

PREVENTING HARM

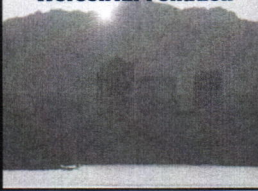

Potential Directions for a Healthier Future

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Climate Change Adaptation an opportunity to nurture resilient Communities

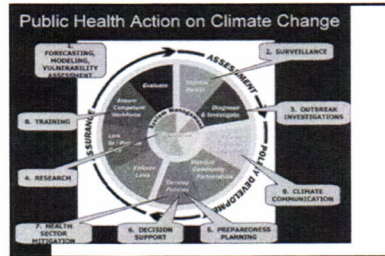

Rising Temperatures Worsen Air Pollution


The Precautionary Principle

The Wingspread Statement


"When an activity raises threats of harm to human health or the environment, *precautionary measures should be taken* even if some cause and effect relationships are not fully established scientifically."

Health Effects of PM

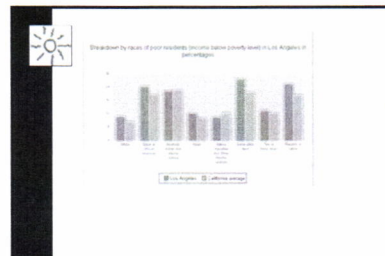


- Increases asthma attacks (*Harvard Six Cities Studies*)
- Aggravates bronchitis (*McConnell et al 1999*)
- Slows lung growth in children (*Gauderman et al 2000, 2002*)
- Lower birth weight and increased number of premature births (*Ritz et al 2001, 2002*)
- Contributes to premature deaths (*Pope et al 2002*)




"The Stone Age did not end because we ran out of stones; the Oil Age will not end because the world runs out of oil."

Don Huberts- Shell H₂ CEO
Sheik Yamani- ex Saudi Oil minister
Geoffrey Ballard- fuel cell pioneer



Reproductive Health


Hispanic, African-American, and Asian/Pacific Islander mothers experienced higher mean levels of air pollution and were more than twice as likely to live in the most polluted counties compared with white mothers after controlling for maternal risk factors, region, and educational status



PSA-LA 2007

**Declining Reproductive Health
Low Birth Weight**

- The number of infants born with low birth weight (under 6.6 lbs) increased almost 1% from 1994-2004. (Center for Disease Control)
- African American low birth weights are rising faster and remain significantly higher.

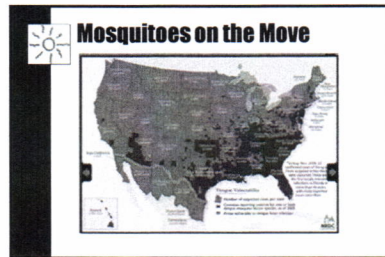
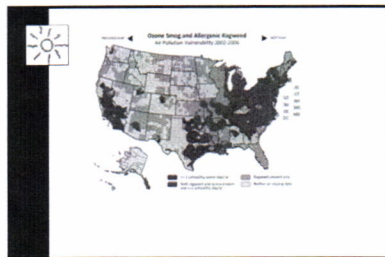


PBR-LA 2009 11

Dengue/ Dengue Hemorrhagic Fever (DHF)

- Caused by one of four distinct virus strains
- No vaccine or treatment available
- DHF average case fatality rate: 5%
- Estimated 50 to 100 million cases each year of dengue, several hundred thousand cases of DHF
- Spread by *Aedes* mosquito; *Ae. aegypti* does not survive below 50 °F (10 °C), epidemic transmission unlikely below 68 °F (20 °C)
- Range is expanding

WHO, *Climate Change and Human Health*, 88-90



Hantavirus Pulmonary Syndrome

- First emerged in U.S. in 1993
- Nearly half (42%) of all cases reported fatal
- Deer mouse- main carrier of the disease in US spread by contact with rodent droppings, urine, or saliva
- "Sequential extremes:" Disease emerged after floods increased rodent food supply. Boom in population drove rodents closer to human habitations. Subsequent drought may have helped by killing predators.

Emerging Infectious Diseases 1999; 5(1):87-94

Infectious Diseases

