Health Studies Update
AQMD Governing Board Retreat
April 12 - 13, 2012

Cleaning the Air That We Breathe...

Harvard 6-Cities Study

- Participants recruited 1974-1977
- 25-74 years old at enrollment
- PM$_{2.5}$ measured at central site
- Vital status & cause of death to 2009
- PM$_{2.5}$ levels declined overall
- Annual PM$_{2.5}$ as low as 8 μg/m3

Lepeule J, Laden F, Dockery D, Schwartz J
Environ Health Perspect: http://dx.doi.org/10.1289/ehp.1304660 Online: 28 March 2012

- Watertown, MA
- Kinston & Harriman, TN
- St. Louis, MO
- Steubenville, OH
- Portage, Wyocena, Pardeeville, WI
- Topeka, KS
Harvard 6-Cities Study PM2.5

Harvard 6-Cities Study Findings

- With a 10 μg/m³ increase in PM$_{2.5}$
  - 14% increase in all-cause mortality
  - 26% increase in cardiovascular mortality
  - 37% increase in lung cancer mortality
- Relationship between long-term PM$_{2.5}$ and mortality found to be linear
- No evidence of threshold for effects
- Estimated effects did not change over time