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INTRODUCTION

The North Central Health District (NCHD), composed of 13 individual counties, is seeking accreditation from the National Public Health Accreditation Board (PHAB). Accreditation will provide health departments the ability to improve quality, access, services, value, and accountability to stakeholders within the community. One of the prerequisites for accreditation includes the completion of a Community Health Assessment.

The Community Health Assessment involves a process of collecting, analyzing, and using data to educate and mobilize communities, develop priorities, garner resources, and plan actions to improve the public’s health. It is one of the core functions of public health, which is why it’s in the accreditation standards. It involves the systematic collection and analysis of data in order to provide the health department and the community it serves with a sound basis for decision-making. It should be conducted in partnership with other organizations in the community and include collecting data on health status, health needs, community assets, resources, and other community or state determinants of health status. A community health assessment links directly to Standard 1.1. The intention here is that, for accreditation purposes, the health department can demonstrate that it systematically assesses its jurisdiction’s health status and can describe it. Most health departments should have access to much of the data needed. Partnerships with hospitals, academic institutions, other governmental agencies (such as schools or police), and non-profit health promotion organizations will help to access additional data needed to assess the health of the community or state. Putting it all together in an organized way to describe the health status or health profile of the community it serves might be a little different way to use the information available.

Our community health assessment is composed of the following three sections:

- **Community Strengths and Themes Assessment** -- provides qualitative information on how communities perceive their health and quality of life concerns as well as their knowledge of community resources and assets.

- **Local Public Health System Assessment** -- measures the capacity and performance of the local public health system by surveying all organizations and entities that contribute to the public’s health.

- **Health Status Report** -- provides quantitative data on a broad array of health indicators, including quality of life, behavioral risk factors, and other measures that reflect a broad definition of health.
COMMUNITY STRENGTHS AND THEMES ASSESSMENT
Introduction
The North Central Health District (NCHD), composed of 13 individual counties, is seeking accreditation from the National Public Health Accreditation Board (PHAB). Accreditation will provide health departments the ability to improve quality, access, services, value, and accountability to stakeholders within the community. One of the prerequisites for accreditation includes the completion of a Community Needs Assessment. A part of this needs assessment includes the Community Strengths and Themes, which were determined by the Mobilizing for Action through Planning and Partnerships (MAPP) strategy. The MAPP strategy consists of six phases:

1. Organize for success and developing partnerships
2. Collaborating a shared community vision
3. Includes Four Assessments:
   a. Community Themes and Strengths Assessment
   b. Local Public Health System Assessment
   c. Community Health Status Assessment
   d. Forces of Change Assessment
4. Identify strategic issues
5. Formulate goals and strategies
6. Action Cycle that links planning, implementation, and evaluation of the community themes.

The “Community Themes and Strengths Assessment,” of phase three in the MAPP process was employed to gain insight upon the quality of life in Houston County, Georgia. This was done through interviewing key informants from each county, whom are individuals within a particular facet of the community that are considered to have a valued opinion in reference to the designated population. Each key informant was presented with a preselected set of questions that will be used amongst all 13 counties within the NCHD. The results of the assessment will provide the NCHD with a comprehensive summary of community perceived views on the current state of health in Houston County, Georgia.

This portion of the Community Needs Assessment was completed through the partnership of Dr. David Harvey, District Director, and Mercer University’s Masters of Public Health Program's students under the supervision of Dr. Jimmie Smith.
Key Informants
There were 10 key informants from Houston County that were interviewed. Key informants were classified as educators, healthcare providers, local government officials, civil service members, federal government employees, and military members. Each interview was recorded at the consent of the participant and later transcribed for review. Once each interview was transcribed, they were analyzed to uncover commonalities and differences among the key informants. Each individual shared his/her views concerning: (1) overall quality of life within the community, (2) healthcare within the community, (3) perceptions upon raising children and retiring within the community, (4) the availability of economic opportunity within the community, (5) safety within the community, (6) availability of support networks, (7) everyone in the community’s ability to participate in its overall quality of life, (8) residents’ ability to affect the community positively, (9) sufficient numbers of health and social services within the community, (10) perceptions related to the trust and respect between community partners to achieve shared community goals, (11) overall sense of civic responsibility and engagement in shared accomplishments, (12) and rating the community’s overall health.

Demographics within the interviews
Individual Interviews: 10 participants, 30% male and 70% female

Quality of Life Questionnaire
Each key informant was asked a set of 12 questions reflecting the quality of life within that county. Responses ranked on a scale of 1 to 5, with 5 being the most positive.

1. Are you satisfied with the quality of life in our community? (Consider your sense of safety, well-being, participation in community life and associations, etc.) [IOM, 1997]

2. Are you satisfied with the healthcare system in the community? (Consider access, cost, availability, quality, options in health care, etc.) [IOM, 1997]

3. Is this community a good place to raise children? (Consider school quality, day care, after school programs, recreation, etc.)

4. Is this community a good place to grow old? (Consider elder-friendly housing, transportation to medical services, churches, shopping; elder day care, social support for the elderly living alone, meals on wheels, etc.)

5. Is there economic opportunity in the community? (Consider locally owned and operated businesses, jobs with career growth, job training/higher education opportunities, affordable housing, reasonable commute, etc.)

6. Is the community a safe place to live? (Consider residents' perceptions of safety in the home, the workplace, schools, playgrounds, parks, the mall. Do neighbors know and trust one another? Do they look out for one another?)

7. Are there networks of support for individuals and families (neighbors, support groups, faith community outreach, agencies, organizations) during times of stress and need?
8. Do all individuals and groups have the opportunity to contribute to and participate in the community's quality of life?

9. Do all residents perceive that they-individually and collectively-can make the community a better place to live?

10. Are community assets broad-based and multi-sectoral?

11. Are levels of mutual trust and respect increasing among community partners as they participate in collaborative activities to achieve shared community goals?

12. Is there an active sense of civic responsibility and engagement, and of civic pride in shared accomplishments?

**Summary of Community Themes and Strengths Assessment**

After reviewing the data collected from key informant interviews, these are the most prevalent strengths and themes discussed in Houston County:

*Community Health* – The majority, if not all of participants find that they are satisfied with the overall health of the community. They all felt that there were many healthcare resources available for them. The perceived overall health status of the community is “somewhat healthy” because the community suffers obesity related chronic disease. Overall the quality and options of healthcare providers are adequate, but there is a common theme of inadequate access to healthcare among those of low socioeconomic status and issues with health insurance providers. In a statement from a key informant,

“Houston County has excellent health care, both civilian and military. Additionally, both civilian and military medical leadership work closely with local specialist and others in Middle Georgia to provide comprehensive care to their beneficiaries. Finally, both the civilian and military medical leaders are focused on excellence. Houston Medical Center is one of three hospitals in Georgia that were recognized in the top 100 hospitals in the nation.”

There is collaboration among Houston Healthcare, Robins 78th Medical, and Mercer University which will lead to increasing the quality of healthcare for the residents of Houston County, and the residents from outlying counties who utilize healthcare services in Warner Robins. Healthcare within Houston County is also growing with the addition of a Residency program that was established in 2012.

*Resources* – The key informants were unanimous in regards to the outreach and services that churches provide the residents in the community, such as elder transportation, daycare, and humanitarian aid during times of need or strife. Though churches typically bear the burden for these services, there is a need for accessible transportation for low income, underserved populations, and elderly population to maneuver throughout the community gain access to the services that they require. For instance one individual stated that she serves a predominately low-income African-American community on Davis Drive, in Warner Robins. All of the industry has moved out towards Highway 96, and the residents
do not have resource’s that are accessible. The residents live within a food desert in which they do not have adequate access to fresh foods. They have access to fast food, convenience stores, and packaging stores. Services that are provided by the health department and Division of Family and Child Services (DFCS) are located of Highway 96, and without transportation residents cannot utilize these services. Supported by the key informant statement, “We used to have flu shots. People came here but there’s a loop hole that has come up that they can’t even bring the health department in to give flu shots to our tenants out here. I find that to be an issue. I’ve called several times, but no one has gotten back with me on that. Again, I’m constantly making phone calls for a lot of people out here to get to the doctor. Some do have the means of Medicare/Medicaid to pay for transpiration, but a lot of them don’t. I try to get as many health care agencies in here…”

Education – In reference to the school system, some of the respondents went to Houston County Public Schools as adolescents, and their children are in the school system now. The statement, “as a school teacher, I can testify to the success of the public school system, and I feel like community organizations cater to the children,” encompasses the feelings that key informants have about the education system in the community. The amount of parent and community involvement, and the level of pride that educators have in the education system in Houston County, aid in the development of resident’s perceptions of the community’s quality of life.

Economic opportunity – There are areas of industry within the community, such as Frito-Lay, Perdue Chicken, automobile dealerships, Houston Healthcare, and Robins Air Force Base. Robins Air Force Base employees a sizable portion of the community, and drives the local businesses and industry. For those that do not participate in the local workforce they find job training at the local universities, technical colleges to obtain the job/career training. Because of the economic stability, and safety Houston County is also a desirable place for military families to retire.

Community safety – The community is also an overall safe place to live. There are insistences of gang activity in particular areas, but not enough to detour residents from contributing to society. “We do have some good communities that we can offer… we’ve cleaned up a lot of our communities, because in the past we had some high crime, however we’ve patrolled it. We’ve got the bad seeds, as we call them, out,” states one key informant. She commented on the incidence of crime in the northern area of the community being reduced due to a higher police presence, and the expansion of the Boy’s and Girl’s Club to Sewell Circle Park.

Growing old – There are elderly communities that provide transportation to and access to care and other resources. Elderly community members who live in these communities lack transportation to utilize services within the community. Which is supported by a key informant stating that, “Years ago people began saying that all the services needed to be halfway between Perry and Warner Robins, so they moved services out to Highway 96. Well if you don’t have transportation, you can’t get out there. So that has been a burden, not only on the seniors who need food stamps and things like that but to younger folks too.”

