

## TITLE

The Utility of Emergency Department Encounter Data for Tracking Pesticide-Related Health Outcomes in New York City

## THEME

This poster will contribute to the overall conference objective to build the National EPHT Network. The sub-category of relevance is to evaluate a potential data source for pesticide-related health outcome tracking.

## KEYWORDS

ED data, poisonings, pesticides, surveillance, health outcome

## BACKGROUND

New York City's (NYC) EPHT program has initiated a pesticide tracking system. We propose to track acute poisonings for use as one sentinel of pesticide-related health outcomes.

Data sources for pesticide poisonings in NYC currently include calls to the NYC Poison Control Center (PCC) and hospital admission data collected by New York State (NYS). Medically evaluated pesticide poisonings are reportable to the PCC, though the nature of the data often makes it difficult to distinguish actual from suspected exposures, and little symptom and severity information is available. Hospitalizations occur only in the most severe of exposures. Though NYS now mandates electronic reporting of emergency department billing data (ED), a public use dataset will not be available until late 2005. In the interim, NYC's EPHT Program expanded upon an existing injury surveillance system that abstracts ED charts from 24 NYC hospitals.

## OBJECTIVE(S)

1) To evaluate the utility of using cases "treated and released" for pesticide poisoning in EDs in the tracking of pesticide-related health outcomes; 2) To report on pesticide poisonings occurring in NYC.

## METHOD(S)

Data collection for poisonings occurred quarterly starting in the 3rd quarter of 2003 and continued through 2004. Data collection occurred for one week per quarter in each of 24 hospital-based emergency departments. The data collected was compared to PCC and hospitalization data and evaluated using the following criteria:

- Number of cases
- Accuracy and completeness
- New information gained
- Sensitivity and specificity

## RESULT(S)

A total of 17 pesticide poisonings presented in the 24 EDs during the six weeks of quarterly data collection, representing about 10% of all chemical-related ED visits. The majority of these pesticide poisonings occurred among children less

than 5 years old. Detailed data on the location, symptoms, and poisoning sources will be presented in the poster. These findings will be presented alongside data of medical and individual reports to PCC and hospital admissions over similar time frames.

## **DISCUSSION/RECOMMENDATION(S)**

Limitations of using ED visits to track pesticide poisonings include small numbers and low sensitivity and specificity. However, poisoning cases presenting at EDs are not completely captured by PCC or hospitalization data. To continue health outcome tracking of pesticide-related poisonings that result in ED visits, NYC's EPHT pesticide tracking program will cease doing ED chart abstractions in favor of utilizing comprehensive ED billing data in 2005.

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