

**STATE CENTER
FOR HEALTH STATISTICS**

**ANNUAL REPORT
FOR
FISCAL YEAR 2003**

North Carolina
Department of Health and Human Services
Division of Public Health
State Center for Health Statistics
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SCHS FISCAL YEAR 2003 ANNUAL REPORT

Section I. Introduction

Foreword

The *SCHS Fiscal Year 2003 Annual Report* describes the work done in the State Center for Health Statistics (SCHS) during this past year and summarizes current and planned activities. The Report also presents the challenges that are expected to confront the SCHS during the upcoming fiscal year. The SCHS operates in the Legal and Regulatory Affairs Section in the Division of Public Health within the Department of Health and Human Services.

Vision Statement

The State Center for Health Statistics, by providing high-quality information on the health of North Carolinians, will positively influence decision-making and health policy, thereby improving the health of all our citizens. By making better use of our human and technical resources, we strive to provide health data to policy makers, researchers, and citizens as efficiently and quickly as possible. Internally, the State Center seeks to create a better work environment, resulting in both successful employees and satisfied customers.

Statutory Authority

The SCHS is authorized by North Carolina General Statute 130A-373 to collect, maintain, and analyze health and health-related data and to explore new or improved methods for obtaining data. The Center is also charged with managing the state's Central Cancer Registry (CCR) as established by General Statute 130A-208 and the Birth Defects Monitoring Program (BDMP) as established by General Statute 130A-131.

History

Created as the North Carolina Bureau of Vital Statistics by the State Legislature in 1913, the Bureau evolved by 1980 into the State Center for Health Statistics. In 1980 the Governor directed the state health agencies (then known as the Division of Health Services) to administer the statistical activities mandated by the 1978 Public Law 95-623. Under this Act, the Division, through the State Center, was to coordinate all health data activity in the state and to explore new ways of obtaining, analyzing, and disseminating health data. Since 1998, the State Center has been part of the Division of Public Health in the N.C. Department of Health and Human Services.

Section II. Developments in SCHS During Fiscal Year 2003

Background

Prior to FY2003, SCHS contained two additional units: Vital Records and Health Informatics. Vital Records became its own section. Health Informatics staff were assigned to three separate agencies in DHHS, depending on their function and duties. Some were assigned to the new Vital Records Section, others transferred to the Administrative Support Section, and others to the newly created Bioterrorism Branch in the Epidemiology Section. Since March 2002, the SCHS has operated under its new structure, which has helped focus its mission of collecting, analyzing and disseminating public health information.

Organization of the SCHS

SCHS is presently comprised of four programmatic units and one administrative unit.

1. Birth Defects Monitoring Program (BDMP)
2. Central Cancer Registry (CCR)
3. Geographical Analysis Unit (GAU)
4. Statistical Services Unit (SSU)
5. Operations, Quality Control, and Administration Unit

Descriptions of these units are given in Section III.

Changes During Fiscal Year 2003

Budget and Personnel: As with many other state agencies, SCHS suffered two rounds of budget cuts during FY2003. SCHS managed to continue operations without loss of positions but had to curtail some operations funded from state appropriations. In order to manage these cuts, SCHS has continued to maximize the use of Federal Financial Participation (FFP) funds, grants, contracts, and receipts in order to maintain core functions and to enhance some categorical services such as the Cancer Registry and Birth Defects Monitoring.

Notwithstanding the cuts, SCHS experienced a bit of growth during FY2003. In particular, its Birth Defects Monitoring Unit, in conjunction with UNC-Chapel Hill, received an award from CDC as a Center for Birth Defects Research and Prevention. This allowed the hiring of four new employees under a grant-funded receipt contract to enhance monitoring and analytic capacity in the state. The new staff was hired during spring 2003.

Two other new positions were added elsewhere in SCHS. One was an Applications Programmer position in the Cancer Registry to help process and maintain the cancer database. The second position, also funded from a CDC grant to the Cancer Registry, was created to increase ability to conduct cancer cluster studies using Geographical Information Systems (GIS) technology. One of these positions was filled during the year, while hiring for the other position is well under way.

