

TITLE

Implementation of a Cancer Query Module in Utah's Indicator-Based Information System for Public Health (IBIS-PH)

THEME

Disseminate Credible Information to Guide Policy, Practice and Other Actions to Improve the Nation's Health

KEYWORDS

indicator-based query system, cancer incidence rates

BACKGROUND

Utah's state and local health departments routinely receive requests to conduct cluster investigations from residents concerned about perceived elevated rates of cancer in their communities. Conducting these investigations places an undue burden on the limited staff and resources, and cannot provide results in a timely manner. In some instances, staff do not have access to the data or have not adequately been trained to conduct cluster investigations. One tool that may be useful in resolving this issue is Utah's Indicator-Based Information System for Public Health (IBIS-PH), a web-based system that provides information on indicators of important public health constructs. The Utah Department of Health regularly examines these indicators to: 1) evaluate progress towards goals; 2) guide policy decisions; 3) enhance data collection and reporting capacity; and 4) provide comprehensive information of Utah's health and health care system.

OBJECTIVE(S)

The Utah Environmental Public Health Tracking Program (UEPHTP) collaborated with the IBIS-PH program and the Utah Cancer Registry to design, implement, test, and deploy a data query tool that will allow state and local health officials to obtain statistics on the spatial distribution of cancer incidence and promptly provide responses to concerned residents.

METHOD(S)

Cancer incidence data was spatially standardized to Utah 2000 census tract geographic area, and summarized by year of incidence, sex, 5-year age group, and anatomical cancer site. Population data for 1970, 1980, 1990 and 2000 were spatially standardized to the Utah 2000 census tract geographic area using commercially available census data. Inter-census populations were extrapolated by a weighted linear regression method that incorporates quarterly county population estimates. The cancer query module is accessible to a specified user group via the IBIS-PH system. Users define a cohort by cancer type, location, and time. These parameters are incorporated into SAS, which returns age and sex adjusted incidence rates for the query cohort.

RESULT(S)

The IBIS-PH cancer query module is in beta-testing with select state and local health officials and initial feedback is positive. The module output is comprised of data tables, graphs, and contextual information to assist users in adequately interpreting the results of their data queries. To facilitate correct assignment of census tract for any given area, a feature

was added that illustrates the census tract boundaries with respect to zip codes. To date, 62% of the 129,089 cancer incidence records for the State of Utah have been geocoded; the geocoding success rate rises to 88% for cases recorded after 1989. Efforts are underway to improve the number of records geocoded, after which, the module will be moved into its final production phase.

DISCUSSION/RECOMMENDATION(S)

The state and local health departments in Utah do not have adequate personnel and resources to conduct the rising number of cancer cluster investigations requested by concerned residents. The implementation of a web-enabled query tool allows health officials access to the cancer registry data, provides automated analyses of the data, and supplies immediate results with context-specific assistance to interpret the data. The IBIS-PH tool may be expanded to include other environmentally related public health outcome indicators in the future.

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