

Topic area:

Indicators

Use of indicators in the EPHT

Abstract Submission Requirements

Abstracts must conform to a standard structure, including each of the headings listed below. Each heading should be followed by a colon.

Title: Linking carbon monoxide poisonings to power outages using hospital emergency department data; A feasibility assessment for public health surveillance

Keyword(s): "Carbon Monoxide poisoning", "power-outage data"

Background: Carbon monoxide (CO) intoxication is the most common cause of unintentional poisoning in the US. Clusters of CO poisoning related to large-scale power outages have been published.

Objective(s): Assess the feasibility of: 1) Using emergency department (ED) data for detecting and describing CO poisoning morbidity, 2) Linking CO morbidity and power-outage data.

Method(s):

CO cases (a primary diagnosis of carbon monoxide -- ICD-9CM 986.0, excluding intentional poisonings) were identified in Maine hospital ED data from 2000 to 2002 (inclusive). Occupationally related (OR-C) and non-occupationally related cases (NOR-C) were described by age, sex, and occurrence over time; NOR-Cs were also described geographically. A pilot project, in collaboration with power utility companies, will be initiated to assess the utility of linking-power outage data.

Result(s): ED data: Among the 325 cases identified, the median age was 33.3 years; 175(53.9%) were male; there was notable seasonality, with more cases occurring in winter. Of the 36(11.1%) OR-C cases, the median age was 38.8; 58.3% were male. At least 14(38.9%) OR-C cases appeared related to two identified occupational exposure events.

Linkage to power outage data: Information about power outages is tracked by Maine power utilities; data gathered includes the beginning and ending date/time and town affected. Samples of these reports were assessed for their usefulness as part of a CO tracking system. A pilot collaboration with the largest power provider is being planned to assess: the feasibility of data linkage with NOR-C cases; the contribution of power outages to CO poisoning and; the potential for real-time linkage of health outcome and hazard data.

Conclusion(s): Linking power outage data with traditional health outcome data may enhance our understanding of the causes and determinants of CO poisoning. It may also provide a mechanism for early detection and prevention of this preventable condition through development of a PAMS.

In total, the abstract text must contain no more than 300 words. Abstracts must be in English. Please do not include images, charts, or tables.

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