Methodology

This section explains the data sources, statistical methods and limitations of the 2015 Status of Health in DeKalb Report. It also discusses Community Health Assessment Areas, which permit comparisons within the county, and the Healthy People 2020 initiative, which allows the county to gauge its progress toward meeting national health objectives.

DATA SOURCES

Demographic data
The county population estimates were obtained from the U.S. Census Bureau's American Community Survey and the 2014 Georgia County Guide.

Health data
DeKalb Community Service Board
- The DeKalb Community Service Board provided all of the data for the Behavioral Health section.

DeKalb County Board of Health
- Dental Services: The Board of Health's Dental Services provided data on children's oral health for the Oral Health section.
- Environmental Health Division: The Board of Health's Environmental Health Division provided data on West Nile virus for the Infectious Diseases section and permit, inspection, complaint and request for service data for the Environmental Health section.

Georgia Department of Public Health
- Georgia Comprehensive Cancer Registry: The Georgia Comprehensive Cancer Registry collects information on all cancer cases diagnosed among Georgia residents. The registry staff provided cancer data for the Chronic Diseases section.
- HIV/AIDS Epidemiology Section: The HIV/AIDS Epidemiology Section provided HIV/AIDS data for the Infectious Diseases section.
- Online Analytical Statistical Information System (OASIS): OASIS is a set of web-based tools for analyzing Georgia's public health data. Data from OASIS are used throughout the report.
- Refugee Program: The Refugee Program provided all of the data for the Refugee Health section.
- State Electronic Notifiable Disease Surveillance System (SendSS): State law requires that health care providers notify the state's public health system of diagnosed cases of over 50 diseases and conditions. These are known as "notifiable diseases." SendSS is a web-based reporting system that collects information on notifiable diseases in Georgia. Data from SendSS are used in the Infectious Diseases section.
- Tuberculosis Program: The Tuberculosis Program provided all of the tuberculosis data for the Infectious Diseases section.

Risk behavior data

Behavioral Risk Factor Surveillance System Survey
The Behavioral Risk Factor Surveillance System Survey is an annual survey of adults about their health-related behaviors, conditions and use of preventive services. DeKalb County residents were interviewed by telephone. Telephone numbers were randomly dialed and respondents were randomly selected from the adult members of each household. Participation was voluntary and anonymous, and the sample did not include institutionalized individuals, households without telephones and households that use only cellular telephones. The U.S. Centers for Disease Control and Prevention administered the survey, using trained telephone interviewers.

Results were weighted to represent the age, race/ethnicity and gender distributions of adults in DeKalb County. Logistic regression analysis was used to compare age groups and trends over time.

Youth Risk Behavior Survey
The Youth Risk Behavior Survey is a national survey of teens' health-related behaviors. It is conducted every two years. To collect the data presented in this report, a sample of students from all 20 traditional DeKalb County School District high schools completed a written questionnaire. The number of participating classes varied depending on the population size of the school. Classes were randomly chosen from among all second-period classes (excluding English as a Second Language and special education). All students within a selected class were eligible to participate.

Passive consent forms were sent for parents to sign if they did not want their child to participate. All students without a signed form were encouraged to participate. Participation was anonymous and voluntary and data are reported in aggregate form. Trained DeKalb County Board of Health employees administered the survey.

Results were weighted, are representative of all students in DeKalb County School District high schools, and can be compared to state and national data. Logistic regression analysis was used to analyze trends over time.

STATISTICAL METHODS

Percentages
For the most part, disease- and death-related data are analyzed using percentages. A percentage expresses the number of cases per 100. For example, in this report, Figure 1 uses percentages to show the breakdown of racial groups within the DeKalb County population.

Rates
Throughout this report, you will notice figures and tables that show rates, not the actual number of cases. A rate is calculated by dividing the number of people that have a disease or condition by the total number of people in the population and multiplying by 100,000. For example, Figure 4 shows the rates for the top five leading causes of emergency room visits per year.

A morbidity rate is the rate of the occurrence of a particular disease or condition. A mortality rate is the rate of death caused by a particular disease or condition.

