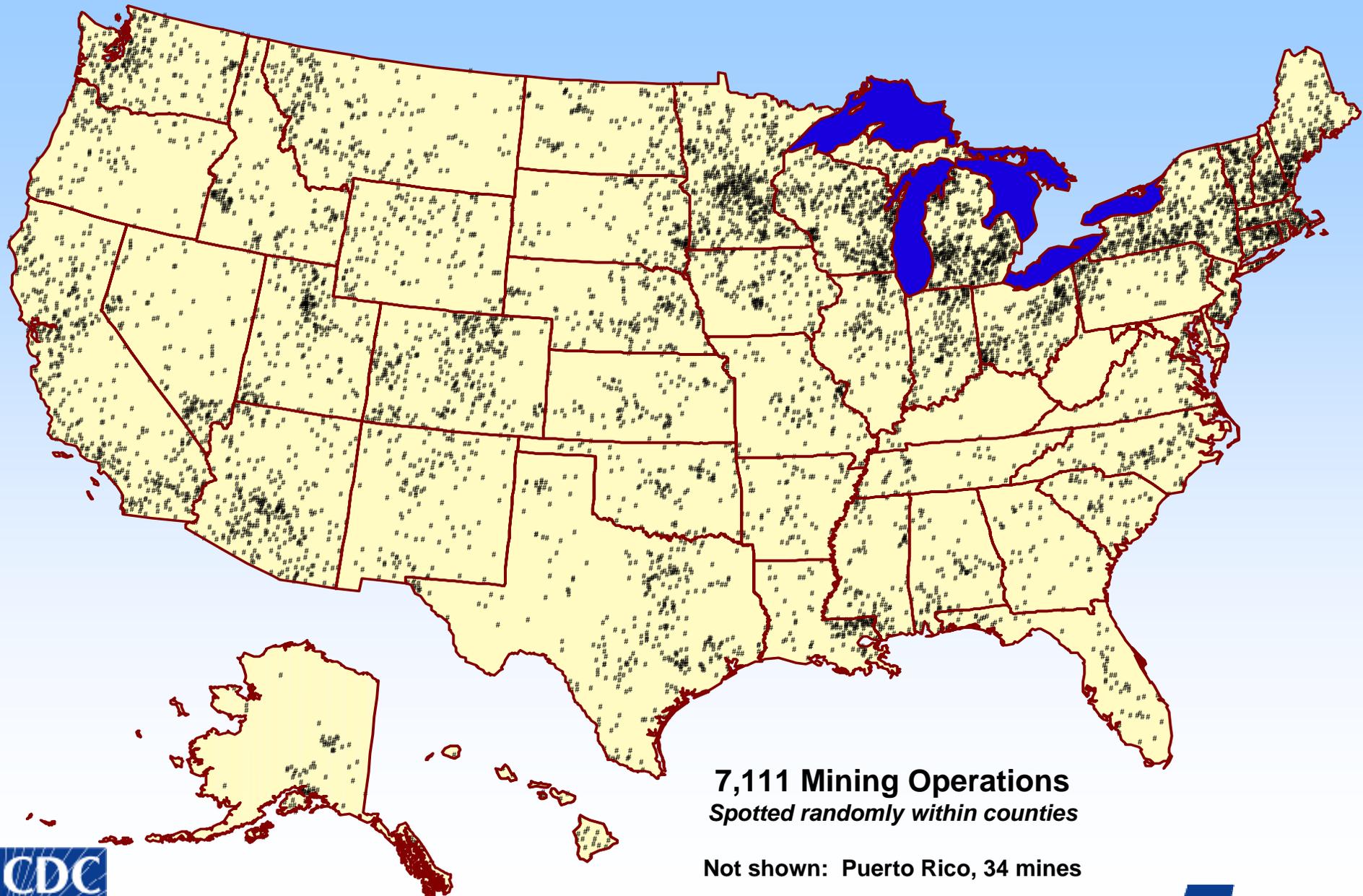


739 Mining Operations
Spotted randomly within counties

Stone Mining Operations, 2005



Sand & Gravel Mining Operations, 2005



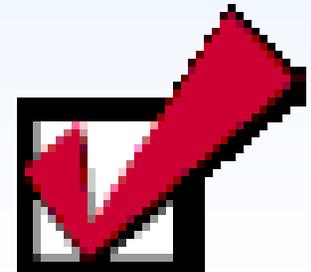
7,111 Mining Operations
Spotted randomly within counties

Not shown: Puerto Rico, 34 mines

Partnership with Disaster Mental Health

Today's presentation

- Need - why bother?
- Evidence of effectiveness
- Partnerships
- Phases of Disaster
- Resilience
- Psychological First Aid



Disaster Mental Health Need



- A disaster/terrorism/chemical release is a **traumatic incident** in a person's life.
- Stress is a basic human instinctual response. People have a normal reaction to an extraordinary situation.