Combined with another three positions which were filled in the Birth Defects Unit during the Fall of 2002 as a result of legislative increases during FY2002, SCHS experienced a net gain of nine employees during 2002-03, going from 55 to 64 FTE's.

These positions are:

- 1 Director
- 5 Managers
- 5 Administrative Support staff
- 22 Field Staff or Quality Control staff
- 27 Statisticians
- 4 Applications Programmers, Computing Consultants, or GIS specialists

Web Development: SCHS increased the amount of information on its web site tremendously during FY2003 to 10,000 pages and documents. Increasingly, the web site has become a primary source for external and internal data users. All regular and special publications are now accessible on the web at the SCHS web site:

<http://www.schs.state.nc.us/SCHS/>.

The increased use of the SCHS web site by the public and other users is reflected in the increased number of requests for pages and documents related to health statistics. Excluding robots (automated programs that gather web-based information), the number of requests in FY2001 was 157,392. The next year it increased 36 percent, to 214,377. The number increased even more (56%) in FY 2003, to 334,549.

Furthermore, SCHS has increased web support to other public health agencies by developing a web site for the Early Intervention Branch and taking over the maintenance of the Office of Minority Health and Health Disparities web site. SCHS has continued to maintain the Epidemiology and Vital Records sections' web sites and hosts the N.C. Healthy Schools web site. In addition, SCHS provides support for accessibility and online publications for the division and the department, largely by one FTE staff of the Geographical Analysis Unit (GAU).

Services to Users and Public: SCHS has as a core mission the dissemination of health information to administrators, policy makers, researchers and the public at large. Although information is distributed in printed form as well as on the web, many of the services are provided to people who call the SCHS main telephone line requesting health information. Despite a reduction of the positions devoted to answering data requests, the SCHS has arranged for this important function to be maintained with little decrease in timeliness or quality of responses.

The simpler requests, requiring referencing an existing publication or the web, can be answered by support staff. However, most of the requests require more extensive search or programming. These requests are submitted to the statisticians in the various units within SCHS. The vast majority of these requests are answered within a few hours or days, at most. Only complex questions requiring extensive SAS programming take longer than one week.

SCHS tracks the information services that it provides to others. Using that tracking system we know that there were at least 2,188 activities where health or demographic information was provided to users from July 1, 2002 to June 30, 2003.

The SCHS also handles many phone calls related to programs or information that are not recorded in the activity reports. An estimate of the number of phone calls handled during FY2003 by SCHS, over and beyond those reflected in the activity reports, is about 8,000.

Publications: SCHS has a wide variety of publications. Many of these publications are part of the core function of disseminating health information. Other publications are printed in collaboration with other health agencies when focusing on a particular issue of interest to that agency. The State Center also has a system of special publications that reflect salient issues of public health interest. Occasionally, the SCHS will publish a Statistical Primer explaining a technical issue concerning statistics or information processing. Staff of the SCHS also engage in extensive collaborations with academicians and other health practitioners, sometimes resulting in joint authorship in a refereed professional journal.

A title list of many of the publications done by the SCHS can be found on the web site at <http://www.schs.state.nc.us/SCHS/pubs/title.cfm>.

During FY2003, SCHS staff had sole or joint authorship on 13 journal publications and published 11 internal studies. Additionally, SCHS staff did over 30 presentations during the year, processed over 45,000 cancer records, investigated 26 cancer clusters in the state, produced one extensive special report investigating one cancer cluster, engaged in 39 spatial analysis projects, and answered 16 special requests for geographic analysis.

Collaborative publications usually appear in the SCHS web site under Journal Articles. Many of these collaborative publications are listed under the individual units' descriptions of activities during FY2003, found in Section III.

Collaborations: The four programmatic units in SCHS engage in extensive and varied collaborations with agencies ranging from those within the Division of Public Health to national organizations and universities. Below are four examples of collaborations with other agencies carried out by SCHS during FY2003.

