

# A Life Stage Approach to Assessing Children's Exposures

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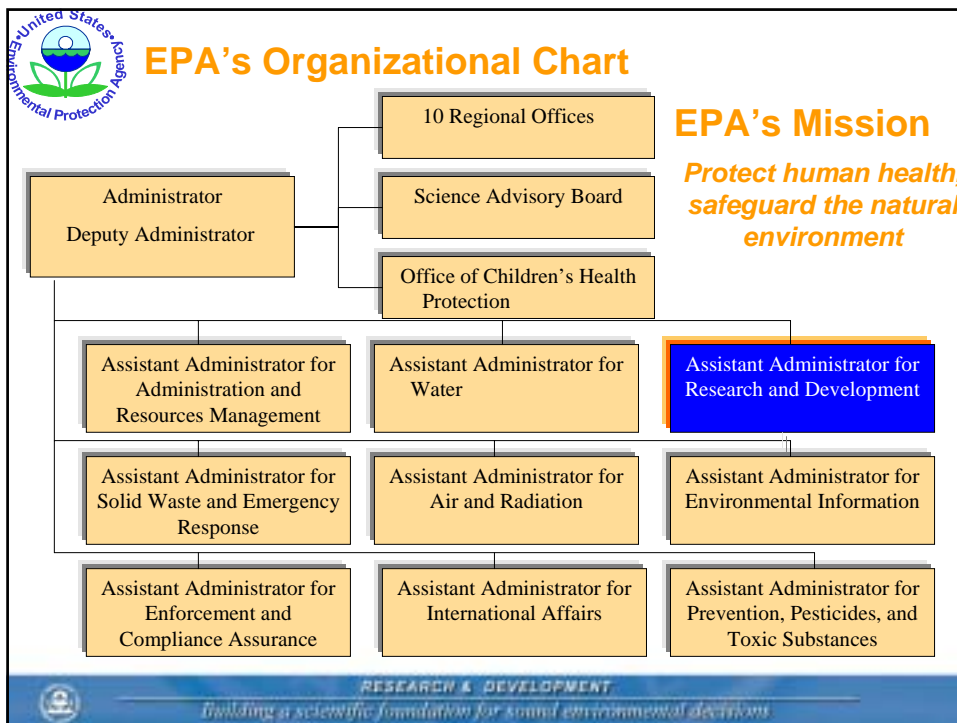
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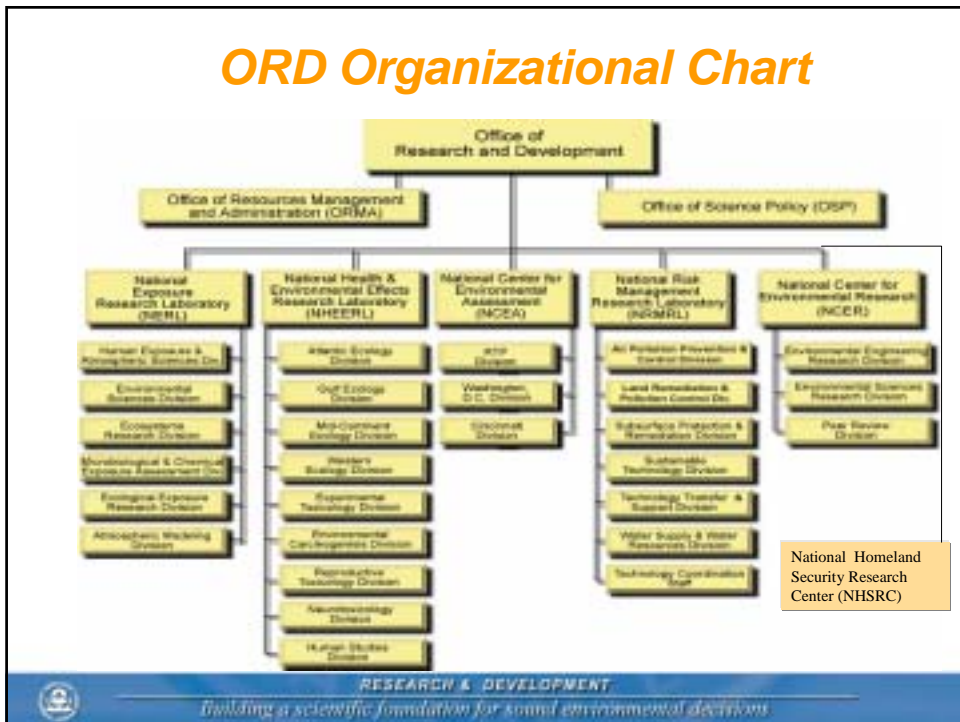
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# ORD Organizational Chart



