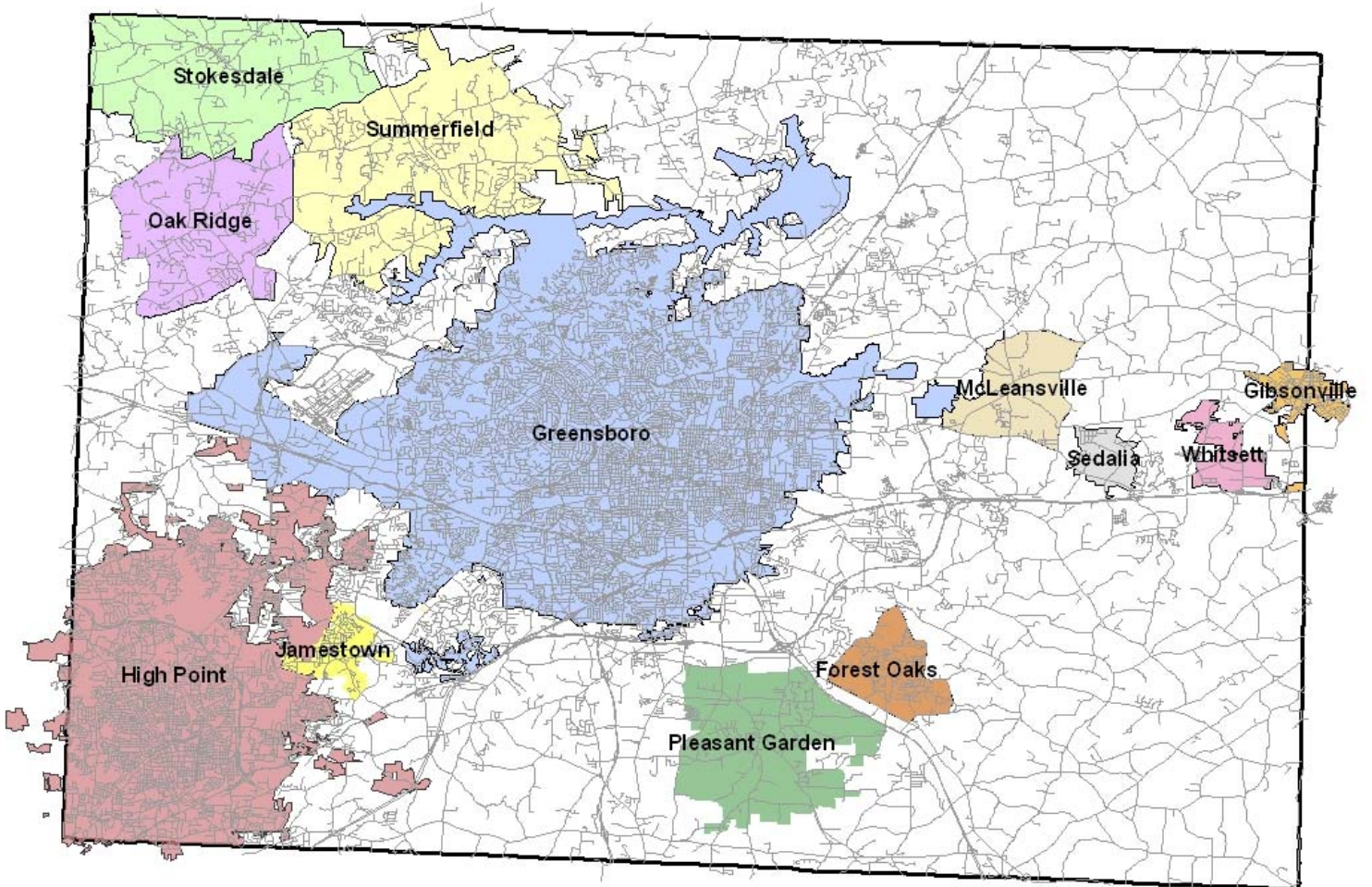


# HEALTH STATUS OF GUILFORD COUNTY

## MAP DATABOOK

2008



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## Introduction

The Guilford County Department of Public Health is pleased to make available the 2008 Guilford County Map Databook. The Health Department collects much of the health indicator data presented in the Map Databook in the course of providing services to the public. By North Carolina law, many infectious diseases are required to be reported to local departments of health. Other data are collected in the form of vital registration data; for example, birth certificates and death certificates. All county health departments provide these data routinely to the North Carolina State Center for Health Informatics and Statistics (NCSCHIS). The NCSCHIS “cleans” the data by assigning births, deaths, and incident disease cases to the county of residence. Collecting data from all 100 counties, cleaning the data and then putting it into a form that can be returned to the counties necessitates a time lag between collection of data and the public release of data. Thus, the 2008 Map Databook presents data collected through the year 2007 for reportable diseases and through 2006 for birth and death certificate data.