1. The Birth Defects Monitoring Program worked closely with the North Carolina Folic Acid Council in order to assess the progress being made in reducing the prevalence of neural tube defects through folic acid related public health initiatives. Preliminary findings indicate that the prevalence of neural tube defects has declined by 38 percent between 1995 and 2002. Further work is currently under way to identify target populations for which increased education about folic acid are most needed.
2. The Central Cancer Registry worked with the Wake Forest University Medical School on a study of appropriateness of cancer care for breast and colon cancer. This study was authorized by the N.C. Advisory Committee for Cancer Coordination and Control. The final report will

be published in late 2003. Several investigations of reported cancer clusters have been carried out in collaboration with the Occupational and Environmental Epidemiology branch. Investigations done in the past fiscal year include brain cancer studies in Rowan, Vance, and Carteret counties.

3. The Geographic Analysis Unit has been collaborating with the HIV/STD Prevention and Care, Special Studies Unit for several years on Syphilis Elimination. Syphilis cases are mapped in the six counties with the highest morbidity to target areas where education and screening resources should be placed. This collaboration has proved successful, with lower syphilis rates reported in 2002.
4. Staff of the Statistical Services Unit worked closely with the Office of Minority Health and Health Disparities to develop a comprehensive Report Card on Racial and Ethnic Health Disparities in North Carolina. Areas addressed were social and economic well-being, maternal and infant health, adult health, communicable diseases, violence and injuries, child and adolescent health, and risk behaviors and health promotion.

A partial list of agencies with which SCHS collaborated on different projects during FY2003 is given below:

Division of Aging, DHHS
Division of Medical Assistance, DHHS
Office of Minority Health and Health Disparities, DHHS
Office of Research, Demonstrations, and Resource Development, DHHS
Women's and Children Section, DPH
Epidemiology Section, DPH
Vital Records Section, DPH
Chronic Disease and Injury Section, DPH
Office of Healthy Carolinians, DPH
N.C. Chapters – of Dimes
N.C. Child Fatality Task Force
American Cancer Society
Indian Health Service
Local Health Departments (LHDs)
Cecil G. Sheps Center for Health Services Research
UNC School of Public Health
UNC Lineberger Cancer Center
Duke University Medical Center
Department of Maternal-Fetal Medicine, Wake Forest University School of Medicine
Columbia University

Section III. SCHS Units

Operations, Quality Control, and Administration Unit

Description

The Operations Unit is responsible for the day-to-day management of fiscal, personnel, training, and facilities/repair functions within the State Center. This unit facilitates the operations of the programmatic units while also ensuring that SCHS complies with all DHHS and DPH policies and requests. The unit has responsibility for tracking and monitoring purchases and payments, contracts, grants and assets.

Services

- Implement SCHS, section, division, departmental, state and federal policies, procedures and strategic plans with respect to budget, purchasing, spending, personnel, contracts, MOUs, grants and safety.
- Develop and oversee all SCHS state funds, receipts, Medicaid reimbursements and federal award budgets and activities, including accounts receivable and payable and contract expenditures. Provide budgetary analysis and data to SCHS, section, division and departmental managers.
- Prepare and/or monitor paperwork and revisions for all personnel and salary actions and track and report on SCHS employee training activities.
- Plan for SCHS space, furniture, and equipment needs, and arrange for office space rentals, requisitions of equipment, and furniture purchases.
- Ensure all new SCHS employees receive the SCHS Starter Kit, including the SCHS Standards Operating Procedures (SOP) guidebook, and starter supplies.

Accomplishments in FY 2002-2003

- By rewriting the job description, successfully reallocated position 25050 from a Processing Assistant III SG 57 to an Administrative Secretary II SG 60 with approval for an additional 5 percent salary increase in addition to the 10 percent increase already received.
- Developed standardized procedure for communicating with budget and purchasing/payables clerks. Although one SCHS support position was relocated to the Division Central Office due to centralization, the Unit maintained rapid responses to SCHS budget, purchase, and payment needs.
- Ensured installation of security doors and keypads for all of Cotton Building.
- Began the overhaul of the SCHS central file system by establishing and implementing standardized procedures for keeping files updated and purged according to state records retention schedules and the Director's guidelines. The Administrative Secretary coordinates these efforts.

