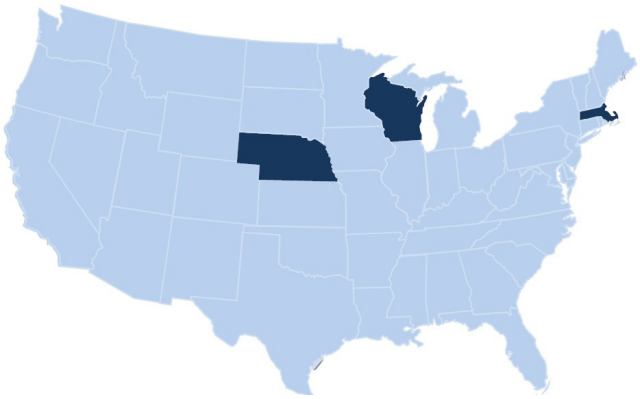
CDC/CSTE STATE-BASED CARDIOVASCULAR DISEASE SURVEILLANCE DATA PILOT PROJECT

Surveillance data may be used to inform decisions surrounding strategies and recommendations for enhancing public health policies in the area of surveillance, prevention, and mortality reduction. State health departments have access to many sources of data to determine trends and patterns of diseases as well as related risk factors. While there are multiple sources of surveillance data, there are also gaps in surveillance and therefore many opportunities to improve surveillance and its applicability for public health action. One such opportunity evaluates the usefulness of existing surveillance data sources to track cardiovascular disease (CVD).



In 2010, CSTE and the Centers for Disease Control and Prevention (CDC) provided support for three Heart Disease and Stroke Prevention-funded states (Massachusetts, Nebraska and Wisconsin) to perform linkages of existing data sources to improve the quality of CVD data and provide needed information for monitoring CVD morbidity and mortality and its risk factors.

Massachusetts linked six databases (Behavioral Risk Factor Surveillance System, hospital discharge data, mortality data, census data, Health Professional Shortage Area designations, and a community survey of policies and programs) to create community-level profiles that would give a more comprehensive picture of environmental risk factors in development of CVD. Individual-level data were first aggregated and then linked to town-level data. This allowed for the identification of CVD risk factor and hospitalization hotspots where resources could be focused to reduce the burden of CVD.

Nebraska focused on linking emergency medical services (EMS) data, hospital discharge data, and mortality data for stroke and CVD patients to improve the consistency of CVD diagnosis coding and assess the outcomes of care. Based on their work, the Nebraska Division of Public Health epidemiologists have begun to work with a number of hospitals in the state to expand their capability of syndromic surveillance to include CVD indicators for inpatient syndromic surveillance using hospitalization data to identify and characterize CVD.

Wisconsin de-duplicated and coupled death certificate data with inpatient discharge records using both probabilistic and deterministic matching methodologies. The results of these opposing approaches were analyzed and found to produce generally similar results.

This project is a first step in developing better regional understanding of CVD burden. The final reports of each state's linking methodologies and practices will be available at www.cste.org to inform other states completing similar work in CVD or serve as a model for providing more comprehensive data on other episodic chronic diseases.

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This publication was supported by Cooperative Agreement Number 5U38HM000414-03. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of CDC.