



place matters. **GRASP**

## CDC/ATSDR Environmental Justice Index (EJI)

The Environmental Justice Index (EJI) is the first national, place-based tool designed to measure the cumulative impacts of environmental burdens through the lenses of human health and health equity.

The EJI delivers a single rank for each community to identify and map areas most at risk for the health impacts of environmental burdens. Social factors such as poverty, race, and ethnicity, along with pre-existing health conditions may increase these impacts. This tool helps public health officials prioritize action for those communities most in need.

### Key Concepts

#### Environmental Justice

Environmental justice means the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability, in agency decision-making and other Federal activities that affect human health and the environment so that people:

- Are fully protected from disproportionate and adverse human health and environmental effects (including risks) and hazards, including those related to climate change, the cumulative impacts of environmental and other burdens, and the legacy of racism or other structural or systemic barriers; and
- Have equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and engage in cultural and subsistence practices.

#### Health Equity

Health equity is the state in which everyone has a fair and just opportunity to attain their highest level of health. Achieving this requires focused and ongoing societal efforts to address historical and contemporary injustices, overcoming economic, social, and other obstacles to health and healthcare, and eliminating preventable health disparities.

#### Environmental Burden & Cumulative Impacts

Cumulative impacts are the total harm to human health that occurs from the combination of environmental burden such as pollution and poor environmental conditions, pre-existing health conditions, and social factors such as access to quality healthcare.



Geospatial Research, Analysis & Services Program (GRASP)  
Office of Innovation and Analytics  
Agency for Toxic Substances and Disease Registry



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# An example of Environmental Burden & Cumulative Impacts



*All too often, this becomes a cycle.*



**1. Community Characteristics**

Consider a community with few native English speakers, little representation in local government, high rates of asthma, and poor air quality.



**2. Initial Impact**

A newspaper announces that a manufacturing plant is relocating to the community, but the information is not available in the primary language of the community, so they are unaware of the potential hazards from living near the plant.



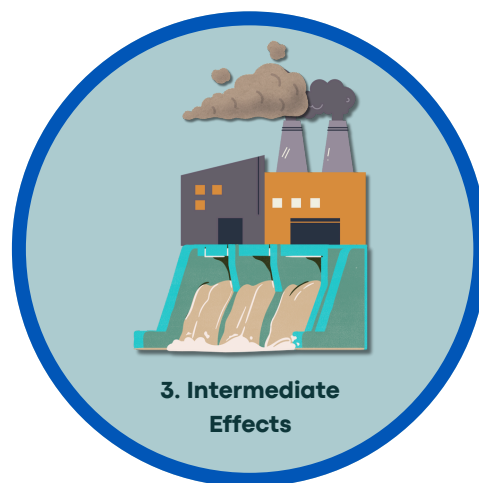
**5. Economic and Social Consequences**

Families are unable to sell their homes and move to less polluted areas, as the decline in environmental quality continues to drive down land values.



**4. Compounding Health Issues**

Medical issues worsen within the community due to compounded effects of asthma, poor air quality, and polluted drinking water. The community also suffers from a lack of health insurance or financial resources for medical treatment.



**3. Intermediate Effects**

The manufacturing plant has moved in and has been leaking chemicals into the local water source for the past ten years. The community is seeing a rise in illness among children and families.



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## Using the Data

The EJI presents data for each census tract in the continental United States. Census tracts are the smallest subdivisions of land for which data are consistently available. Each census tract represents a community and is home to an average of 4,000 people.

The data used in the EJI comes from the U.S. Census Bureau, the U.S. Environmental Protection Agency, the U.S. Mine Safety and Health Administration, the U.S. Department of Transportation, OpenStreetMap, the U.S. Geospatial Survey, the U.S. Department of Agriculture, the U.S. Federal Emergency Management Agency, the National Aeronautics and Space Administration, the National Oceanic and Atmospheric Administration, and the U.S. Centers for Disease Control and Prevention.

In addition to delivering a single environmental justice rank for each community, the EJI also ranks communities on each of the four modules in the tool (social vulnerability, environmental burden, health vulnerability, and climate burden) and allows more detailed analysis within these modules.

Individuals and community-based organizations, public health officials at local, state, and federal levels, scientists, and researchers can use the EJI to:

- Identify and prioritize areas that may require special attention or additional action to improve health and health equity,
- Educate and inform the public about their community,
- Analyze the unique, local factors driving cumulative impacts on health to inform policy and decision making, and
- Establish meaningful goals and measure progress towards environmental justice and health equity.

## Limitations of the EJI

The EJI is intended as a high-level mapping and screening tool that characterizes cumulative impacts and patterns of environmental injustice across the United States. The tool relies on historical data generated by various institutions on varying time scales.

The EJI is not intended as a:

- A definitive tool for labeling environmental justice communities,
- A tool for characterizing all environmental justice issues,
- A comprehensive representation of current or future social, environmental, or health characteristics,
- A representation of risk or exposure for a community, or
- A tool to tell whether individuals are at risk.

Detailed information on the limitations of the EJI can be found in the [EJI Technical Documentation](#).

## For More Information

- Contact the EJI Coordinator at [ejc\\_coordinator@cdc.gov](mailto:ejc_coordinator@cdc.gov)
- Send media inquiries to [placeandhealth@cdc.gov](mailto:placeandhealth@cdc.gov)