Civic pride – The majority, if not all the participants, find the education system is a great source of civic pride, and they find the community a great place to raise children. Robins
Air Force Base is also a tremendous source of civic pride. Houston County is able to provide military members and civilian base workers resources to defend our nation's independence.

**Conclusion**

In conclusion, Houston County informants shared several significant themes and strengths. With the growth and expansion the community is experiencing, there needs to be attention paid to the disparities experienced by residents in northern area of the county, in relation to the more affluent residents on the southern area of the county. Crime, lack of access to healthcare, and lack of transportation to utilize the services within the community presents a problem for some residents. Transportation for elderly residents to gain access to healthcare services within the community also presents a problem within the community. Although there are many resources available, the more residents of Houston County are aware of resources, the better the health of the county will be.

Overall, the Community Themes and Strengths Assessment proved to be a beneficial tool in evaluating the needs of a community. Key informant interview results revealed that the most commonly discussed themes and strengths were consistent with actual health statistics. This assessment is an important tool to review when implementing programs in the community because it identifies how several problems and issues are interrelated. This not only helps explain this collected data, but it gives it life. By allowing community representation in the accreditation process, the community is involved. The opinions and concerns of county citizens are documented, and will be used in improving the health in Houston County.
LOCAL PUBLIC HEALTH SYSTEM ASSESSMENT
Purpose and Background
The National Public Health Performance Standards Program (NPHPSP) assessments are a helpful tool in evaluating the current performance against a set of optimal standards. This is a partnership effort to improve the practice of public health and the performance of public health systems. This Local Public Health System Assessment (LPHS) report is intended to help the North Central Health District gain a good understanding of its performance and move on to the next step in strengthening the public system.

The 10 Essential Public Health Services (EPHS) describe the public health activities that all communities should undertake and serve as the framework for NPHPSP instruments. These include:

1) Monitor health status to identify and solve community health problems.
2) Diagnose and investigate health problems and health hazards in the community.
3) Inform, educate, and empower people about health issues.
4) Mobilize community partnerships and action to identify and solve health problems.
5) Develop policies and plans that support individual and community health efforts.
6) Enforce laws and regulations that protect health and ensure safety.
7) Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
8) Assure competent public and personal health care workforce.
9) Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
10) Research for new insights and innovative solutions to health problems.

Methods
The methodology was to stratify NCHD staff in three categories- county nurse managers, district management team members, and randomly selected staff members from each program, and ask them to indicate if they participated in any activity listed in the survey instrument. If so, they were asked to indicate if they had any documentation or artifacts that support their statement. The data was then summarized in to one table.

The survey results include percentage ratings for each of the full standards, based on if the individual indicators within each standard were met. These indicators represent the individual objectives that when joined together, comprise the total standard. The score for each standard category was based on the percentage of separate indicators met within the standard.

The rating system for the standards was as follows:
- **No Activity** - 0% or absolutely no activity
- **Minimal Activity** - 1% to 25% activity
- **Moderate Activity** - 26% to 50% activity
- **Significant Activity** - 51% to 75% activity
- **Optimal Activity** - 76% to 100% activity
Results
This table provides a quick overview of the NCHD's performance in each of the 10 EPHS. Each score is determined by the percentage of how many individual objectives for each EPHS were fulfilled. These scores range from a minimum of 0 to a maximum of 100.

The overall performance score for all 10 Essential Public Health Services:

<table>
<thead>
<tr>
<th>EPHS</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Monitor Health Status to Identify Community Health Problems</td>
<td>100</td>
</tr>
<tr>
<td>2 Diagnose and Investigate Health Problems and Health Hazards</td>
<td>92</td>
</tr>
<tr>
<td>3 Inform, Educate, and Empower People about Health Issues</td>
<td>70</td>
</tr>
<tr>
<td>4 Mobilize Community Partnerships to Identify and Solve Health Problems</td>
<td>71</td>
</tr>
<tr>
<td>5 Develop Policies and Plans that Support Individual and Community Health Efforts</td>
<td>45</td>
</tr>
<tr>
<td>6 Enforce Laws and Regulations that Protect Health and Ensure Safety</td>
<td>50</td>
</tr>
<tr>
<td>7 Link People to Needed Personal Health Services and Assure the Provision of Health Care when Otherwise Unavailable</td>
<td>86</td>
</tr>
<tr>
<td>8 Assure a Competent Public and Personal Health Care Workforce</td>
<td>56</td>
</tr>
<tr>
<td>9 Evaluate Effectiveness, Accessibility, and Quality of Personal and Population-Based Health Services</td>
<td>46</td>
</tr>
<tr>
<td>10 Research for New Insights and Innovative Solutions to Health Problems</td>
<td>54</td>
</tr>
<tr>
<td>Overall Performance Score</td>
<td>67</td>
</tr>
</tbody>
</table>

Conclusion
While the district-wide public health system's overall rating for the 10 EPHS was categorized at "Significant Activity," it is important to note that this is a perceptual survey and that Essential Public Health Services Standards that were positively rated as a whole do not necessarily reflect a lack of need for improvement.

Action Plan
Moving forward, the next steps for improvement of NCHD's local public health system include forming a team, including public health employees and partners, to look at each EPHS individually to assess for improvements. This focus will be reflected in the NCHD's Quality Improvement Plan.

Completed: October 16, 2013
NORTH CENTRAL HEALTH DISTRICT OVERVIEW

The North Central Health District (NCHD) is composed of 13 counties located in Middle Georgia. These counties are Baldwin, Bibb, Crawford, Hancock, Houston, Jasper, Jones, Monroe, Peach, Putnam, Twiggs, Washington, and Wilkinson Counties. According to the United States Census Bureau it accounts for approximately 520,905 people. The goal of the NCHD is optimal health for all Georgians and also strives to prevent diseases, promote health and protect communities against health threat. The success of NCHD is directly correlated to ideal participation and collaboration from the representative counties.

HOUSTON COUNTY OVERVIEW

History and Geography

Houston County (pronounced House-ton), the 51st county formed in Georgia, was created in 1821, covering 379.8 square miles. The county was named for John Houston, a member of the Continental Congress and Governor of Georgia from 1778 to 1784. The county seat is in Perry, other incorporated cities include Centerville and Warner Robins. Houston County is also home to the Robins Air Force Base, the base is the center of Warner Robins Air Material Area, built in 1941. It covers 6,400 acres and is Georgia’s largest single employer, providing an important economic boost to central Georgia. Warner Robins is also home to the Museum of Aviation, which is one of the top Air Museums in the country. The Georgia National Fair is held at the Georgia National Fairgrounds and Agricenter in Perry.

Figure 1: Map of Houston County
General Population Characteristics

- The NCHD is home to 520,905 individuals.
- Houston County represents 27% of the population within NCHD, and has 371.2 people per square mile of land area.
- Between 2000 and 2010 the population in Houston County grew by 26%.
- The majority of the population is within the working age group of 18-64 years of age and White and Black/African American are the most prevalent races.

Household Characteristics

- The number of households has increased by 30% since 2000 in Houston County, which is mostly seen in nonfamily and single parent households.

<table>
<thead>
<tr>
<th>Table 1: General Population Characteristics.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographic Characteristics of Houston County Residents</strong></td>
</tr>
<tr>
<td><strong>General Characteristics</strong></td>
</tr>
<tr>
<td>Total Population</td>
</tr>
<tr>
<td>Median age (years)</td>
</tr>
<tr>
<td>% Under 18 years</td>
</tr>
<tr>
<td>% 18-64 years</td>
</tr>
<tr>
<td>% ≥ 65 years</td>
</tr>
<tr>
<td>% Male</td>
</tr>
<tr>
<td>%Female</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
</tr>
<tr>
<td>% American Indian/Alaska Native</td>
</tr>
<tr>
<td>% Asian</td>
</tr>
<tr>
<td>% Black/African American</td>
</tr>
<tr>
<td>% Native Hawaiian/Other Pacific Islander</td>
</tr>
<tr>
<td>%White</td>
</tr>
<tr>
<td>% Other Races</td>
</tr>
<tr>
<td>% Two or More Races</td>
</tr>
<tr>
<td>% Hispanic/Latino (of any race)</td>
</tr>
<tr>
<td><strong>Household Characteristics</strong></td>
</tr>
<tr>
<td>Average Household Size</td>
</tr>
<tr>
<td>Average Family Size</td>
</tr>
<tr>
<td>Total Households</td>
</tr>
<tr>
<td>Family Households</td>
</tr>
<tr>
<td>Nonfamily Households</td>
</tr>
<tr>
<td>Family Households with Children (&lt;18 years old)</td>
</tr>
<tr>
<td>Married Couple Households with Children</td>
</tr>
<tr>
<td>Female Householder with Children</td>
</tr>
<tr>
<td>Male Householder with Children</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau
Employment

- Houston County has four major industries that include Agriculture, Education, Public Administration, and Retail.
- The unemployment rate in Houston County has consistently stayed below the state unemployment rate.
- The median household income is higher than the state average and the number of children in poverty is at a lower percentage in Houston County.

<table>
<thead>
<tr>
<th>Economic Indicators</th>
<th>Houston</th>
<th>Georgia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment Rate, 2012</td>
<td>7.6</td>
<td>9.0</td>
</tr>
<tr>
<td>Median Household Income, 2010</td>
<td>$54,977</td>
<td>$46,252</td>
</tr>
<tr>
<td>% Population Employed 16 years and over</td>
<td>43%</td>
<td>44%</td>
</tr>
<tr>
<td>Children in poverty</td>
<td>21%</td>
<td>25%</td>
</tr>
<tr>
<td>% of Households with food Stamp/SNAP benefits in the past 12 months</td>
<td>10%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau

Figure 2: Changes in the Unemployment Rate.

Source: Bureau of Labor and Statistics
Education

- Table 3 details the number of elementary, middle, and high schools located in the county, school enrollment, free/reduced lunch, graduation rates, HOPE qualifications for the 2009-2010 school year, and educational attainment for adults (age 25 and over).

- Houston County has a total of 36 public schools with a total enrollment of 26,063 kids and had a lower proportion of students in the school system who qualify for free/reduced lunch (50%) compared to the state (56%).

