

National Health Interview Survey (NHIS)-Florida Cancer Data System (FCDS) Data Linkage Project

David Lee, Jill A MacKinnon, Christine S Cox, Youjie Huang, Donna M Miller, Brad Wohler, Tara Hylton, Gary Levin, Lora E Fleming

*Florida Cancer Data System (FCDS), Sylvester Cancer Center, University of Miami, Miami, FL;
Special Projects Branch, National Center for Health Statistics (NCHS), Hyattsville, MD;
Chronic Disease Epidemiologic Group, Florida Dept of Health, Tallahassee, FL.*

OBJECTIVES

This Pilot Demonstration Project is designed to demonstrate and evaluate the feasibility of performing a record linkage between the National Health Interview Survey (NHIS) of the National Center for Health Statistics (NCHS) and the Florida Cancer Data System (FCDS) databases. The Pilot Project will provide the opportunity to assess the feasibility of linking NCHS national population-based survey data with individual state cancer registries and to define the logistics involved in conducting such linkages with individual state cancer registries. This linkage will provide highly enriched data for incident cancer cases who have participated in the NHIS, including additional demographic, socio-economic, health and health behavior (including cancer health behaviors) data. Linking the NHIS survey participants' demographic, socio-economic, health conditions, health care utilization, health insurance, and health behaviors with the FCDS cancer incidence cases data will maximize the scientific value of both data resources and provide researchers with an opportunity to conduct a wide array of cancer studies.

METHODS

The NHIS is an annual, cross-sectional household survey of the U.S. civilian non-institutionalized population conducted by the NCHS since 1957. Funded by the State of Florida and the Centers for Disease Control and Prevention (CDC), the FCDS is the incidence cancer registry for the state of Florida since 1981. The initial linkage will be the 1987 NHIS data with the entire FCDS database, with plans to expand the linkage to the other NHIS Survey years in the future. The NHIS variables include: demographics, socio-economics, occupation/Industry, morbidity measures (e.g. lost work days, functional

capabilities), health endpoints, risk factors (e.g. smoking, alcohol), mortality (from National Death Index [NDI] linkage), cancer supplements (e.g. cancer risks and screening behaviors); the FCDS variables include demographics, cancer diagnosis, pathology, cancer treatment, mortality (from NDI linkage), and geocodes.

RESULTS

NCHS will develop restricted-use linked de-identified analytic NHIS-FCDS files and make them available for research use to NCHS Research Data Center (RDC)-approved investigators. The NCHS RDC is a secure data access center (<http://www.cdc.gov/nchs/r&d/rdc.htm>). The linked NHIS-FCDS files will be made available for approved bona fide public health research projects within the NCHS Research Data Center (RDC).

CONCLUSIONS

We anticipate that the linked NHIS-FCDS will be utilized in a variety of cancer related public health and epidemiologic studies. The ultimate goal of the proposed Pilot Study is to develop a model for conducting linkages between NCHS population-based Surveys [including the NHIS and the National Health and Nutrition Examination Survey (NHANES)], and the National Program of Cancer Registries (NPCR) of the CDC and the Surveillance, Epidemiology and End Results (SEER) of the National Cancer Institute (NCI) within the US.

More information:

Dr David Lee (dlee@med.miami.edu)