Disaster Mental Health Need

- This response has physical, cognitive, emotional, and behavioral symptoms.
- It is estimated that 45% of those directly effected by a disaster may develop psychiatric symptoms.
- Some estimate that up to 90% of a population is effected by an incident with 50% impaired.

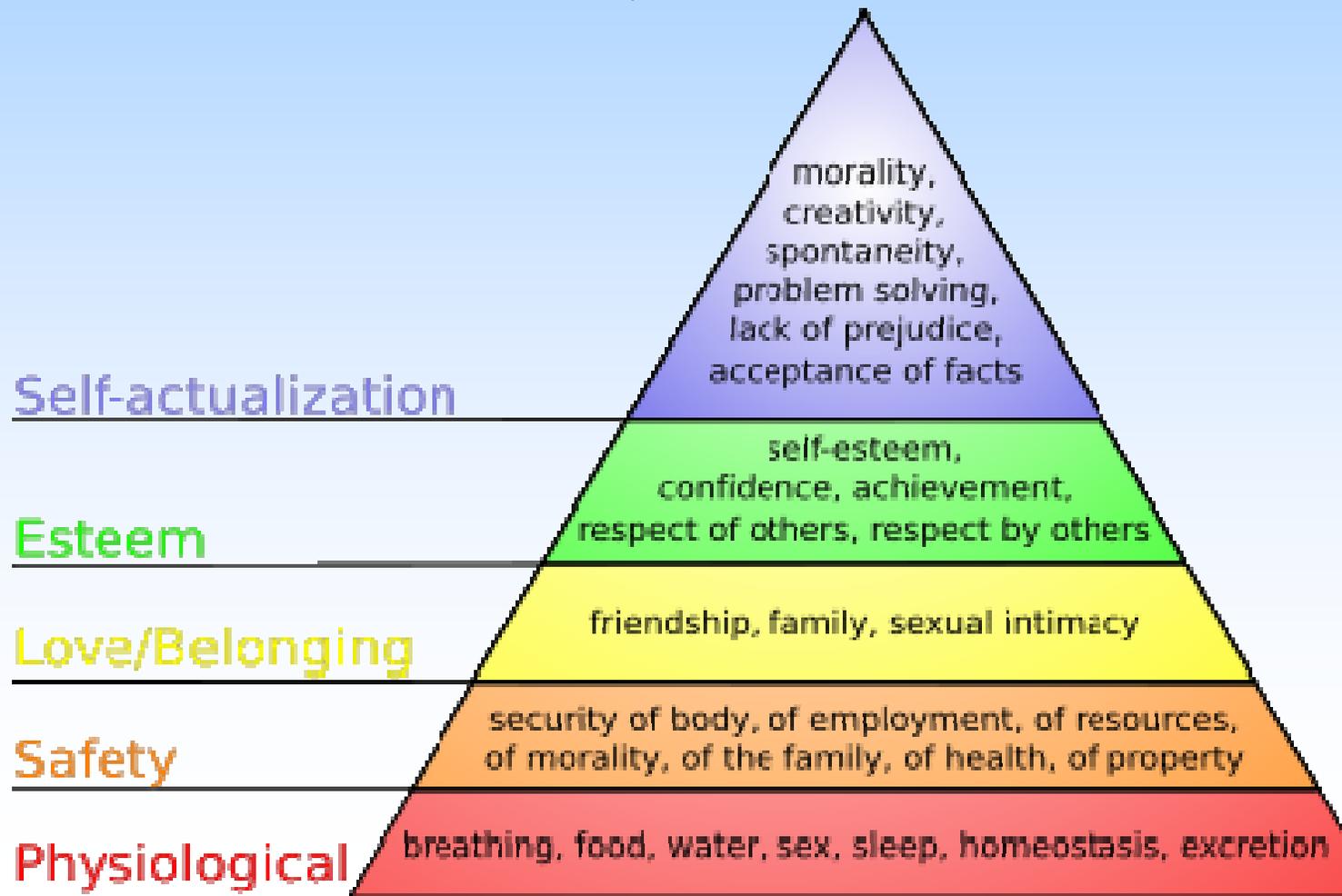
Disaster Mental Health Need

- There is evidence that intervention within the first several weeks of a trauma can reduce the impact.
- It is important to note that the majority of individuals exposed will not need formal intervention.
- We have an obligation to provide for the rest of the population and provide information for all.