- Of those adults 25 and over in Houston County, only 33% have a college degree where as 42% only have up to a high school diploma.

### Table 3: Education Information

<table>
<thead>
<tr>
<th>Houston County Education Information, 2010/2011 School Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Number of Schools</strong></td>
</tr>
<tr>
<td>Elementary</td>
</tr>
<tr>
<td>Middle</td>
</tr>
<tr>
<td>High</td>
</tr>
<tr>
<td><strong>Total Enrollment</strong></td>
</tr>
<tr>
<td><strong>% Students Qualifying for Free/Reduced Lunch</strong></td>
</tr>
<tr>
<td><strong>2011 Graduation Rate</strong></td>
</tr>
<tr>
<td><strong>% 2010 Graduates Eligible for HOPE</strong></td>
</tr>
<tr>
<td><strong>% Illiterate</strong></td>
</tr>
<tr>
<td>Less than 9th grade</td>
</tr>
<tr>
<td>9th to 12th grade, no diploma</td>
</tr>
<tr>
<td>High school graduate (includes equivalency)</td>
</tr>
<tr>
<td>Some college, no degree</td>
</tr>
<tr>
<td>Associate's degree</td>
</tr>
<tr>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Graduate or professional degree</td>
</tr>
</tbody>
</table>

**Educational Attainment**

*U.S. Census Bureau
#U.S. Dept of Ed
All other data: GA Dept of Ed

For the 2010-2011 school year, a cohort graduation rate was used. To see a description of how this was calculated go to [http://gaosa.org/reportinfo.aspx#indicators](http://gaosa.org/reportinfo.aspx#indicators).
HEALTH CARE ACCESS

Health care access requires financial coverage and access to providers. Lack of health insurance has a profound negative effect on access to health care. Those without insurance are less likely to have regular medical care and are more likely to go without care.

- 17% of the Houston County population was uninsured in 2010.
  - 8.2% under 18, 22.4% 18 and over
- 18% of adults in the North Central Health District reported being in fair or poor health.

Residents must have access to healthcare facilities and providers and the amount of those in a community is an indicator of the adequacy of health services available.

Table 4: Health Care Resources in Houston County

<table>
<thead>
<tr>
<th>Health Resources</th>
<th>Number of Physicians/100,000 population</th>
<th>Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>117.9</td>
<td>Total number of hospitals</td>
</tr>
<tr>
<td>Primary Care</td>
<td>51.5</td>
<td>Number of Beds, Total</td>
</tr>
<tr>
<td>Obstetricians/Gynecologists</td>
<td>7.9</td>
<td>Ambulatory Surgical Centers</td>
</tr>
<tr>
<td>Specialists</td>
<td>66.5</td>
<td>Community Mental Health Centers</td>
</tr>
<tr>
<td>Psychiatrists</td>
<td>7.1</td>
<td>Federally-Qualified Health Centers</td>
</tr>
<tr>
<td>Dentists</td>
<td>48.6</td>
<td></td>
</tr>
</tbody>
</table>

Source: U.S. Department of Health and Human Services
LEADING CAUSES

Leading Cause of Mortality

- **Heart disease and Cancer are the leading causes of death** in Houston County.
- From 2007-2011, there were a total of 4,825 deaths in Houston County, averaging 965 deaths per year.
- During that same period, the overall mortality rate of the White population was 859.8 per 100,000 population and the overall mortality rate of the Black population was 913.2 per 100,000 population.

### Table 5: Leading Causes of Mortality

<table>
<thead>
<tr>
<th>Cause of Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular Diseases</td>
</tr>
<tr>
<td>Cancers</td>
</tr>
<tr>
<td>Respiratory Diseases</td>
</tr>
<tr>
<td>External Causes</td>
</tr>
<tr>
<td>Mental Health and Behavioral Disorders</td>
</tr>
<tr>
<td>Nervous System Diseases</td>
</tr>
<tr>
<td>Reproductive and Urinary System Diseases</td>
</tr>
<tr>
<td>Endocrine/Nutritional/Metabolic Diseases</td>
</tr>
<tr>
<td>Infectious and Parasitic Diseases</td>
</tr>
<tr>
<td>Digestive System Diseases</td>
</tr>
</tbody>
</table>

Source: OASIS

**Figure 3: Leading Causes of Mortality by Race/Ethnicity**

![Leading Causes of Mortality by Race/Ethnicity](image)

Source: OASIS

Other Race=Asian, American Indian or Alaska Native, Native Hawaiian or Pacific Islander, or Multiracial
Leading Causes of Premature Deaths

- The top 5 leading causes of premature death in Houston County are External Causes, Cardiovascular Disease, Cancers, Fetal and Infant Conditions, and Respiratory Diseases.
- Premature death is measured by the number of Years of Potential Life Lost (YPLL) due to a death occurring before the age of 75. The YPLL rate is calculated by taking the total years of life lost and dividing by the population younger than 75.

Figure 4: Leading Causes of Premature Death

Source: OASIS

Leading Cause of Hospitalizations

- In Houston County, the leading causes of hospitalization were cardiovascular disease, pregnancy and child birthing complications, and respiratory diseases.

Table 6: Leading Causes of Hospitalizations

<table>
<thead>
<tr>
<th>Cause of Hospitalization</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular Diseases</td>
<td></td>
</tr>
<tr>
<td>Pregnancy and Childbirthing Complications</td>
<td></td>
</tr>
<tr>
<td>Respiratory Diseases</td>
<td></td>
</tr>
<tr>
<td>Digestive System Diseases</td>
<td></td>
</tr>
<tr>
<td>Bone and Muscle Diseases</td>
<td></td>
</tr>
<tr>
<td>Reproductive and Urinary System Diseases</td>
<td></td>
</tr>
<tr>
<td>External Causes</td>
<td></td>
</tr>
<tr>
<td>Mental Health and Behavioral Disorders</td>
<td></td>
</tr>
<tr>
<td>Infectious and Parasitic Diseases</td>
<td></td>
</tr>
<tr>
<td>Endocrine/Nutritional/Metabolic Diseases</td>
<td></td>
</tr>
<tr>
<td>Cancers</td>
<td></td>
</tr>
<tr>
<td>Cardiovascular/Diseases</td>
<td></td>
</tr>
<tr>
<td>External Causes</td>
<td></td>
</tr>
</tbody>
</table>

Source: OASIS
CHRONIC DISEASE

According to the Centers for Disease Control and Prevention (CDC), chronic diseases (such as cardiovascular disease, cancer, diabetes, and asthma) are “the most common, costly, and preventable of all health problems” in the country. Most chronic diseases are caused by modifiable behaviors, and are commonly referred to as risk behaviors. The four most common risk behaviors are lack of physical activity, poor nutrition, tobacco use, and excessive alcohol consumption.

Cardiovascular Disease
Cardiovascular disease (CVD) is the leading cause of death, hospitalization, and years of potential life lost in the district and it is the leading cause of disability in the U.S. The cost of CVD in the U.S. is estimated at $444 billion, and treatment accounts for $1 for every $6 spent on health care. CVD includes all diseases of the heart and blood vessels; such as obstructive heart disease, stroke, high blood pressure, hypertension, atherosclerosis, and aortic aneurysms. Risk factors of CVD include high cholesterol, high blood pressure, diabetes, and behavior and lifestyle choices such as tobacco use, diet, physical activity, obesity, and alcohol. Family history of CVD can also make an individual more susceptible.

Figure 5: CVD Mortality Rate

- The 2007-2011 overall mortality rate for Obstructive Heart Disease, which includes heart attacks, is the leading cause of heart disease in Houston County (73.3 per 100,000 population), Georgia (77.4), and the NCHD (113.5).
The mortality rate for CVD in Houston County is **highest among the white population** from 2007-2011 at 258.3 per 100,000 population. The black mortality rate for CVD during this time was 160.7 per 100,000, other races were 33.6, and Hispanics was 24.6.

**Figure 6: CVD Mortality Rate by Race and Type**

When comparing genders, **males have slightly higher mortality rates** than females. However, in Houston County, more females die of strokes and high blood pressure than males.

**Figure 7: CVD Mortality Rate by Gender and Type**

Source: OASIS
Cancer
Cancer is a disease in which cells divide abnormally without control and can invade adjacent tissues. The cells can also metastasize and spread to other parts of the body through the blood and lymphatic system. Nearly 2/3 of cancer deaths are associated with behavioral factors such as tobacco use, diet, obesity, and lack of physical activity.

- Cancer is a leading cause of death in the U.S., Georgia and in Houston County.
- The mortality rate due to cancer has steadily decreased in Georgia since 2007 but has increased in Houston County since 2008.

- Lung cancer is the leading cause of cancer mortality for both men and women in Houston County and Georgia.
- The 2nd leading cause of cancer mortality is prostate cancer for men and breast cancer for women.

Figure 8: Cancer Mortality Rates.

![Cancer Mortality Rates](image)

Source: OASIS

Table 7: Mortality Rates due to Leading Causes of Cancer by Gender.

| Age Adjusted Mortality Rates per 100,000 population due to Leading Causes of Cancer by Gender, 2007-2011 |
|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|
| Males                                            | Houston | Georgia | Females                                          | Houston | Georgia |
| Lung Cancer                                     | 72.7    | 68.9    | Lung Cancer                                     | 44.2    | 37.7    |
| Prostate Cancer                                 | 24.5    | 25.5    | Breast                                           | 20.9    | 23      |
| Colon Cancer                                    | 18.4    | 19.6    | Colon Cancer                                    | 13      | 13.6    |
| Pancreatic Cancer                               | 13.4    | 12.1    | Pancreatic Cancer                               | 10.2    | 9       |
| Leukemia                                        | 11      | 9       | Leukemia                                        | 4.7     | 4.9     |

Source: OASIS
Table 8: Leading Causes of Cancer Incidence by Gender and Race

| Leading Causes of Cancer Incidence by Gender and Race, Houston County, 2004-2008 |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| White Male | Incidence Rate | Black Male | Incidence Rate | White Female | Incidence Rate | Black Female | Incidence Rate |
| Lung | 108.74 | Prostate | 171.23 | Breast | 140.96 | Breast | 151.34 |
| Prostate | 107.92 | Lung | 108.9 | Lung | 62.89 | Colon/Rectal | 49.05 |
| Colon/Rectal | 72.63 | Colon/Rectal | 69.13 | Colon/Rectal | 39.05 | Lung | 41.53 |
| Melanoma | 40.22 | Leukemia | 33.64 | Melanoma | 23.54 | Corpus Uteri | 17.94 |
| Bladder | 39.91 | Myeloma | 24.11 | Thyroid | 18.17 | Stomach | 15.9 |

Source: Georgia Comprehensive Cancer Registry
Incidence Rate=new cases per 100,000 population

- The leading causes of new cancer cases in Houston County among males were prostate and lung cancer and in females breast cancer.
- The incidence rate for lung cancer among white and black males and in white females in Houston County is higher than the U.S. rate for white males (79.9 per 100,000), black males (95.1), and white females (50.3).
- The incidence rate of prostate cancer in black males was much higher than the rate in white males.
- The incidence rate of breast cancer in white females was lower than the rate in black females.

