Health Impact Assessment of the Clean Power Plan

Stakeholders Meeting - August 28, 2014
Jim Phillips, MD, Presenter
Harmful Health Impacts of Decreased Air Quality

- Preclinical to Early Grave
- Ozone – PM$_{2.5}$ – Mercury
- CNS – Asthma – COPD – CAD – Cancer – Cognitive Decline
- Premature Death
THE 1% RULE

ELECTRIC POWER INDUSTRY EMISSIONS, ARKANSAS

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Dioxide</td>
<td>1.7%</td>
</tr>
<tr>
<td>Sulfur Dioxide</td>
<td>2.3%</td>
</tr>
<tr>
<td>Nitrogen Oxide</td>
<td>1.8%</td>
</tr>
</tbody>
</table>

U.S. ENERGY INFORMATION ADMINISTRATION (2012). STATE ENERGY DATA SYSTEM.
MERCURY IN FISH ADVISORIES

Map Legend

1. Felsenthal Wildlife Refuge
2. Ouachita River
3. Saline River
4. Lake Columbia
5. Cut-off Creek
6. Bayou Bartholomew
7. Grays Lake
8. Moro Bay Creek
9. Champagnolle Creek
10. Dorcheat Bayou
11. Fouche La Fave River
12. Nimrod Lake
13. Cove Creek Lake
14. Lake Sylvia
15. Dry Fork Lake
16. Lake Winona
17. Lake Fort Smith
18. Johnson Hole
19. Lake Ouachita
20. Spring Lake

This much mercury can contaminate a 20-acre lake.
U.S. coal-fired power plants produce 48 tons of it each year.

ARKANSAS DEPARTMENT OF HEALTH
Mercury is the New Lead

Cord Blood Concentrations at Birth

- > 5.8 µg/L → IQ Reduced
- 15.7% of Births Above 5.8 µg/L