***Title*:** State Capacity to Address Non-Communicable Disease Clusters: A Web-Based Evaluation

***Keywords*:** disease clusters, environmental epidemiology, cancer clusters

***Background*:** With the increase in data available from public health tracking information, it is likely that clusters of disease will be identified. Tracking information offers many opportunities to learn more about disease clusters and strategies to prevent them. Challenges include identifying causal information for elevated rates of disease and addressing potential disease clusters with limited resources and personnel.

***Objectives*:**
To identify:

- The capacity of state public health agencies for addressing non-communicable disease clusters.

- Protocols used by state agencies to address potential disease clusters.

- Trends in state health department-led cluster studies.

To explain how environmental public health tracking initiatives can support cluster investigations.

Methods: State public health agency web sites were searched for information on non-communicable disease clusters, including responsibility and authority; reporting and response protocols; disease endpoints; completed cluster investigations; and methods for communicating with the public.

Results: Twenty-six states list a contact to address non-communicable disease clusters, with many of these only addressing cancer clusters. Twelve states indicate having a cluster response team. Only fourteen states define the term “clusters” and 14 specify the reporting protocol an individual should follow if a disease cluster is suspected. The disease endpoints that are investigated for potential clusters vary from state-to-state, and include cancers, lead poisoning, adverse pregnancy outcomes, neurological disorders, respiratory disorders, immune system disorders, and occupationally-related diseases.

Conclusions: Most state agencies lack capacity and infrastructure to address non-communicable disease clusters and do not collect data necessary to identify potential disease clusters. Public health tracking will allow identification of diseases with potential environmental etiology and will provide opportunity to investigate suspected clusters that can lead to prevention of future cases.

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