

Health Effects (HE) of the  
Organic Components of PM:  
Knowledge Gaps  
Future Strategies

Health Effects (HE)

Why are we here?

Identify HE-causing Agents or Sources

Mass is a blunt instrument

Use organics & co-pollutants to  
associate sources and HE

Complement Health Studies

Mechanisms linking organics to HE

## Health Effects (HE)

Mechanistic approaches

Avoid Unintended Consequences

Why, not just what

## Health Effects (HE)

Organic Classification

Appropriate Level of Detail

Getting beyond EC/OC

Markers for Sources

Simplification – organic classes

Polarity

WSOC

Oxidative Potential

SVOC, NVOC, VOC

## Health Effects (HE)

### Improved Instrumentation and Methods

Size/Composition/Sources

Personal Monitors

Tox. Measurement Devices

Less Expensive for Distributed Measurements

Biomarkers for Exposure

Biomarkers for Toxicity

Cost

Study Constraints

Development

Mathematical Models of AQ

## Health Effects (HE)

### Study Design

Time-Activity Data and Diversity

Central Monitors vs. Distributed Measures

Biomarkers

Cost

Study Constraints

Development

Exposure/Dosimetry

Analytical Models