- SCHS FAS Inventory Team began implementing a Financial Management Database on the shared drive or SCHS Intranet to capture data on purchase requests, ordering, paying, registering on the FAS system, surplus and removing items from the FAS system.
- Formed *de facto* IT Planning Team to ensure that all required IT purchase needs were identified, specified and purchased from appropriate budgets.
- Successfully completed and approved all IT e-procurement purchases.
- Increased amount of P-card purchasing power.
- Completed Org-Plus Cross-Training.
- Established framework for updating and finalizing SCHS Standard Operating Procedures (SOP) and placed e-files on shared drive to ease document revision by the SCHS Operations Team.
- Ensured that HIPAA and Workplace Harassment mandatory training was completed by all SCHS eligible staff and certification forms signed and turned in to DPH within specified deadline.

N.C. Birth Defects Monitoring Program

Description

The North Carolina Birth Defects Monitoring Program (BDMP) was formally established by the N.C. General Assembly in 1995. The BDMP ascertains data on infants who are born with serious congenital anomalies diagnosed within the first year of life (approximately 4,000-5,000 infants per year). Data are collected by trained field staff who systematically review and abstract hospital medical records, supplemented by information from administrative health databases such as hospital discharge data, vital records and other sources. This intensive method of case ascertainment provides the most complete, accurate and timely data on the incidence of birth defects, thereby enhancing its usefulness to public health programs. The program maintains a central registry with patient identifying information which is considered confidential under state law. The BDMP works closely with other sections in public health, including genetics and Children Services Coordination (CSC), as well as with university-based researchers, advocacy groups and other stakeholders. In addition, the BDMP carries out data analyses for the North Carolina Child Fatality Prevention Task Force and maternal mortality surveillance, and provides other statistical support to programs within the Children and Youth Branch of the Women's and Children's Health Section (WCHS).

Services

- Respond to inquiries from health departments, physicians, legislators and the public concerning the occurrence of birth defects in their communities.
- Provide data needed to help design, target and evaluate public health prevention activities.
- Conduct descriptive epidemiological studies of risk factors for birth defects in North Carolina, and collaborate with universities and others on etiologic studies of birth defects in order to identify new avenues of prevention.

- Improve delivery of services to children with special needs through identification and referral to appropriate services.

Accomplishments in FY 2002-2003

- Three new state-funded positions that were created in FY 2001-2002 and subsequently frozen have been filled. These positions are a Field Supervisor and two Surveillance Specialists.
- The seven BDMP positions that are funded by state appropriations have been established to draw FFP, following the approval of the MOU between SCHS and DMA.
- The BDMP, in collaboration with UNC Department of Epidemiology, was awarded a five-year cooperative agreement from CDC to establish a N.C. Center for Birth Defects Research and Prevention. North Carolina is one of eight states being funded to participate in the National Birth Defects Prevention Study, which is the largest ongoing case-control study of birth defects in the world. Five new BDMP staff positions have been hired through this cooperative agreement.

Central Cancer Registry

Description

The Central Cancer Registry (CCR) collects, processes and analyzes data on all cancer cases diagnosed among North Carolina residents. All health care providers are required by law to report cases to the CCR (as in nearly all other states), but the primary data source is the hospitals of the state. The CCR supplements hospital data with reports from physicians who diagnose cases that are not seen in a hospital. Death certificates and pathology laboratory reports are used to help identify cases that are missed in the routine reporting. Duplicate reports are consolidated in the data editing process. This is primarily a cancer surveillance activity, monitoring the incidence of cancer among the various populations of the state.