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## Making decisions with sound science requires..

- Relevant, high quality, cutting-edge research in human health, ecology, pollution control and prevention, economics and decision sciences
- Proper characterization of scientific findings
- Appropriate use of science in the decision process

## Research and development contribute uniquely to..

- Health and ecological research, as well as research in pollution prevention and new technology
- In-house research and an external grants program
- Problem-driven and core research



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## High Priority Research Areas



- Human Health
- Particulate Matter
- Drinking Water
- Clean Water
- Global Change
- Endocrine Disruptors
- Ecological Risk
- Pollution Prevention
- Homeland Security



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## National Center for Environmental Assessment

### NCEA's work focuses on:

#### Human Health --

- Conducting human health risk assessments and managing the Agency's Integrated Risk Information System (IRIS)
- Producing Air Quality Criteria Documents
- Providing risk assessment research, methods, guidelines, training materials, and technical and regulatory support to EPA's Program Offices and Regional Offices and the public

#### Ecological Health --

- Developing methods for integrating, deriving, and synthesizing cause and effect relationships for application in causal and risk assessments
- Conducting priority ecological assessments, particularly of watersheds, that apply these approaches and relationships
- Providing tools and guidance that will increase the accessibility of our methods to EPA's Program Offices and Regional Offices and the public

And... → Assessment of global change  
→ Expert staff support to the Agency's Risk Assessment Forum



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# OUTLINE

- Background
- A Life Stage Approach
- Exposure Assessment Framework
  - Problem Formulation and Conceptual Model
  - Available Exposure Data
  - Characterization of variability and uncertainty
- Conclusions
- Future Plans



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# BACKGROUND

- Protecting infants and children from environmental hazards is a major concern to EPA
- EPA issued policy *Evaluating Health Risks to Children* (1995)
- *National Agenda to Protect Children's Health from Environmental Threats* (1996)
- *Executive Order 13045 Protection of Children from Environmental Health Risks and Safety Risks* (1997)



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## ***Evaluating Health Risks to Children's Policy 1995***

- Consider the risks to infants and children consistently and explicitly as a part of risk assessments generated during its decision making process, including the setting of standards to protect public health and the environment.
- Develop a separate assessment of risks to infants and children or state clearly why this is not done

***Background***



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## ***National Agenda to Protect Children***

- Standards are protective of risks to children
- Scientific research focuses on gaps regarding child-specific susceptibility and exposure to environmental pollutants
- New, comprehensive policies to address cumulative and simultaneous exposures
- Community right-to-know to make informed choices concerning environmental exposures to their children
- Providing basic information to parents
- Educational efforts with health care providers and environmental professionals
- Funding to address children's environmental health as a top priority

***Background***



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## **Executive Order 13045**

- Agency shall make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children; and
- shall ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

*Background*



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## **EPA Activities**

- Safe Drinking Water Amendments (1996)
- Air Quality Standards (1996)
- Food Quality Protection Act (1996)
- EPA created Office of Children's Health Protection in 1997
- Updating Guidelines for Carcinogenic Risk Assessment



*Background*



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