Table 9: Routine Preventative Cancer Screenings

<table>
<thead>
<tr>
<th>Percent of Adult Residents Reporting Routine Preventative Cancer Screenings, 2006-2010</th>
<th>North Central Health District (Macon)</th>
<th>Georgia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence of Mammography in the Last 2 Years among Women</td>
<td>81%</td>
<td>77.7%</td>
</tr>
<tr>
<td>Prevalence of Pap Testing in the Last 3 Years among Women, AGE 18 +</td>
<td>89.4%</td>
<td>86.9%</td>
</tr>
<tr>
<td>Prevalence of ever having had a Sigmoidoscopy or Colonoscopy among Adults, age 50+</td>
<td>62.5%</td>
<td>63%</td>
</tr>
<tr>
<td>Prevalence of Adult Men, 40+ years old, who had a Prostate Cancer Screening in the Last Two Years</td>
<td>67.7%</td>
<td>59.1%</td>
</tr>
</tbody>
</table>

Source: OASIS

- The North Central Health District has a larger percentage of residents receiving routine cancer screenings including: mammography, pap smears and prostate screenings compared to Georgia. However, the percentage of residents reporting sigmoidoscopy or colonoscopy is slightly lower than the state.
Asthma

Asthma is a chronic respiratory disease that affects the lungs. It causes recurring incidents of wheezing, breathlessness, chest tightness, and nighttime or early morning coughing. Asthma can be controlled by medication and by staying away from environmental triggers that can cause an attack. Common asthma triggers include tobacco smoke, dust mites, pollution, cockroaches, pets, and mold.

Figure 9: Emergency Department Visits by Age Group

From 2006-2010 in Houston County, Asthma accounted for 2,802 (1.1%) of emergency department visits and had a hospital discharge rate of 119.4 per 100,000.

From 2006-2010 in Houston County, children ages 1-12 were most affected by asthma symptoms that led to an emergency department visit.

The emergency department visit rates in Houston County due to asthma were much higher for blacks (831.1 per 100,000 population) and other races (411.4) compared to whites (241.7).

In the North Central Health District 8.1% of adults have been told they currently have asthma compared to the state of Georgia at 7.7%.
Diabetes

Diabetes mellitus is a disease characterized by high blood sugar levels. It is the result of the body’s inability to produce and/or use insulin made by the pancreas. It can cause serious health complications including heart disease, blindness, kidney failure, and lower extremity amputations. Risk factors which contribute to the development of adult onset diabetes (type 2) include older age, obesity, genetics, history of pregnancy related diabetes, impaired glucose tolerance, physical inactivity, and race/ethnicity.

Figure 10: Age Adjusted Mortality Rate for Diabetes

- In Houston County:
  - The black mortality rate from 2007-2011 due to diabetes (26.8) was higher than the white mortality rate (17.9).
  - The age adjusted emergency department visit rate for diabetes from 2006-2010 was 211.7 per 100,000.
    - Black: 431
    - Other: 259.7
    - White: 151.4
- In the North Central Health District 11.4% of adults have been told they are diabetic compared to the state of Georgia at 9.5%.

Source: OASIS
Alcohol Use

Over time, excessive alcohol use can lead to the development of chronic diseases, neurological impairments and social problems. These include but are not limited to—

- Cirrhosis of the liver
- Pancreatitis
- Gastritis
- Cancer of the moth, throat, esophagus, liver, colon, and breast
- High Blood Pressure
- Psychiatric problems
- Cardiovascular diseases, such as hypertension and myocardial infarction (heart attack)
- Neurological problems, such as dementia and stroke
- Unintentional Injuries
- Poor birth outcomes

In the North Central Health District **11.7% of adults report binge drinking** (defined as 5+ drinks/day for men and 4+ drinks/day for women) compared to the state of Georgia at 12.5%.

Alcoholic liver disease (cirrhosis) is caused by damage to the liver and its function due to alcohol abuse. It can cause health complications such as bleeding disorders, fluid in the abdomen, portal hypertension, hepatic encephalopathy, kidney failure and liver cancer. The mortality rate from alcoholic liver disease in Houston is higher than the district but remains lower than what is seen across the state of Georgia.

**Figure 11: Mortality Rate due to Alcoholic Liver Disease**

Source: OASIS
Smoking

Smoking harms nearly every organ of the body and is the cause of many diseases. These include but are not limited to—

- Coronary heart disease
- Stroke
- Lung disease, such as lung cancer, emphysema, bronchitis and chronic airway obstruction
- Cancers such as acute myeloid leukemia, bladder, cervix, esophagus, kidney, larynx, lung, oral, pancreatic, pharynx, stomach, and uterus
- Abdominal aortic aneurysm
- Reproductive and early childhood problems (infertility, preterm birth, stillbirth, low birth weight, and Sudden Infant Death Syndrome (SIDS))

The adverse health effects from cigarette smoking account for an estimated 443,000 deaths, or nearly one of every five deaths, each year in the United States. In the North Central Health District 22.9% of adults report being a current smoker compared to the state of Georgia at 18.8%.

Overweight/Obesity

Overweight and obesity are terms used to describe weight that is above what is considered healthy. For adults, the terms are dependent on an individual’s body mass index. Overweight is defined as a BMI of 25-29.9 and obesity is defined as a BMI of 30 or higher. Obesity and being overweight are associated with an increased risk of certain disease and health problems, including —

- Coronary heart disease
- Type 2 diabetes
- Cancers
- High blood pressure
- High Cholesterol
- Stroke
- Liver and gallbladder disease
- Sleep apnea and respiratory problems
- Osteoarthritis
- Gynecological problems

There are a variety of factors that contribute to being overweight or obese; these include caloric intake, environment, activity levels, genetics, and medication.

In Houston County

- 29% of Adults report being obese.
- 26% of Adults report no leisure time physical activity.
- 9% of the population are low-income and do not live close to a grocery store.
- 57% of the restaurants are fast-food establishments.
- There are 7 recreational facilities per 100,000 population.
- 9% of the population lives within half a mile of a park.

Source: County Health Rankings
INFECTIONOUS DISEASE

The Georgia Department of Public Health, under the legal authority of OCGA 31-12-2 has designated certain diseases and conditions notifiable. The purpose of reportable disease surveillance is to:

- identify in a timely way any diseases or conditions that may require immediate public health intervention and follow up;
- detect changing trends or patterns in disease occurrence;
- identify areas or communities that require special public health response as a result of changes in disease patterns; and
- assess and evaluate control and prevention interventions.

In Georgia, public health surveillance is conducted on more than 50 diseases and conditions. The data are collected by local and state health agencies who are responsible for analyzing, interpreting and disseminating the information to "those who need to know" for administrative, program planning, and decision making purposes.

Sexually Transmitted Diseases (STD)

Chlamydia

A common STD, Chlamydia is known as a silent disease because about $\frac{3}{4}$ of infected women and about $\frac{1}{2}$ of infected men have no symptoms. If symptoms do occur, they usually appear within 1 to 3 weeks after exposure. If untreated, Chlamydia infections can progress to serious reproductive and other health problems with both short term and long term consequences.

- According to 2011 data, the state of Georgia ranks 7th highest in the U.S. for rates of Chlamydia.
- From 2007-2011, Houston County ranked 19th highest out of 159 counties for the number of Chlamydia cases and 89th highest for the rate (cases per 100,000)

![Figure 12: Chlamydia Rate](source.png)
• The highest rates of Chlamydia in Houston County are among 18-24 year olds.

• In Houston County, of the known Chlamydia cases where race was identified, the rate among the black population of 540.7 per 100,000 was significantly higher than the white (73.4), Other (48.8) and Hispanic (167.1) populations.

Gonorrhea
Gonorrhea is an STD that when left untreated causes serious and permanent health problems. In women, gonorrhea causes pelvic inflammatory disease. In men, gonorrhea causes a painful condition of the ducts attached to the testicles that may lead to infertility if left untreated (epididymitis). Since 2007 there has been an increase in drug resistant gonorrhea that has led to changes in national treatment guidelines.

• According to 2011 data, the state of Georgia ranks 6th highest in the U.S. for rates of Gonorrhea.

• From 2007-2011, Houston County ranked 15th highest out of 159 counties for the number of Gonorrhea cases and 79th highest for the rate (cases per 100,000)
• The highest rates of Gonorrhea in Houston County are among 18-24 year olds.

• In Houston County, of the known Gonorrhea cases where race was identified, the rate among the Black population of 761.7 per 100,000 and the Hispanic population (201.5) was significantly higher than the White (94) and Other (58) and populations.

Syphilis
Syphilis is an STD referred to as “the great imitator” because many of its signs and symptoms are similar to other diseases. Initially it is characterized by appearance of one or more sores called chancres. Without treatment, the infected person will continue to have syphilis even though signs and symptoms may not be present. In the late stages, the disease may damage internal organs and lead to death.

• According to 2011 data, the state of Georgia ranks 3rd highest in the U.S. for rates of Primary and Secondary Syphilis.

