

2021 NPCR TEXAS SUCCESS STORY

Texas Cancer Registry: Melanie Williams, PhD

Sub-County Level Data Analysis and Display: A Pilot

National Program of Cancer Registries SUCCESS STORY

SUMMARY

Cancer incidence and mortality data are most often displayed at the national, state, or county level due to privacy concerns, as well as concerns over the reliability of the statistical rates. However, data displayed at such a high level are often of limited use for cancer-related public health efforts at the local level.

CHALLENGE

Until recently, the geographic specificity in cancer incidence data being geocoded at the census tract level was not readily available. Additionally, standardized sub-county level aggregations of census tracts were not developed for ensuring the maximum number of sub-county areas to be displayed with minimal privacy or statistical reliability/stability concerns.

SOLUTION

To address this significant barrier in presenting sub-county level cancer incidence data, the Centers for Disease Control and Prevention's (CDC's) National Environmental Public Health Tracking Program (NEPHT) and the CDC's National Program of Cancer Registries (NPCR) asked for registry volunteers to assist their efforts in working together to address how best to display cancer data at a more local, sub-county level. Texas was one of 21 registries that agreed to participate in a pilot project examining the feasibility of displaying data at the sub-county level.

Registries were grouped into three Regions with Texas participating in Region 3 along with Arizona, California, Idaho, North Dakota, Utah, and Washington. Other regions consisted of Florida, Georgia, New Jersey, North Carolina, Puerto Rico, Rhode Island, South Carolina, and Virginia in Region 1, and Louisiana, Michigan, Minnesota, Missouri, Nebraska, and Wisconsin in Region 2.

Participants in each region examined presenting sub-county level analyses for lung cancer and lung cancer stratified by sex, as well other leading cancer sites, such as prostate cancer, liver and intrahepatic bile duct cancer, colorectal cancers, non-Hodgkin Lymphoma, female breast cancer, and melanoma.

RESULTS

States were provided with the necessary population data from the U.S. Census Bureau by age, sex, and census tract. A SAS statistical software program was provided to calculate rates, as well as proposed spatial aggregations and shape files for maps.

The NEPHT, NPCR, and state registries determined that it was feasible to display an average annual number of cancer cases and incidence rates for prostate, colorectal, non-Hodgkin Lymphoma, female breast, and melanoma cancers. The periods of time ranged from 5 to 10-year periods, and person aggregations were for 5,000 or 20,000 persons, depending on the cancer site.

SUSTAINING SUCCESS

To sustain success, the Texas Cancer Registry is awaiting its departmental Institutional Review Board and Research Executive Steering Committee approval to submit census tract level data to the CDC's NPCR for use by the NEPHT in presenting sub-county level counts and incidence rates at the local level. The TCR also plans to continue working with CDC on Phase 2 of the pilot project to explore the feasibility of including more rare cancers and smaller populations in the future.

REGISTRY CONTACT INFORMATION:

512-776-3080

<http://www.dshs.texas.gov/tcr/home.aspx>



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention