

NAACCR Annual Meeting, June 2007

Section D: GIS and Spatial Epidemiology – Part I (8:30 am June 7, 2007):

GEOGRAPHIC CLUSTERS OF ORAL CANCER IN FLORIDA

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Background: A multi-disciplinary team addressing tobacco related issues has been working to identify geographic areas in Florida with higher burdens of tobacco-associated cancers. Identification of tobacco-associated cancer clusters can be a useful public health tool for targeting communities which require the attention of the public health community.

Methods: Behavioral, demographic, and cancer incidence and mortality data were analyzed using SatScan spatial scan software to identify clusters of oral cancers at the block group level. Numerous SatScan runs were conducted with varying program parameters to examine variation in results.

Results: A framework for the systematic identification of high risk communities in need of tobacco-related interventions was developed. Ultimately, small, overlapping clusters were identified when evaluating both invasive and late stage oral cancers. Larger clusters were identified for mortality data that only minimally overlapped the incidence clusters.

Implications: Interpretation of these results requires a careful review of the number of cases in a cluster as well as the underlying demographic characteristics of the community. Specific methods were developed to aid in the reproducibility and applicability of the results for community interventions.

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