

•Lessons-learned from disasters such as WTC and Katrina have significantly improved federal government's ability to define disaster mitigation needs, characterize disaster exposures, and conduct effective post-disaster remediations:

- Need integrated and systematic response that relies on high quality exposure data.
- Identified contaminants of potential concern to establish health-based benchmarks for those contaminants during the planned (2002-2003) assistance program in lower Manhattan.
- Systematic approach showed contaminants likely to be present indoors at levels of health concern:
 - dioxins, polycyclic aromatic hydrocarbons (PAHs), lead, asbestos, fibrous glass, and crystalline silica.
- Risk-based benchmarks protective of long-term habitability of dwellings.
- Led to EPA's greater attention to exposure scenarios in subsequent disasters, especially in Katrina, where prediction and prevention of asbestos exposure scenarios were paramount.
- Also, for residences with more than minimal dust, EPA urged using professional asbestos abatement cleaners.
- Significant progress in preparedness efforts to assess and remediate indoor contamination caused by a building collapse or other environmental disaster.
 - Development of subchronic health-based exposure advisory levels for the general public, i.e. provisional advisory levels (PALs) for air or drinking water.
 - To date, EPA has developed PALs for over 20 chemicals (equates to > 360 separate values).
- EPA also working with the National Research Council to develop acute exposure guidance levels (AEGs), i.e. emergency response standards for general public.
- Rapid deployment of equipment and integration and sharing of data immediately with first responders.
 - Developing uniform guidelines for use of response equipment and the compilation of a database of all available response equipment throughout the agency.
- Continually developing and refining scenario-driven regional and national disaster response plans. Inter-agency working groups,
- Developed restoration plans for large transportation infrastructures to support the timely cleanup and restoration of infrastructures after disaster events.
- Bottom line: Reliable exposure information is crucial throughout the response.