• From 2007-2011, Houston County ranked 20th highest out of 159 counties for the number of Syphilis cases and 58th highest for the rate (cases per 100,000)
The highest rates of Syphilis in Houston County are among 20-24 year olds. In Houston County, of the known Syphilis cases where race was identified, the rate among the Black population of 17.7 per 100,000 was significantly higher than in the White (2.8) population.

**Human Immunodeficiency Virus (HIV)**

HIV can lead to acquired immunodeficiency syndrome (AIDS) and unlike some other viruses, the human body cannot get rid of HIV. That means that once you have HIV, you have it for life. It is transmitted by contact with infected body fluids: blood, semen, vaginal fluids, and breast milk. The most common methods of transmission are sexual intercourse or sharing needles. No safe and effective cure currently exists, but work is being done to find one. Meanwhile, with proper medical care, HIV can be controlled.
According to the High School Youth Risk Behavior Survey in 2011 (covering grades 9-12), only 12.4% of students report that they were never taught in school about AIDS or HIV infection.

- Methods of transmission that are considered high risk are blood recipients, male-to-male sexual contact, and heterosexual contact.
- From 2006-2010, only 47% of adults in the NCHD reported ever being tested for HIV, which was a 12% decrease from 2000-2004 (55%).

HIV/AIDS DATA
- Includes new diagnosis of HIV infection regardless of stage of disease at diagnosis
- Case counts include incarcerated persons and may artificially inflate the numbers

Source: Georgia Department of Public Health, HIV/AIDS Epidemiology Section
Tuberculosis

Tuberculosis (TB) is a bacterial disease caused by Mycobacterium tuberculosis. The most common site of disease is the lung (pulmonary TB), but other organs may be involved. Pulmonary TB causes the following symptoms: coughing that lasts longer than 2 weeks, pain in the chest when breathing or coughing, and coughing up sputum or blood. A person can either have latent TB infection (LTBI) or active TB infection. LTBI is an infection with the bacteria that are alive but inactive in the body, there are no symptoms, and individuals cannot spread TB to others; however, they may develop active TB later in life if they do not receive treatment. Persons at higher risk for TB are individuals who are foreign born, HIV infected, refugee or immigrant, and those living in close quarters (congregate setting).

Figure 21: Tuberculosis Cases

In Houston County from 2007-2011,
- TB occurred predominantly among men (52%) compared to women (48%).
- The highest number and proportion of TB cases by age group for both sexes occurred among persons in the 50 to 59 age group, followed by the 40 to 49 age group.
- There were 10 cases of TB in children (0-19).
- 47% of TB Cases occurred in foreign born persons. The most frequent country of origin of foreign born TB cases in Houston County are:
  - Philippines 67%
  - Mexico 9%
  - Guatemala 9%
  - India 6%

Source: SENDSS
Vaccine Preventable Illness

Prevention of diseases is the foundation of public health. Vaccine preventable diseases, such as polio, measles, diphtheria, Pertussis, rubella, mumps, tetanus, and Haemophilus influenza type b (Hib), are costly and result in missed time from work, doctor’s visits, hospitalizations, and possibly death. Through vaccination, children develop immunity without suffering from the actual diseases that vaccines prevent.

- From 2007-2011, there were no cases of measles, rubella, polio, or diphtheria in Houston County.

Table 10: Vaccine-Preventable Diseases in Houston County

<table>
<thead>
<tr>
<th>Vaccine Preventable Diseases (Cases), Houston County, 2007-2011</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haemophilus influenzae (invasive)</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Mumps</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Neisseria Meningitidis</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Pertussis</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Streptococcus pneumoniae</td>
<td>17</td>
<td>20</td>
<td>29</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Tetanus</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: SENDSS

- Vaccinations to prevent serious diseases are available at the Houston County Health Department, (478)218-2000.
- In 2011, the Houston County Health Department gave 13,527 vaccinations.

Table 11: Number of Vaccinations Given in the Health Department

<table>
<thead>
<tr>
<th>Number of Vaccines Given, Houston County, 2011</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DTP/aP</td>
<td>425</td>
</tr>
<tr>
<td>Hep A</td>
<td>1218</td>
</tr>
<tr>
<td>Hep B</td>
<td>1008</td>
</tr>
<tr>
<td>Hib</td>
<td>307</td>
</tr>
<tr>
<td>Influenza</td>
<td>6098</td>
</tr>
<tr>
<td>Measels, Mumps, Rubella (MMR)</td>
<td>566</td>
</tr>
<tr>
<td>Meningo (Meningitis)</td>
<td>295</td>
</tr>
<tr>
<td>Polio</td>
<td>477</td>
</tr>
<tr>
<td>Tetanus (Td)</td>
<td>1206</td>
</tr>
<tr>
<td>Tdap</td>
<td>1139</td>
</tr>
<tr>
<td>Varicella (Chicken Pox)</td>
<td>788</td>
</tr>
</tbody>
</table>

Source: GRITS
**Influenza**
Seasonal Influenza (flu) is a contagious respiratory illness caused by influenza viruses. It can cause mild to severe illness that can lead to hospitalization and death. Individuals that are considered to be at a higher risk for serious complications include: elderly individuals, young children, and people with other underlying health conditions. It is important to get a flu vaccination every year because the viruses included in the vaccination change.

- **6,098 Influenza (flu) shots** were given in the Houston County Health Department in 2011.
- There were **no deaths** due strictly to influenza in Houston County in 2011.
- From **2006-2010**, there were **96 hospitalizations** attributed to influenza in Houston County.

**Pneumonia**
Pneumonia is an infection of the lungs that can cause mild to severe illness in people of all ages and is caused by bacteria or viruses. Globally, pneumonia causes more deaths than any other infectious disease. There are vaccines available that prevent pneumonia.

- From **2006-2010**, there were **2,736 hospitalizations** attributed to pneumonia in Houston County.

![Figure 22: Hospitalizations due to Pneumonia.](image-url)
Gastrointestinal Disease

Intestinal diseases are infections that are commonly transmitted through consuming contaminated food, but can also be spread through contact with water, animals, and other environmental sources. In order for a person to be tested for an intestinal disease, their doctor must collect stool samples and send it to a laboratory for testing. Since everyone doesn’t go to the doctor when they are ill and/or does not have testing done; thus many cases of intestinal disease are not reported.

![Gastrointestinal Diseases (Cases) in Houston County](image)

- **In 2008, there was an increase** in Shigella cases in Houston County. This is attributed to the cyclical pattern of shigella.
- Salmonella has consistently increased since 2008 and has had the **largest** number of cases from 2009-2011.
- Cryptosporidium steadily **increased** from 2009-2010.

Source: SENDSS
**Invasive Bacterial Disease (Non-Vaccine Preventable)**

Invasive bacterial diseases can occur when a bacteria enters the body and causes an infection in a particular area. Streptococcal Disease Group A (GAS) is a bacterium commonly carried in the throat and on the skin, often without symptoms but it can cause mild to severe illness, such as strep throat, necrotizing fasciitis, and impetigo. Streptococcal Disease Group B is a bacterium that colonizes in the colon and genital tract of women and may cause infections in mothers and be passed to their infants at the time of delivery and cause meningitis and sepsis. It is common for an adult to carry this disease and not have symptoms. The mode of transmission in non-pregnant adults is unknown. Methicillin-resistant *Staphylococcus aureus* (MRSA) is a resistant form of staph bacteria that is primarily spread through direct skin to skin contact. Athletes, children in childcare settings, and congregate settings such as prisons and jails are at a high risk for MRSA.

<table>
<thead>
<tr>
<th>Disease</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRSA (community associated)</td>
<td>21</td>
<td>17</td>
<td>22</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>Streptococcus (Group A)</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Streptococcus (Group B)</td>
<td>11</td>
<td>11</td>
<td>9</td>
<td>9</td>
<td>17</td>
</tr>
</tbody>
</table>

Source: SENDSS

**To report an infectious disease contact:**

**North Central Health District**  
**Epidemiology and Infectious Disease Unit**  
**201 Second St, Ste 1100**  
**Macon, GA 31201**  
**Phone (478)751-6303**  
**Fax (478)752-1710**
ENVIRONMENTAL HEALTH

The Environmental Health Section at the North Central Health District provides control and prevention through a combination of surveillance, education, enforcement, and assessment programs designed to identify and abate the environmental conditions that adversely impact human health. Additional information, including Rules and Regulations, can be found for each program by directing your web browser to the Division of Public Health Environmental Health Section: [www.georgiaeh.us](http://www.georgiaeh.us).

The following services are provided by local and district environmental specialists within the NCHD:

- Plan review, permitting, inspection and complaint investigation of:
  - Food Service establishments
  - Tourist accommodations
  - Public Swimming Pools
  - On-site sewage management systems and pumper operations
- Investigation of foodborne, waterborne and vectorborne diseases
- On-site sewage contractor testing and certification
- Investigation of general nuisance complaints concerning sewage, insects, rodents, solid waste, and other environmental issues
- Inspection and testing of individual water wells
- Conducts investigations and provides technical assistance to private physicians, veterinarians, hospital emergency rooms, and local animal control shelters by following the Rabies Control Law and coordinates specimen testing with the Georgia Public Health Laboratory.
- Childhood Lead Poisoning Prevention Program

Vectorborne/Zoonotic Disease

Vectorborne diseases are those bacterial and viral illnesses transmitted by mosquitoes, ticks, and fleas. Zoonotic diseases are spread between animals and humans and are caused by bacteria, viruses, parasites, and fungi.

- The NCHD Epidemiology Program interviews reported human cases of Vectorborne and zoonotic diseases. These interviews provide valuable epidemiological data as well as education to infected residents.
- The NCHD Environmental Specialists work to educate the public regarding the prevention of mosquito-borne viruses in the human and equine populations. In addition, public health environmentalists work closely with the District and State Epidemiologists in the area of surveillance, submitting specimens as needed and reporting and mapping areas of concern throughout the District.

Table 12: Vectorborne Diseases in Houston County.

