Success Stories

Name of the NPCR Program: Missouri Cancer Registry (MCR)

Title of the Initiative, project or type of data use:
Making Cancer Incidence Data More Accessible and Understandable

General timeframe (year(s) or months) during which the initiative/project/data use occurred:
"Top 10 Sites by County" – Planning: January - June 2009. Implementation: June 2009, with annual updates.
"InstantAtlas™" – Planning: Fall 2009. Implementation: Calendar year 2010, with annual updates.

Statement of public health issue, concern or problem:
Missouri Information for Community Assessment (MICA), which provides a tabular format for viewing cancer case counts and incidence rates by site, age group, gender, race, etc., at the state, regional and county level (http://health.mo.gov/data/mica/CancerMICA/), is an interactive tool that has provided useful and meaningful cancer incidence data to epidemiologists and health professionals accustomed to reading and interpreting data tables for more than a decade. However, it is often difficult for the general public, and even some health professionals, to understand or relate to data presented in "big tables with lots of numbers." Health consumers and educators expressed a desire for a convenient way of obtaining local-level Missouri cancer incidence data in a user-friendly format.

Evidence that the central registry was effective in addressing the issue, concern or problem:
In an effort to improve visualization of cancer incidence data in a user-friendly format, MCR undertook two projects. The first project was to produce an interactive map showing all 115 Missouri counties (114 counties plus the City of St. Louis) (http://mcr.umh.edu/mcr-county-level-data.html). With one click, the user can view the top-ten sites by percentage in any given county for males, females and total population for a five-year period (currently, 2004 – 2008). See the attached screen print of the state map and two selected counties. Note: Where case counts are less than six per specific site, fewer than 10 sites will be displayed.

Next, we adopted the use of InstantAtlas™ software to present county-level health data for the state of Missouri in a dynamic new report generator. InstantAtlas™ is an interactive, user-friendly system for visualizing health-related data in which a wide range of health indicators can be viewed in either single or double map displays combined with tables, time-series charts, bar charts and scatter plots. This technology has allowed MCR to present data in a more user-friendly way so that the public, health educators and others can view and display data in a variety of formats that can be easily understood and will meet the user's needs (http://mcr.umh.edu/mcr-instantatlas-data.html). See attached examples. Web pages can be printed and emailed to selected recipients.

Implications regarding this successful effort by the central cancer registry:
The "Top Ten Sites" has been very popular with the general public and staff of local public health agencies. Following introduction of the Top Ten Sites, there was an increase in visits to

our website and a decrease in the number of phone calls requesting local-level data. This trend has continued with the introduction of InstantAtlas™.

InstantAtlas™ allows MCR operations and research staff to present the statistical significance of our cancer incidence data at the county level. By improving data visualization, we are able to develop better communication with the general public and engage health policy makers in more informed decision making.