### Interpreting and Understanding Maps in this MapBook

**Numbers versus Rates.** Maps in this document typically present health events in terms of either numbers or rates. Numbers signify actual counts of health events such as new cases of disease or deaths due to specific conditions. Rates take into account the size of the population in which health events are measured and are expressed in terms of a constant such as per 1,000 or 100,000 population. The general format of a rate is expressed as,

$$\text{Rate} = \frac{\text{Number of events during a given time period}}{\text{Size of the population in which the health event occurred}} \times 100,000$$

The use of rates allows for meaningful comparisons between populations of different sizes. Where population sub-group sizes are small or annual health events total less than 20 cases, there can be considerable fluctuations from year to year. In order to obtain a more stable estimate of the health indicator, five-year rates are often used. A five-year rate is essentially a five-year average of the annual rates. In some circumstances, the number of health events is so small a rate cannot be expressed or is unstable, so the specific number is used (e.g. number of infant deaths).

**Percentages.** Some maps (particularly maps showing birth data) represent data as percentages—which is a rate per 100 population. The percentages are based upon actual counts of health events (e.g. the number of preterm births) relative to the total population at hand (e.g. total number of live births) in the specific geographic boundary (e.g. census tract). Thus, the percentage corresponds to the health events in the population at hand in each census tract, municipality, or zip code, not the total number of health events throughout the entire county.

**Crude Rates and Age-adjusted Rates.** Unless otherwise specified, rates shown in this Databook are crude, or unadjusted rates, which represent the number of health events divided by the population, and multiplied by a constant (such as 1,000 or 100,000 so that the result is not a fraction).

**What are the types of geographic boundaries used?** Three major geographic boundary types are used in this Databook: census tracts, municipalities, and major zip codes.

**Census tracts** are sets of contiguous census blocks groups, which are in turn comprised of census blocks. Census blocks are the smallest census units and correspond roughly to neighborhoods. Census tracts, census block groups, and census blocks are relatively permanent statistical

subdivisions of a county as designated by the United States Census Bureau. Census tracts usually have between 2,500 and 8,000 persons and tend to be homogeneous with respect to population characteristics, economic status, and living conditions. For this reason, and because census tracts are nested within county boundaries and do not cross county or state boundary lines, census tracts are often superior to the use of zip codes for spatial data analysis and displays. The spatial size of census tracts varies widely depending on the density of settlement. Census tract boundaries are delineated with the intention of being maintained over a long time so that statistical comparisons can be made from census to census. Guilford County has a total of ninety-eight census tracts. (US Census Bureau, Geography Division, 2000).

**Municipalities** are general-purpose districts and can include cities, towns, boroughs, or villages. A municipality is typically governed by a mayor and a city council or municipal council. Guilford County has a total of twelve municipalities. These include Forest Oaks, Gibsonville, Greensboro, High Point, Jamestown, McLeansville, Oak Ridge, Pleasant Garden, Sedalia, Stokesdale, Summerfield, and Whitsett.

**Zip codes** are creations of the US Postal Service and are designed to facilitate the delivery of mail. Since Zip codes are not defined by the United States Census Bureau, little or no census data is collected using this geographic boundary, and they may change from time to time. Zip codes are not unique to specific counties and thus can overlap municipality, county or states boundaries as well as displaying heterogeneity in respect to population characteristics, economic status, and living conditions. For these reasons, zip codes are not usually the geographic unit of choice for sub-county spatial analysis, but may be the best unit available when data have zip codes but no address that would allow for assignment of data to census block groups or census tracts. There are twenty-one major zip codes that have their center in Guilford County, and these have been used for zip code analyses.

**Geocoding.** Before health event data can be displayed on a map, the individual data must have an address, which can then be “geocoded” or matched to an underlying street grid. Due to errors in data entry, it is rare to have 100% of health records geocoded successfully. For data in this MapBook, all maps represent at least a 95% geocoding rate. It is assumed that the remaining un-geocoded data are randomly distributed across geographic areas so that the map displays will be unbiased. The Guilford County Department of Public Health is very careful to protect the confidentiality of individual health data—hence all maps display individual data aggregated at census tracts, zip codes and municipalities and are not shown as points by which a person’s identity might be deduced.

**What about Hispanics?** With the rapid growth of the Hispanic population in Guilford County, requests for health-related data on Hispanics are likewise increasing. It is important to keep in mind that Hispanic status is an ethnic category, not a racial category. Hispanics or Latinos are persons whose country of origin or ancestry includes Mexico, Cuba, the Caribbean, Central America and South America (Not including Brazil). Hispanics can be of any race.