Years of Potential Life Lost

Years of Potential Life Lost is used to compare causes of premature death. For this report, a premature death is a death before the age of 75. Years of Potential Life Lost (YPLL) is calculated by subtracting the age at death from 75 years.

Here is an example: Two people die in a motor vehicle crash, one is 27 years old and the other is 73 years old. Years of Potential Life Lost is calculated as follows:
- Since 75 – 27 = 48, the person who died at age 27 lost 48 years of potential life.
- Since 75 – 73 = 2, the person who died at age 73 lost 2 years of potential life.

Since 48 + 2 = 50, these two people together lost a total of 50 years of potential life. This is expressed as 50 Years of Potential Life Lost or 50 YPLL.

For this report, DeKalb County residents who died before the age of 75 during the period of 2008 through 2012 were grouped by their cause of death. Then, each group's Years of Potential Life Lost was calculated. Each total indicates the impact each cause of premature death had on the county's residents.

COMMUNITY HEALTH ASSESSMENT AREAS

DeKalb County was divided into 13 Community Health Assessment Areas (CHAAs) by using the 1995-1996 high school districts as a guide. The areas' boundaries are not identical to the school district lines. Instead, they conform to the census tract boundaries that are the "best fit" to the districts. Although the high school districts have changed since 1995, the original CHAAs have been maintained to provide consistency in reporting and to compare Status of Health in DeKalb reports over time.

The CHAA maps were created using ArcGIS software. The diseases and conditions selected were those that ranked among the top for health disparities. For the report's five-year time period, the average morbidity and mortality rates were calculated per 100,000 persons using the 2010 census tract population estimates.

Community Health Assessment Areas, DeKalb County, GA, 2015
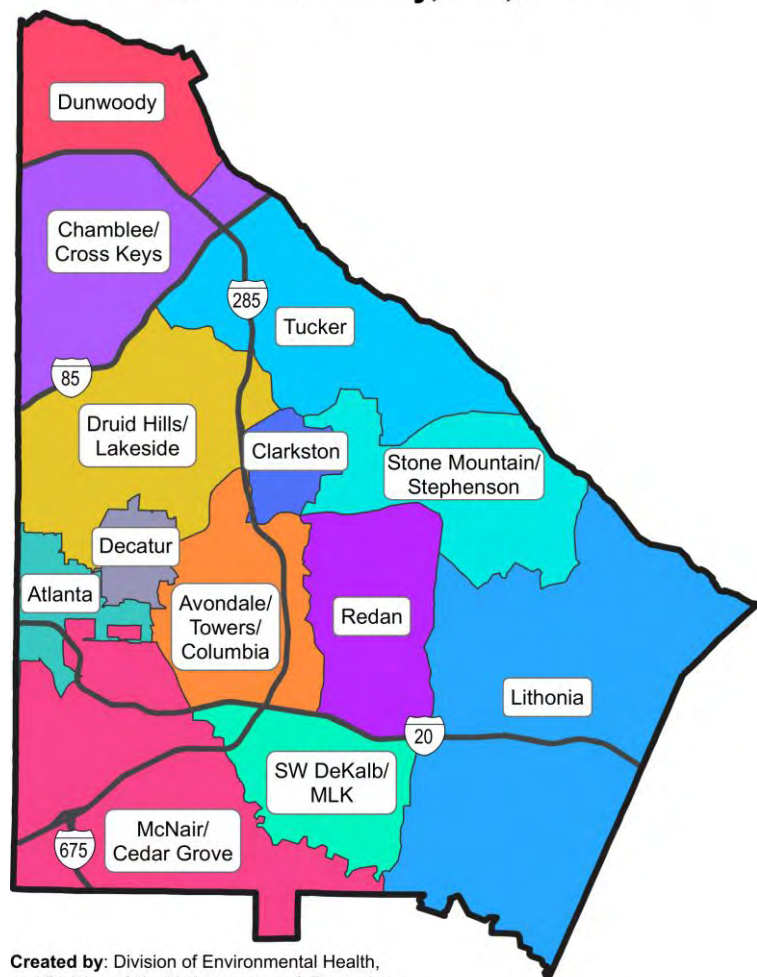
Created by: Division of Environmental Health, and Division of Health Assessment & Promotion, DeKalb County Board of Health (2015)

Throughout the report each CHAA is filled with a shade of color that indicates the value of its morbidity or mortality rate. CHAAs with lower rates have a lighter shade than those with higher rates.