Disaster Mental Health Need

Maslow's Hierarchy of Needs



Disaster Mental Health Need

- Physical needs are first.
- Psychological needs are secondary.



Disaster Mental Health Need

- March 20, 1995 Tokyo, Japan; sarin release in the subway
- 12 people died; 1000 exposed
- **5000** sought medical treatment; hospitals were overwhelmed
- Five years later psychological symptoms persisted



Disaster Mental Health Need

- April 19, 1995 Oklahoma City, OK terrorist attack on the federal Murrah building, 168 dead
- Studies indicated that alcohol consumption was up, divorce and retirement increased
- Handlers reported stress in dogs



Disaster Mental Health Need

- September 11, 2001
- Numerous on-going studies indicating
 - Predictive factors for psychological problems
 - 100s of firefighters and EMTs reported nightmares, sudden anger, withdrawal, fear etc



Disaster Mental Health Effectiveness

- There is evidence that mental health interventions within the first several weeks of the disaster can reduce the impact of symptoms such as numbness, withdrawal, depression, denial, relationship problems, poor concentration, flashbacks, anxiety, and feelings of guilt.

Disaster Mental Health Effectiveness

Evidence from Quecreek Mine, PA 2002



Disaster Mental Health Partnerships

- Partnering with Disaster Mental Health impacts pre-event, event, and post event activities.
- Three key factors:
 - Partner with Disaster MH professionals.
 - Remember to provide for responders.
 - Psychologically **PREPARATION** is the most important activity in which to engage to mitigate the effects of a disaster.

Disaster Mental Health Partnerships

- Responders can become part of the problem.
- Responders can be trained to watch for symptoms in themselves and others.
- Adequate rest, nutrition, contact with family important for responders.



Phases of a Disaster

1. Initial impact phase
 - fear, anxiety
2. Heroic phase
 - survivors help each other
3. Disillusionment phase
 - resentment and frustration
 - at officials, company, and agencies
4. Reconstruction phase



Disaster Mental Health Resilience

- the ability to adapt well in the face of adversity
- the ability to withstand significant adversity and be able to “bounce” back Wolin and Wolin, 1993
- the “early adaptive processes aimed at restoring homeostasis from a disturbed state” Steinberg and Reissman, 1990
- the ability to successfully negotiate and adapt to adverse circumstances in a healthy manner

Reissman et al., 2004



Disaster Mental Health Resilience

- **Resilience:** a process of healthy adaptation by individuals or organizations faced with adverse circumstances. Resilience has multiple components which may be impacted favorably.
- People can be taught to be resilient. Thus, intervention in support of Resilience is most appropriate.

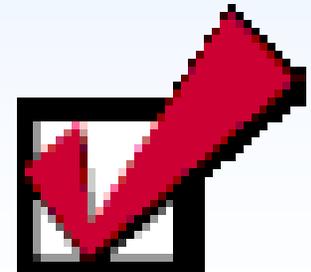
Psychological First Aid

- Psychological First Aid is an intervention that provides mental health support and information for individuals and the community.
- A noted international expert* has suggested that the future of DMH is in Psychological First Aid, as it is a compassionate and supportive presence providing education and connecting people to resources and information.
- * Dr. George Everly, Johns Hopkins

Partnership with Disaster Mental Health

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- Evidence of effectiveness
- Partnerships
- Phases of Disaster
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Partnering with Disaster Mental Health

- ☑ Mental Health is a key component to pre-event, event, and post-event emergency planning and response
- ☑ Work with Mental Health professionals trained in Disaster Mental Health
- ☑ Prepare Responders



Disaster Mental Health



Thank you

Questions?

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Resource

- NIOSH Publication No. 2002-107.
Traumatic Incident Stress: Information
for Emergency Response Workers.
January 2002

<http://www.cdc.gov/niosh/mining/pubs>