<table>
<thead>
<tr>
<th>Vectorborne/Zoonotic Diseases (Cases)</th>
<th>Houston County, 2007-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anaplasma</td>
<td>2</td>
</tr>
<tr>
<td>Brucellosis</td>
<td>1</td>
</tr>
<tr>
<td>Ehrlichiosis/Anaplasmosis</td>
<td>3</td>
</tr>
<tr>
<td>Lyme</td>
<td>20</td>
</tr>
<tr>
<td>Malaria</td>
<td>2</td>
</tr>
<tr>
<td>Rabies</td>
<td>8</td>
</tr>
<tr>
<td>Rocky Mountain Spotted Fever</td>
<td>7</td>
</tr>
<tr>
<td>Toxoplasmosis</td>
<td>6</td>
</tr>
<tr>
<td>West Nile Virus</td>
<td>1</td>
</tr>
</tbody>
</table>
Rabies

Rabies is a preventable viral disease of mammals most often transmitted through the bite of a rabid animal. The vast majority of rabies cases reported to the Centers for Disease Control and Prevention (CDC) each year occur in wild animals like raccoons, skunks, bats, and foxes. The rabies virus infects the central nervous system, ultimately causing disease in the brain and death. The early symptoms of rabies in people are similar to that of many other illnesses, including fever, headache, and general weakness or discomfort. As the disease progresses, more specific symptoms appear and may include insomnia, anxiety, confusion, slight or partial paralysis, excitation, hallucinations, agitation, hypersalivation (increase in saliva), difficulty swallowing, and hydrophobia (fear of water). Death usually occurs within days of the onset of these symptoms.

Although human rabies deaths are rare, the estimated public health costs associated with disease detection, prevention, and control have risen, exceeding $300 million annually. These costs include the vaccination of companion animals, animal control programs, maintenance of rabies laboratories, and medical costs, such as those incurred for rabies postexposure prophylaxis (PEP). Although the cost varies, a course of rabies immune globulin and five doses of vaccine given over a 4-week period typically exceeds $1,000. The cost per human life saved from rabies ranges from approximately $10,000 to $100 million, depending on the nature of the exposure and the probability of rabies in a region.

Table 13: Types of Animals Tested

<table>
<thead>
<tr>
<th>Animal</th>
<th>How Many Tested</th>
<th>Tested Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cat</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>Dog</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>Bat</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Fox</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Raccoon</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Opossum</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

- The greatest number of rabies tests are done on dogs and cats.
- **Raccoons and bats are the most likely to test positive in Houston County.**
- From 2001-2011, there was an **average of 3 rabid animals per year** in Houston County.

Source: Houston County Environmental Health
MATERNAL AND CHILD HEALTH

The well-being of mothers, infants, and children determines the health of the next generation and can help predict future public health challenges for families, communities, and the health care system. The objectives of the Maternal and Child Health topic area address a wide range of conditions, health behaviors, and health systems indicators that affect the health, wellness, and quality of life of women, children, and families.

Pregnancy

Pregnancy can provide an opportunity to identify existing health risks in women and to prevent future health problems for women and their children. These health risks may include: Hypertension and heart disease, Diabetes, Depression, Genetic conditions, Sexually transmitted diseases (STDs), Tobacco use and alcohol abuse, inadequate nutrition, and Unhealthy weight. The risk of maternal and infant mortality and pregnancy-related complications can be reduced by increasing access to quality preconception (before pregnancy) and interconception (between pregnancies) care. Moreover, healthy birth outcomes and early identification and treatment of health conditions among infants can prevent death or disability and enable children to reach their full potential. During 1961–2011, birth rates decreased for all women aged 15–44 years. During 2007–2011, birth rates decreased for all women aged <35 years, with rates for women aged 20–24 years (85.3 per 1,000 population) and those aged 15–19 years (31.3) reaching historic lows.

Figure 24: Pregnancy Rates by Age Group

- The overall pregnancy rate for Houston County from 2007-2010 was 55 per 1,000 female population, which was slightly more than the pregnancy rate in the District of 54.
- The total number of pregnancies which occurred in Houston County from 2007 – 2010 was 10,124.

Source: OASIS
From 2007-2010, Hispanic and Other women consistently had the highest rates of pregnancy.

**Teen Pregnancy**

In 2011, a total of 329,797 babies were born to women aged 15–19 years, for a live birth rate of 31.3 per 1,000 women in this age group. This is a record low for U.S. teens in this age group, and a drop of 8% from 2010. Birth rates fell 11% for women aged 15–17 years, and 7% for women aged 18–19 years. While reasons for the declines are not clear, teens seem to be less sexually active, and more of those who are sexually active seem to be using birth control than in previous years. Teen pregnancy and childbearing bring substantial social and economic costs through immediate and long-term impacts on teen parents and their children and therefore remain a concern for public health.

In 2008, teen pregnancy and childbirth accounted for nearly $11 billion per year in costs to U.S. taxpayers for increased health care and foster care, increased incarceration rates among children of teen parents, and lost tax revenue because of lower educational attainment and income among teen mothers. Pregnancy and birth are significant contributors to high school dropout rates among girls. Only about 50% of teen mothers receive a high school diploma by 22 years of age, versus approximately 90% of women who had not given birth during adolescence. The children of teenage mothers are more likely to have lower school achievement and drop out of high school, have more health problems, be incarcerated at some time during adolescence, give birth as a teenager, and face unemployment as a young adult.

These effects remain for the teen mother and her child even after adjusting for those factors that increased the teenager’s risk for pregnancy, such as growing up in poverty, having parents with low levels of education, growing up in a single-parent family, and having poor performance in school.
From 2007-2010, Other teens (15-19 years old) had the highest pregnancy rate.

In Houston County (2011), repeat teen births occurred most often in the 18-19 year old age group.
Prenatal Care

Women who see a healthcare provider early and regularly during pregnancy improve their chances of having healthier babies, are less likely to deliver prematurely, and are less likely to have other serious problems related to pregnancy.

The Kotelchuck measure is an index of adequacy of prenatal care based upon month of entry, number of prenatal visits and gestational age of infant at birth. It uses American College of Obstetricians and Gynecologists standards for number of visits. The number of births by the "inadequate" value from the Kotelchuck Index, per 100 live births. Formula = \([\frac{\text{Number of Live Births with Inadequate Kotelchuck Value}}{\text{Number of Live Births}}] \times 100\). Based on the Kotelchuck index, inadequate prenatal care is defined by a score of 79% or less.

**Figure 27: Percent of Births with Inadequate Prenatal Care**

- From 2007-2011, women categorized as other had the highest number of births with an inadequate Kotelchuck Index.
- In 2008 and 2009 there was a peak in inadequate prenatal care in Houston County in all race groups.
Abortions

A legal abortion is defined as an intervention performed by a licensed clinician that is intended to terminate an ongoing pregnancy. Abortion data is used to document the number and characteristics of women obtaining legal induced abortions, evaluate the effectiveness of programs for reducing teen pregnancies and unintended pregnancies among women of all ages, calculate pregnancy rates, on the basis of the number of pregnancies ending in abortion, in conjunction with birth data and pregnancy loss estimates, and monitor changes in clinical practice patterns related to abortion, such as changes in the types of procedures used, and weeks of gestation at the time of abortion. This information is needed to calculate the mortality rate of specific abortion procedures.

In 2009, 784,507 legal induced abortions were reported to CDC from 48 reporting areas. The abortion rate for 2009 was 15.1 abortions per 1,000 women aged 15–44 years and the abortion ratio was 227 abortions per 1,000 live births. Women in their twenties accounted for the majority of abortions in 2009 and throughout the period of analysis. The majority of abortions in 2009 took place early in gestation: 91.7% of abortions were performed at ≤13 weeks’ gestation, and of the abortions performed at ≤13 weeks’ gestation, 69.8% were performed at ≤8 weeks’ gestation.

- The number of abortions reported in Houston County from 2007-2011 was 1,663 and the rate was 7.2 per 1,000 female populations.
- Houston County ranked 41st highest out of 157 counties in Georgia (2 counties did not have data) for the rate of induced terminations from 2007-2011.

Figure 28: Induced Terminations
Infant Mortality

- From 2007-2011 the infant mortality rate for Houston County is **higher** than that of the State but in 2010 and 2011 the rate was lower.
- Infant Mortality rates are **highest in the black population**.

**Figure 29: Infant Mortality**

![Infant Mortality Graph](Image)

*Source: OASIS*

**Table 15: Top Causes of Infant Deaths**

<table>
<thead>
<tr>
<th>Cause of Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prematurity</td>
</tr>
<tr>
<td>Birth Defects</td>
</tr>
<tr>
<td>Respiratory Distress Syndrome (RDS)</td>
</tr>
<tr>
<td>External Causes</td>
</tr>
<tr>
<td>Sudden Infant Death Syndrome (SIDS)</td>
</tr>
<tr>
<td>Birth Related infections</td>
</tr>
</tbody>
</table>

*Source: OASIS*
Low Birth Weight Births

A weight of less than 5.5 lbs, or 2500 grams, at birth is considered to be low birth weight. A low birth weight infant can be born too small, too early, or both. This can happen for many different reasons which may or may not be related. Some causes may be smoking or drinking alcohol while pregnant, lack of weight gain, and be younger than 15 years or older than 35 years. Low birth weight babies are at an increased risk for serious health problems, disabilities, and death.

Figure 30: Percent of Low Birth Weight Live Births

- **8.8% of births** in Houston County from 2007-2011 were babies with low birth weights, compared to 9.5% for Georgia.

Source: OASIS
Blacks give birth to low birth weight babies at a **higher percentage** than any other race/ethnicity.

