# **Pesticide Exposures**

#### About

Pesticide exposures can sometimes lead to pesticide poisonings. A pesticide exposure occurs when humans come into contact with pesticides, which are chemicals intended to control pests. Pests are anything from insects such as ants, mosquitos, roaches or wasps to rodents and larger mammals such as mice, rats, or bats. Pesticide exposures vary, and may result from a single, short-term exposure to high levels of pesticides, a long-term exposure to high levels of pesticides, or a long-term exposure to low levels of pesticides. There are many different sources or ways people can be exposed to pesticides including pesticide residues in the air, water, soil, sediment, plants, food, or through contact with animals. The most common exposure scenarios for pesticide-poisoning cases are bystander exposure to off-target drift, followed by the general public who are exposed through environmental contamination, occupational exposures, and accidental or suicidal poisonings.

#### **About the Measures**

The LDH Health Data Portal contains information on the number and the average annual rate of reported pesticide exposures. These measures currently reflect pesticide exposure reports received by LDH from 2006 through 2014. Pesticide exposure reports come from a variety of sources including the Louisiana Department of Agriculture and Forestry, the Louisiana Poison Control Center, laboratory tests, and reports from healthcare providers.

#### About the Data

Pesticide exposure data are maintained in a pesticide surveillance database identified as SENSOR-Pesticides Incident Data Entry and Reporting (SPIDER) which is managed by the LDH Section of Environmental Epidemiology and Toxicology. Annual parish pesticide exposure case rates for 2006 through 2014 were calculated using annual parish population data from the United States Census Bureau. An average annual pesticide exposure case rate was calculated for each parish by averaging the annual case rates for the study period.

### Disclaimer

Data are intended to spur further research and should be used only as a starting point to understanding how the environment and other contributing factors may be connected to disease. Datasets presented on this site are intended to answer some basic questions, but should ultimately lead to further inquiry and more detailed study.

Data limitations should be noted if conducting exploratory ecological studies with these data. Limitations may include data gaps, reporting discrepancies (for example, a disruption of reporting or instrument recording following hurricanes) and insufficient data on all potentially confounding factors. There are numerous additional factors which may contribute to disease onset. These include genetics, access to health care, existing health conditions, medicines, other chemical substances we come into contact with or ingest, nutrition, route and duration of exposure, level of activity, level of stress, and many others.

Responsible use of this data therefore requires exercising caution when drawing conclusions based solely on views of the limited available data. Any perceived relationship, trend, or pattern apparent in the data should not be interpreted to imply causation; may in fact be unrelated; and should be regarded as preliminary, and potentially erroneous, until more in-depth study and if applicable, statistical evaluation, can be applied. The LDH Bureau of Health Informatics and Environmental Public Health Tracking Program cannot guarantee the completeness of the information contained in these datasets and expressly disclaim liability for errors and omissions in their content.

### **Data Sources**

• LDH Pesticide Surveillance Program

## **Additional Information**

- LDH Pesticide Surveillance Program
- LDH Summary of Pesticide Surveillance Data: Louisiana, 2006-2013
- LDAF Pesticide and Environmental Programs
- NIOSH Pesticide Illness and Injury Surveillance

## Questions

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