Services

The CCR collects and organizes data for use by:

- State and county health departments, to target resources for health education and screening services.
- Researchers, for investigations into the causes and treatment of cancers.
- Public health advocates, for focusing attention on the risk of cancer.
- The CCR staff, to educate the public and provide evaluations of geographic and behavioral risk. Summary data are published on the Internet and in several periodicals.
- National organizations [Center for Disease Control (CDC) and North American Association of Central Cancer Registries (NAACCR)] that pool the data for national estimates of cancer incidence. These data submissions are also used to evaluate the quality and completeness of the CCR data.

Accomplishments in FY 2002-2003

- The CCR migrated its data management system from an MS Access-based system to an Internet-based system. This allows instantaneous feedback about data quality to facilities submitting data and it provides much more automated processing of the data, resulting in more staff efficiency and quicker access to the data.
- The CCR has been able to fill most of its vacant positions and now has a very highly qualified, motivated and competent staff.
- The CCR was certified by the North American Association of Central Cancer Registries (NAACCR) as a high-quality registry for the fourth consecutive year.
- With the additional staff, CCR has begun to systematically access new data sources (pathology laboratory data and death certificate data) to complement what is mostly a hospital-based data collection system.
- The CCR is a member of the North American Association of Central Cancer Registries (NAACCR), seven staff members belong to the National Cancer Registrar's Association, and 10 staff members belong to the Association of North Carolina Cancer Registrars. The CCR has three staff members who serve on the boards of NAACCR and the National Cancer Registrars' Association (NCRA), four staff members who were committee members of these organizations, three staff members who served on the board of the Association of North Carolina Cancer Registrars, and one staff member who sits on the North Carolina Advisory Committee for Cancer Coordination and Control.

The Geographic Analysis Unit

Description

The Geographic Analysis Unit uses Geographic Information Systems (GIS) and other software to describe and analyze the spatial and temporal relationships that exist among mortality, morbidity, births and population characteristics, along with the environment in which they occur.

The Geographic Analysis Unit also develops and maintains the SCHS website. In addition, the Unit supports other sections in the Division of Public Health with their websites and the use of GIS.

Services

- Responds to map requests from state and local public health agencies, organizations, universities, and the public.
- Supports SCHS research, publications, and presentations by providing maps and other spatial analysis.
- Provides spatial analysis expertise to other state and local agencies and programs on long-term projects. Collaborations with other agencies include the HIV/STD Branch, the Special

Studies Unit, and the Office of Environmental Epidemiology (OEE) in the Epidemiology Section, as well as Nutrition Services in the WCH Section.

- Provides GIS technical support to other DHHS Divisions.
- Develops and maintains the SCHS website and provides support in website development for other DPH sections.

Accomplishments in FY 2002-2003

- Continued work with HIV/STD on Syphilis Elimination Project (SEP) and Outcome Assessment through Systems of Integrated Surveillance (OASIS).
- Upgraded units' computers/UNIX OS and GIS software.
- Geocoded 2001 N.C. Births, established procedure for quarterly geocoding 2002 births and deaths.
- Performed Spatial Analysis of Rowan Cancer Investigation.
- Redevelopment of Website "look."
- Implemented procedures to maintain updated information on SCHS intranet.
- Purchased and installed new web server hardware and operating system.
- Created GIS databases for Occupational and Environmental Epidemiology Branch and N.C. OneMap.
- Helped coordinate the N.C. GIS conference, at which unit staff attended and presented.
- The GAU Manager served as a member of the Geographic Information Coordinating Council (GICC) by appointment from Secretary Dempsey Benton.
- The GAU Unit Manager served as Chair of the State Government GIS Users Committee.
- The GAU Unit Manager served as a member of the North American Association of Central Cancer Registries (NAACCR) GIS Workgroup. Developed and published "Using GIS Technology in the Collection, Analysis, and Presentation of Cancer Registry Data: A Best Practices Handbook",
- Hired new staff dedicated to the collection and analysis of Cancer Registry Data.