**Childhood Morbidity**

**Table 16: Emergency Department Visits in Children**

<table>
<thead>
<tr>
<th>Cause of Emergency Department Visit</th>
<th>Houston County</th>
<th>Ed Visit Rate per 100,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of ED Visits</td>
<td></td>
</tr>
<tr>
<td>External Causes</td>
<td>18,228</td>
<td>9,556.7</td>
</tr>
<tr>
<td>Motor Vehicle Crashes</td>
<td>1,817</td>
<td>952.6</td>
</tr>
<tr>
<td>Falls</td>
<td>4,736</td>
<td>2,483.0</td>
</tr>
<tr>
<td>Respiratory Diseases</td>
<td>11,627</td>
<td>6,095.9</td>
</tr>
<tr>
<td>Asthma</td>
<td>1,323</td>
<td>693.6</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>689</td>
<td>361.2</td>
</tr>
<tr>
<td>Infectious and Parasitic Diseases</td>
<td>3,174</td>
<td>1,664.1</td>
</tr>
<tr>
<td>Digestive System Diseases</td>
<td>2,816</td>
<td>1,476.4</td>
</tr>
<tr>
<td>Reproductive and Urinary</td>
<td>2,166</td>
<td>1,135.6</td>
</tr>
<tr>
<td>Bone and Muscle Diseases</td>
<td>1,360</td>
<td>713.0</td>
</tr>
<tr>
<td>Mental Health and Behavioral</td>
<td>1,004</td>
<td>526.4</td>
</tr>
</tbody>
</table>

Injury and respiratory illnesses are the leading causes of emergency department visits in children 1-19 years of age in Houston County from 2007-2011.
Childhood Immunizations

The results of the 2011 Immunization Report for Georgia indicates that District 5-2 (North Central Health District) immunization rate of children by 24 months of age was higher than the state rate (83.5% vs. 82.4%). By the end of data collection, the district up-to-date (UTD) immunization rate was higher than the state rate (99% vs. 94%).

<table>
<thead>
<tr>
<th>Immunization Summary by Series &amp; Antigen, District 5-2, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>UTD immunization rate* by 24 months</td>
</tr>
<tr>
<td>UTD immunization rate* by end of data collection</td>
</tr>
<tr>
<td>4 Dtap by 24 months</td>
</tr>
<tr>
<td>3 Dtap by 24 months</td>
</tr>
<tr>
<td>3 IPV by 24 months</td>
</tr>
<tr>
<td>1 MMR by 24 months</td>
</tr>
<tr>
<td>UTD Hib by 24 months</td>
</tr>
<tr>
<td>3 Hep B by 24 months</td>
</tr>
<tr>
<td>1 Varicella by 24 months</td>
</tr>
<tr>
<td>UTD PCV by 24 months</td>
</tr>
<tr>
<td>2 Rotavirus by 24 months</td>
</tr>
<tr>
<td>2 Hep A by 24 months</td>
</tr>
<tr>
<td>1 Influenza by 24 months</td>
</tr>
<tr>
<td>2 H1N1</td>
</tr>
</tbody>
</table>

Source: Georgia 2011 Immunization Report

1 This value includes children who become UTD during the data collection period. This number, when compared to the values followed with "by 24 months", is a testament to the efforts of district staff to reach the children originally listed as incomplete in their district.

* This rate includes children up-to-date by ACIP-recommended catch-up schedule.

Figure 32: Percentage of Children UTD on Immunizations

From 2010 to 2011: The District 5-2 UTD immunization rate by 24 months increased by 11% from 2010 to 2011. The district UTD immunization rate by the end of data collection increased by 2.1% from 2010 to 2011.
Immunization Rates by Antigen: In District 5-2, the UTD immunization rate by 24 months for most antigens fluctuated from 2005-2010. Increasing to higher rates for all antigens in 2011.

Among antigen rates in 2011, the DTaP UTD immunization rate was the lowest at 87.6%, up from 81.2% in 2010. The Hib UTD immunization rate was second-lowest at 94.9%, up from 90.2% in 2010.

Since first being ACIP-recommended in 2002, UTD coverage by 24 months for he pneumococcal conjugate vaccine increased from 43.2% in 2005 to 97.9% in 2011.

Influenza

**Table 18: Immunization Coverage by 24 months of age**

<table>
<thead>
<tr>
<th>Antigen-Specific Immunization Coverage (%) by 24 months of age, District 5-2, 2005-2011</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Dtap by 24 months</td>
<td>84.2</td>
<td>86.3</td>
<td>76.9</td>
<td>81.3</td>
<td>81.2</td>
<td>87.6</td>
</tr>
<tr>
<td>3 Polio by 24 months</td>
<td>92.1</td>
<td>95.4</td>
<td>91.0</td>
<td>88.8</td>
<td>95.5</td>
<td>96.9</td>
</tr>
<tr>
<td>1 MMR by 24 months</td>
<td>91.4</td>
<td>93.1</td>
<td>84.6</td>
<td>89.6</td>
<td>93.2</td>
<td>96.9</td>
</tr>
<tr>
<td>UTD HiB by 24 months</td>
<td>89.2</td>
<td>92.4</td>
<td>82.1</td>
<td>85.8</td>
<td>90.2</td>
<td>94.9</td>
</tr>
<tr>
<td>3 Hepatitis B by 24 months</td>
<td>90.7</td>
<td>93.9</td>
<td>88.5</td>
<td>91.0</td>
<td>97.0</td>
<td>97.9</td>
</tr>
<tr>
<td>1 Varicella by 24 months</td>
<td>92.1</td>
<td>93.9</td>
<td>84.6</td>
<td>88.1</td>
<td>95.5</td>
<td>96.9</td>
</tr>
<tr>
<td>UTD PCV by 24 months</td>
<td>43.2</td>
<td>75.6</td>
<td>78.2</td>
<td>85.1</td>
<td>90.2</td>
<td>97.9</td>
</tr>
<tr>
<td>2 Rotavirus</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>65.4</td>
<td>68.0</td>
</tr>
<tr>
<td>1 Influenza by 24 months</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>49.6</td>
<td>53.6</td>
</tr>
</tbody>
</table>

Source: Georgia 2011 Immunization Report

School-Located Influenza Vaccination Programs

Influenza is a contributing factor to school absences. School-located influenza vaccination (SLIV) programs provide greater access for students to be immunized.

Houston County has seen a steady increase in participation in the SLIV program.
Youth Risk Behaviors

Health risk behaviors are often established during childhood and adolescence and can extend into adulthood. Encouraging the adoption of healthy behaviors during childhood is easier and more effective than trying to change unhealthy behaviors during adulthood.

Youth Obesity

Obesity in children and adolescents has immediate and long-term effects on health and well being and continues to be a major public health concern in the U.S. Immediate health effects includes cardiovascular disease such as high cholesterol or high blood pressure, prediabetes, bone and joint problems, sleep apnea, and social and psychological problems such as stigmatization and poor self-esteem. Long-term health effects include heart disease, type 2 diabetes, stroke, several types of cancer, and osteoarthritis.

According to the High School Youth Risk Behavior Survey in 2011 (covering grades 9-12):

- **15% of Georgia high school youth were estimated to be obese** compared to the U.S. rate of 13%
- **Black youth had the highest percentage of obesity** at 17.6%, compared to whites at 12.8% and Hispanics at 16.5%.
- **43.1% ate vegetables less than one time per day** compared to 37.7% in the U.S.
- **53.8% did not attend physical education classes in an average week** (when in school).
- **36.6% reported watching television** for 3 or more hours per day.
- **27.8% reported using a computer** for 3 or more hours per day.
- **81.9% drank a can, bottle or glass of soda/pop** at least once during the week.

According to the Middle School Youth Risk Behavior Survey in 2011 (covering grades 6-8):

- **35.3% did not attend physical education classes in an average week** (when in school).
- **45.2% reported watching television** for 3 or more hours per day.
- **30.5% reported using a computer** for 3 or more hours per day.
Alcohol and Other Drug Use

Alcohol and other drug use among our nation’s youth remains a major public health problem. Substance use and abuse can increase the risk for injuries, violence, HIV infection, and other diseases.

In 2011:

- High school students that report drinking alcohol has decreased over the years, however 34.6% of high school students report current alcohol use and 66.1% have had alcohol at least once in their lifetime.
- 17.5% of high school students report having five or more drinks of alcohol in a row within a couple of hours on at least 1 day in the past month.

- High school students that report marijuana use has increased over the years
- 21.2% of high school students report current marijuana use and 37.9% have used marijuana at least once in their lifetime.
- 6.7% of high school students report ever using cocaine, 4.7% report heroin use, 6% report methamphetamines use, and 8.5% report ecstasy use.
Youth Smoking
According to the 2012 Surgeon General’s report on tobacco and youth, more than 600,000 middle school students and 3 million high school students smoke cigarettes. Rates of decline for cigarette smoking have slowed in the last decade and rates of decline for smokeless tobacco use have stalled completely. Smoking can cause bad breath, coughing, increased heart beat and blood pressure, respiratory problems, reduced immune function, increased illness, tooth decay, gum disease, and pre-cancerous gene mutations. Smoking during youth is also associated with an increased likelihood of high risk sexual behavior and using illegal drugs and alcohol. Some risk factors associated with youth tobacco use include low socioeconomic status, tobacco use by family and friends, lack of skills to resist tobacco use, lack of parental support or involvement, ease of access to tobacco products, low levels of educational achievement, low self esteem and aggressive behavior (e.g., fighting, carrying weapons).

Figure 36: Teens currently using cigarettes

- 47.1% of Georgia high school and 26.1% of Georgia middle school students have tried cigarette smoking, even one or two puffs, during their lifetime.
- Among those that currently smoke, 51.4% of Georgia high school students did not try to quit smoking within the past year.
Figure 37: Teens currently using chewing tobacco, snuff, or dip

- Use of smokeless tobacco products has increased in Georgia over the past 10 years.
  - 9.6% of Georgia high school and 4.7% of Georgia middle school students are currently using smokeless tobacco products.

Source: YRBSS
BEHAVIORAL AND MENTAL HEALTH

Mental health disorders are common in the United States and can begin at any age without respect to gender or sex. They are thought to be caused by a variety of biochemical, genetic, and environmental risk factors and many individuals suffer from more than one disorder at a time.