HEALTHY PEOPLE 2020

Healthy People 2020 is a national set of measureable disease prevention and health promotion objectives. In this report, 2012 DeKalb County and Georgia data are compared to the Healthy People 2020 objectives (see Appendix II).

LIMITATIONS

The 2015 Status of Health in DeKalb Report has the following limitations:
- Most of the report uses the racial/ethnic categories of "white," "black," and "other." Since the sizes of the Asian and Hispanic/Latino populations are too small for statistical purposes, these groups are included in the "other" category, unless indicated otherwise.
- The most recent data available are for 2012, with the exception of the 2013 Youth Risk Behavior Survey data. Data about environmental health and oral health are limited to data from services through the DeKalb County Board of Health.
- Behavioral health data are limited to data from the DeKalb Community Service Board.

Also, the following issues about data obtained from the Georgia Department of Public Health's Online Analytical Statistical Information System (OASIS) are reported on the OASIS website:

Maternal and child health data
- Ethnicity data: For birth data for 2008 to present, use caution when looking at rates and numbers by Hispanic/Latino ethnicity. These may be inaccurate due to underreporting of Hispanics/Latinos in the census population denominator, over-reporting on birth certificates or a combination of both.
- Infant mortality rates for 2012: Infant mortality rates use total births in the denominator. In December 2014, Georgia's total number of births for 2012 was updated to reflect an additional 153 births that were reported after final close-out. Therefore, reports created before December 2014 may have different 2012 infant mortality rates.
- Maternal mortality data: The 10th revision of the International Statistical Classification of Diseases and Related Health Problems (known as the ICD-10) led to the National Center for Health Statistics making a change. This change redefined maternal mortality and maternal mortality ratio by excluding maternal deaths between 43 days and one year after delivery. In December 2014, OASIS maternal mortality data for 1999 to 2012 were updated to reflect this change. However, no change in counts was observed for 1999 to 2002. The change primarily affected 2010 to 2012. As a result, reports created before December 2014 that use OASIS's 2003 to 2012 maternal mortality data may have different counts and rates than later reports.
- Race data for 2008 through 2012: For many measures, there were a large number of cases where the race was unknown.

- Due to high percentages (>20 percent) of records having missing, unknown or invalid entries during a calendar year, some measures/indicators are not available to be reported on the OASIS web query tool. The following data are not available:
  o Births with Late or No Prenatal Care and Percent, 2007-2012.
  o Births with <5 Prenatal Care Visits and Percent, 2008–2012.
  o First Pregnancies. Due to high percentages of unknown values in the previous live births/previous termination fields in Fetal Death data, the First Pregnancies measure is slightly underreported in years 2008 through 2012.

Morbidity and mortality data
- Death data for all years: Hispanic/Latino ethnicity is most likely under-reported on death certificates. Studies in several states indicate that there may be under-reporting of Hispanic/Latino ethnicity on death certificates. A cursory review of Georgia data shows a 35 percent decrease from Hispanic/Latino at birth to non-Hispanic/Latino at death, and a 25 percent decrease from Hispanic/Latino mother during delivery to non-Hispanic/Latino mother at death.
- Death data for 2008: Due to collection and processing issues that were beyond the Georgia Department of Public Health's control, there may be some mismatch between cause of death and demographics.
- Hospital discharge data for 2009: If querying all "external causes" or the subcategory "falls" within the external causes category, there is an undercount in these events in the discharge data for 2009 only. This undercount primarily affects residents of Cobb, DeKalb and Fulton counties, and is most pronounced in ages 0 to 19.
- Sexually transmitted disease (STD) data for 2005 to present: With the release of 2013 STD data, processing procedures were changed to include address-matching (geocoding) the data to more validly and reliably represent county of residence. In October 2014, this process was applied to prior years' data back to 2005. (Data prior to 2005 did not contain quality addresses and therefore continue to reflect the stated, non-geocoded county of residence.) As a result, reports created before October 2014 that use OASIS's 2005 to 2012 STD data may have different numbers and rates than later reports.