Statistical Services Unit

Description

The Statistical Services Unit collects, analyzes, and disseminates data on the health status and health care use of North Carolinians. Staff also measure the effects that health services and programs have on the citizens of North Carolina. The Statistical Services Unit consists of three main work teams:

Survey Operations: Operates the Behavioral Risk Factor Surveillance System (BRFSS) and Pregnancy Risk Assessment Monitoring System (PRAMS) for North Carolina, two CDC-sponsored health surveys. Provides survey and data analysis support to state and local public health programs in North Carolina. Designs, tests, and conducts special public health surveys.

Vital Statistics: Produces the annual vital statistics files for data analysis and reporting, provides data for the national Vital Statistics Cooperative Program, and works with the Vital Records Section on data quality improvement efforts.

Health Services Analysis: Analyzes and disseminates data related to Medicaid, Health Choice, and hospital discharges. Staff work closely with the Division of Medical Assistance and the Office of Research, Demonstrations, and Rural Health Development on issues of mutual interest to these programs and the Division of Public Health.

Services

- Answer hundreds of requests a year from all segments of North Carolina's population.
- Maintain and link together various data sets enabling the Center to do comprehensive data analysis and health research.
- Publish a number of special research and evaluation studies and about six annual publications.
- Present educational and training sessions to public health professionals, university students, and other groups on data use, analysis and interpretation.
- Provide extensive data analyses and reports for state and local public health agencies.
- Carry out special analyses of the Health Services Information System (HSIS), Medicaid, Health Choice and hospital discharge data files.
- Produce an annual online *County Data Book* as part of the North Carolina Community Health Assessment Process.

Accomplishments in Fiscal Year 2002-2003

- Produced six major annual publications and six special reports in addition to the ones listed below.
- Published the *North Carolina Health Statistics Pocket Guide – 2001*.
- Published a special report titled *A Health Profile of Older North Carolinians*.
- Published in the *North Carolina Medical Journal* an article titled "A Review of Available Data on the Health of the Latino Population in North Carolina."
- Produced a special publication for the N.C. General Assembly titled "The Health of North Carolinians: A Profile."
- Matched Child Service Coordination data to birth certificates to enable expanded analyses related to early childhood intervention services.
- Expanded the BRFSS survey from 6,000 respondents in 2001 to more than 6,700 respondents in 2002, enhancing our ability to produce direct survey estimates for selected counties and regions.
- Published on the State Center for Health Statistics web site extensive data tables based on the BRFSS and PRAMS surveys.
- Enhanced quality control activities in the Vital Statistics Unit to improve the accuracy of birth, death, and other vital data for North Carolinians.
- Worked with Office of Minority Health and Health Disparities in publishing a *Report Card on Racial and Ethnic Health Disparities in North Carolina*.

Section IV. Summary

Fiscal Year 2003 was an eventful year for SCHS. Due to recent reorganization, SCHS was able to focus on its primary function of collecting, analyzing and disseminating health data. The Center experienced some growth associated with expansion of its Birth Defects and Cancer Registry programs, resulting in additional staff and broader collaboration with health agencies and academic institutions.

During the year, SCHS expanded its web site while supporting the maintenance of other web sites in DHHS. The Center saw significant growth in its BRFSS survey with increases in the sample size and in the number of questions designed to address specific health concerns from local and state agencies. The Center collaborated extensively with all sections of the Division of Public Health, resulting in several publications. As most state agencies, the Center was impacted by legislated fiscal cuts, restricting our capacity to continue some work we had been doing. The Center has moved to increase health information accessibility by posting all publications on its web site. The Center continues to answer thousands of inquiries each year from administrators, legislators, researchers and citizens.

The four programmatic units were productive during the year. In addition to doing their mandated and routine work, they also contributed to extensive data dissemination through regular and special reports. The Operations, Quality Control, and Administration Unit implemented and enhanced rules and procedures to achieve better compliance with divisional and departmental mandates.

The Center looks forward to future collaborations with other health agencies and will continue to use its resources to serve the health information needs of the state in an efficient and effective manner.

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