According the National Institute of Mental Health:

- It is estimated that in any given year **25% of adults** are diagnosable for one or more mental health disorders.
- **Women are no more or less likely than men** to experience any disorder over their lifetime.
- Non-Hispanic **blacks are 30% less likely** than non-Hispanic whites to experience any disorder during their lifetime.
- **Average age of onset is 14 years old.**
- Among all Americans, 36.2 million people paid for mental health services totaling **$57.5 billion in 2006**. This means the average expenditure per person was $1,591. Within this group, 4.6 million children received mental health services totaling $8.9 billion. The average expenditure per child was higher than that for the average American at $1,931.
- **36% of those with a disorder are receiving treatment.**

Table 19: Immunization Coverage by 24 months of age

<table>
<thead>
<tr>
<th>Type of Disorder</th>
<th>Estimated 12-Month Prevalence (%) of U.S. Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any Anxiety Disorder</td>
<td>18.1</td>
</tr>
<tr>
<td>Generalized Anxiety Disorder</td>
<td>3.1</td>
</tr>
<tr>
<td>Any Mood Disorder</td>
<td>9.5</td>
</tr>
<tr>
<td>Bipolar Disorder</td>
<td>2.6</td>
</tr>
<tr>
<td>Major Depression</td>
<td>6.7</td>
</tr>
<tr>
<td>Any Personality Disorder</td>
<td>9.1</td>
</tr>
<tr>
<td>Attention-Deficit/Hyperactivity Disorder</td>
<td>4.1</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>1.1</td>
</tr>
</tbody>
</table>

Source: NIMH
CRIME AND SAFETY

Violence is a serious public health problem in the United States. From infants to the elderly, it affects people in all stages of life. Injuries—including unintentional injuries, homicide, and suicide, are the leading cause of death for people ages 1 to 44.

Crime

Table 20: Number of Violent and Property Crimes by Offense

<table>
<thead>
<tr>
<th>Year</th>
<th>Murder</th>
<th>Rape</th>
<th>Robbery</th>
<th>Assault</th>
<th>Burglary</th>
<th>Larceny</th>
<th>Vehicle Theft</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>3</td>
<td>34</td>
<td>142</td>
<td>341</td>
<td>1260</td>
<td>3355</td>
<td>276</td>
</tr>
<tr>
<td>2008</td>
<td>8</td>
<td>22</td>
<td>107</td>
<td>318</td>
<td>1181</td>
<td>4106</td>
<td>262</td>
</tr>
<tr>
<td>2009</td>
<td>4</td>
<td>18</td>
<td>125</td>
<td>340</td>
<td>1074</td>
<td>3621</td>
<td>209</td>
</tr>
<tr>
<td>2010</td>
<td>10</td>
<td>30</td>
<td>110</td>
<td>278</td>
<td>1032</td>
<td>3302</td>
<td>215</td>
</tr>
<tr>
<td>2011</td>
<td>5</td>
<td>31</td>
<td>150</td>
<td>286</td>
<td>1147</td>
<td>4562</td>
<td>262</td>
</tr>
</tbody>
</table>

Source: GBI

- From 2007-2011, Larceny was the most frequently committed crime in Houston County.
- The violent crime rate of Houston County in 2011 was 337.4 per 100,000 population, lower than the Georgia rate of 366.4.
- The rate of property crimes in Houston County for 2011 was 4,368.1 per 100,000 population, higher than the Georgia rate of 3,575.9.

Homicide

Figure 38: Mortality Rate due to Homicide

From 2007-2011, the homicide rate for Houston County in the black population was 9.8 per 100,000, almost 3 times higher than the white population which had a rate of 3.4.

The age group with the highest homicide rate was 20-29 year olds with a rate of 10 per 100,000.

Source: OASIS
Family Violence

- According to GBI, the most common type of family violence incidents is superficial wounds.
- The most common weapon used in occurrences of domestic violence is a person’s hand/fist and most of the incidents the aggressor was a family member or member of the same household.

Child Maltreatment

<table>
<thead>
<tr>
<th>Abuse Type</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>FATAL INJURY</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>PERMANENTLY DISABLED</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>TEMPORARILY DISABLED</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>BROKEN BONES</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>GUN/KNIFE WOUNDS</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>SUPERFICIAL WOUNDS</td>
<td>432</td>
<td>165</td>
</tr>
<tr>
<td>PROPERTY DAMAGE</td>
<td>153</td>
<td>57</td>
</tr>
<tr>
<td>THREATS</td>
<td>101</td>
<td>31</td>
</tr>
<tr>
<td>ABUSIVE LANGUAGE</td>
<td>140</td>
<td>54</td>
</tr>
<tr>
<td>SEXUAL ABUSE</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>OTHER ABUSE</td>
<td>108</td>
<td>37</td>
</tr>
</tbody>
</table>

Source: GBI

In 2012, Houston County ranked 35th lowest of the 159 counties reporting in Georgia for the rate of child abuse and or neglect.
Injuries

Injuries due to external causes account for 22.8% of all emergency department visits in Houston County from 2006 to 2010 and falls are the number one cause of emergency department visits due to injury. During this time period, the rate of emergency department visits for falls was highest in the elderly, over age 75, with a rate of 6,686.6 per 100,000 visits compared to 2,221.7 for all age groups.

Table 22: Emergency Department Visit Rate due to External Causes

<table>
<thead>
<tr>
<th>ER Visits Age Adjusted Rate, Houston County, 2006-2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falls</td>
</tr>
<tr>
<td>Motor Vehicle Crashes</td>
</tr>
<tr>
<td>Homicide</td>
</tr>
<tr>
<td>Poisoning</td>
</tr>
<tr>
<td>Suicide</td>
</tr>
<tr>
<td>Accidental Shooting</td>
</tr>
<tr>
<td>Fire and Smoke Exposure</td>
</tr>
<tr>
<td>Legal Intervention</td>
</tr>
<tr>
<td>Suffocation</td>
</tr>
<tr>
<td>Drowning</td>
</tr>
</tbody>
</table>

Source: OASIS

Motor Vehicle Crashes
The emergency department visit rate for motor vehicle crashes (MVCs) from 2006-2010 in Houston County was 1,173.4 per 100,000 visits higher than the state rate of 1,081.8.

Figure 40: Mortality Rates by Age due to Motor Vehicle Crashes

The mortality rate for MVCs in Houston County accounts for a large amount of deaths. In 2008, Houston County ranked 14th highest out of 159 counties in Georgia for the number of crash fatalities.
Table 23: Number of Motor Vehicle Crashes by Person/ Crash Type

<table>
<thead>
<tr>
<th>Number of Motor Vehicle Crashes by Person/ Crash Type in Houston County, 2003 - 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passenger Vehicles</td>
</tr>
<tr>
<td>Intersection Related</td>
</tr>
<tr>
<td>Child Passenger (Ages 0-15)</td>
</tr>
<tr>
<td>Young Adult Driver (Ages 15-20)</td>
</tr>
<tr>
<td>Elderly Driver (Ages 65 and older)</td>
</tr>
<tr>
<td>At Least 1 Unrestrained Driver</td>
</tr>
<tr>
<td>Motorcycles</td>
</tr>
<tr>
<td>Pedestrians</td>
</tr>
<tr>
<td>Speeding Involved</td>
</tr>
<tr>
<td>Bicyclist (or other cyclist)</td>
</tr>
</tbody>
</table>

Source: OASIS

Most MVCs occurred with passenger vehicles and in intersections.

Suicide

The suicide rate in Houston County is higher than the state and district rates from 2007-2011 and it is 6 times higher for whites (18.2 per 100,000 population) than for blacks (3). Although males have a higher mortality rate (13.3 per 100,000 population) compared to females (4.4), both sexes have almost the same amount of suicide related emergency department visits (Males: 30.5 per 100,000 population, Females: 34.5 per 100,000 population). According to the High School Youth Risk Behavior Survey in 2011 (covering grades 9-12), 15.5% of high school students have seriously considered attempting suicide during the last year and 10.8% have attempted suicide one or more times in the last year.

Figure 41: Mortality Rates by Age due to Motor Vehicle Crashes

Source: OASIS
Appendix
Sources

Local Public Health System Assessment


Overview


Health Care Access


U.S. Department of Health and Human Services, Health Resources County Comparison Tool. Retrieved from arf.hrsa.gov/arfwebtool


Leading Causes

**Chronic Disease**


**Infectious Disease**


Georgia Department of Public Health, Office of Health Indicators for Planning (OHIP). Online


Georgia Department of Public Health, Epidemiology Branch, HIV/AIDS Epidemiology Section.


Georgia Department of Public Health. North Central Health District Immunization Program.

Environmental Health


Georgia Department of Public Health. North Central Health District, Houston County Environmental Health Program.

Maternal and Child Health


Georgia Department of Public Health, Office of Health Indicators for Planning.


Georgia Department of Public Health. North Central Health District, Immunization Program, School Located Influenza Vaccination Program.


**Behavioral and Mental Health**


**Crime and Safety**


Contact Us

Houston County Health Department

98 Cohen Walker Drive
Warner Robins, GA 31088
(478) 218-2000 Office
(478) 218-2017 Fax
(478) 218-2020 Environmental Health
Hours of Operation:
8:00 a.m. to 4:30 p.m. Monday, Wednesday, Thursday and Friday
8:00 a.m. to 6:00 p.m. Tuesday

County Nurse Manager: Chris Sikes, RN
Environmental Health County Manager: Christine Buffington

North Central Health District

201 Second Street, Suite 1100
Macon, GA 31201
478-751-6303 Office
478-751-6099 Fax
Hours of Operation:
7:30 a.m. - 5:00 p.m.

District Health Director: David N. Harvey, M.D.
District Administrator: Curt Reynolds, CPA (through 2013)
Morris Hutcheson (2014 - present)

Deputy District Health Director: Karen Ebey-Tessendorf, MPH

District Epidemiologist: Amber Erickson, MPH
District Child Health Coordinator: Evans Ward

District Public Health Nursing & Clinical Director: Debbie Liby, RN
District Infectious Disease Unit Supervisor: Ronald Boone

District Environmental Health Director: Carla Coley
District Public Information Officer: Jennifer Jones

District Emergency Preparedness Coordinator: Laurice Bentley
District Human Resources Director: Marsha Stone