Public Abstract

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Title:STEPS IN TRANSFORMING THE MISSOURI CANCER REGISTRY (MCR) FROM AN INCIDENCE REGISTRY TO A SURVIVAL REGISTRY

Female breast cancer (FBC) is the most common invasive cancer among women of all races and ethnicities in the United States (US). About 12 percent of women in the United States will be diagnosed with breast cancer at some point in their lives.

The Missouri Cancer Registry (MCR) needs to be transformed from an incidence registry to a survival registry to accurately measure the impact of Missouri public health programs. In addition, it needs to use interactive mapping reports of maps and statistics to improve data visualization. Many studies have concluded the importance of estimation of cancer incidence, mortality and survival together.

We aimed to estimate breast cancer burden in Missouri during recent years in terms of breast cancer incidence, mortality and survival rates; to visualize these results; and to assess the usability of the Missouri Cancer Registry and Research Center's (MCR-ARC's) interactive maps and profile reports.

FBC survival data were calculated from 2004 to 2010 after matching MCR's FBC cases with Missouri's state death records, the Social Security Death Index (SSDI) and the National Death Index (NDI). FBC incidence and mortality rates were measured from 2008 to 2012. Survival and incidence data were measured for each senate district by age, race, stage and grade at diagnosis. Mortality data was measured for each county and Senate District Groups of Counties by age and race. The rates were visualized using InstantAtlas. A scoping review and a two round usability testing study were conducted to explore perceptions of public health professionals about the use of geographic information systems and to assess the usability of the MCR-ARC's published maps.

The dissertation results could be very informative for Missouri decision makers and public health leaders. InstantAtlas reports might enhance the communication between collaborators from different fields related to breast cancer and to disseminate female breast cancer data and inform health professionals and the public.