

Overview of the National Chemical & Radiological Surveillance Program

Poison Centers (PCs)

- There are 55 poison control centers (PCs) in the United States that provide 24-hour coverage using a toll free number, 1-800-222-1222
- PCs staff remotely assess, triage, manage and follow-up with people who are exposed to harmful substances
- PCs are staffed by pharmacists, and poison information providers who are toxicology specialists

The National Poison Data System (NPDS)

- The National Poison Data System (NPDS) is a national web-based repository of data from calls to PCs
- PC data are uploaded into NPDS in near real-time, every 8 minutes
- NPDS is owned and operated by the American Association of Poison Control Centers (AAPCC) (<http://www.aapcc.org/>)

CDC Use of NPDS

CDC collaborates with AAPCC to use NPDS for public health surveillance activities including:

- Improving national surveillance capacity for public health threats
- Identifying early markers of incidents of potential public health significance (PHS)
- Enhancing situational awareness during an emerging or known public health threat

Flow Chart of How Incidents of Potential PHS are Identified from Public Health Surveillance of PC Data

Calls to national PC number are routed to local PC where PC staff

- Assess call
- Recommend therapy (as need)
- Collect information (demographic information, signs, symptoms, exposure, etc.)

Data are uploaded into NPDS in near real time, approximately every 8 minutes

Automated algorithms in NPDS identify anomalies in call volume, clinical effect volume, or by identifying calls that meet pre-specified criteria (case-based)

Call Volume

Algorithm identifies increases in call volume to a PC compared to a threshold based on historical data

Clinical Effect Volume

Algorithm identifies increased reports of specific signs and symptoms compared to a threshold based on historical dates

Case-Based

Algorithm identifies calls meeting pre-defined criteria

Criteria for Incidents of Potential Public Health Significance

A call or calls involving a reported exposure or illness with at least one of the following:

- An obvious interest to the appropriate state or national public health entity (e.g., a reportable disease)
- A call or calls of unusual severity of magnitude, involve more than 1 household (or exposure site outside the home), and with clinical effects reported
- Association with a known or suspected terrorism event
- Part of a state or national public health investigation
- An pattern not normally attributable to the implicated exposure
- An obvious geographic or spatial pattern
- A high index of suspicion, credible threat, or other rationale in the judgment of the NPDS Surveillance Team member

A team comprised of AAPCC and CDC toxicologists and epidemiologists review the data anomaly to determine if it meets pre-specified criteria for an incident of potential public health significance (PHS)

Email Notification

- CDC reviews all anomalies against PHS criteria
- If PHS criteria are met, CDC determines if an email notification to the state health department and corresponding PC is warranted
- Email contains information about incident that may be needed for public health response

State health departments respond to the incident as necessary

CDC sends up a follow up survey to state health departments department 3-5 days after notification to assess public health action taken based on the notification and the incident