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Wake County Human Services Public Health Quarterly Report April–June 2013

Special Edition: Clinical Services

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Table of Contents

Introduction	3
Health Issue : Teen Pregnancy	4
Health Services: Family Planning and Reproductive Health	5
Health Issue: Infant Mortality	6
Health Services: Prenatal Care	8
Health Issue: Asthma	8
Health Services: Asthma Care	9
Health Issue: Childhood Injury	10
Health Issue: Obesity	11
Health Services: Nutrition	12
Health Issue: Oral Health	14
Health Services: Dental Health	14
Health Services: Pharmacy	15
Health Issue: Vaccine Preventable Diseases	15
Health Services: Immunizations	15
Health Services: Child Health	16
New Horizons for Clinical Data Management: Electronic Health Records	17
References	19

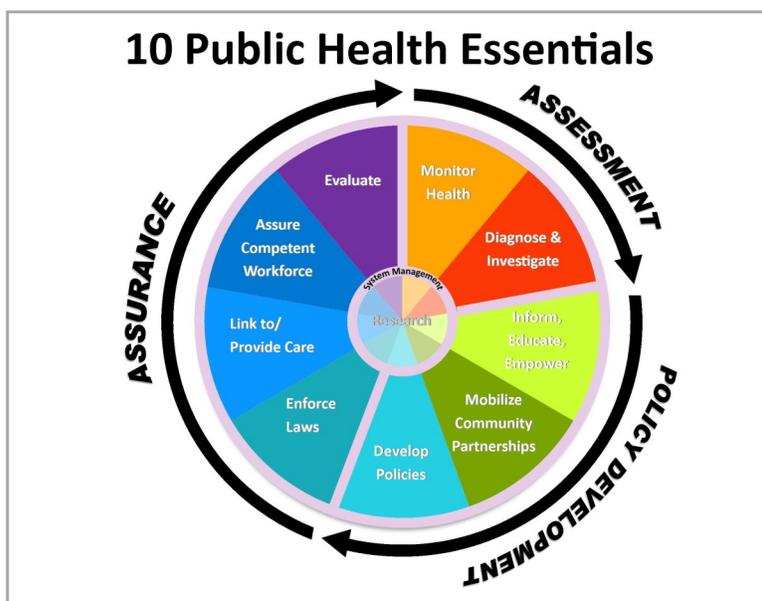
Introduction

Wake County Human Services (WCHS), an accredited health department, continues to strive to perform the three core functions of assessment, policy development and assurance and the 10 public health essential services (see Figure 1). This report helps fulfill public health essential services:

- Monitor health status to identify and solve community health problems
- Inform, educate, and empower people about health issues.
- Mobilize community partnerships and action to identify and solve health problems.

Health and safety information about Wake County is provided on a quarterly basis for providers, policy makers and the community to better inform decision making.

Figure 1



Wake County's public health clinics offer health care for children and adults ranging from treatment to education. The clinics and services that support clinical activities include:

- Sexually Transmitted Diseases (STD)/HIV (Clinic A)
- Children's Clinics (Clinics B and C)
- Dental Care for Children (0–18 years) and Pregnant Women (Clinic D)
- Prevention Services (Clinic E)
- Tuberculosis (TB) Control (Room 215)
- Women's Health (Clinic F)
- Prenatal Care (Clinic G)
- Women, Infants, and Children (WIC)
- Pharmacy
- Pregnancy Care Management (PCM)
- Care Coordination for Children (CC4C)

This report features some of the programs and activities that address the health needs/issues of the populations served at these clinics.

Table 1

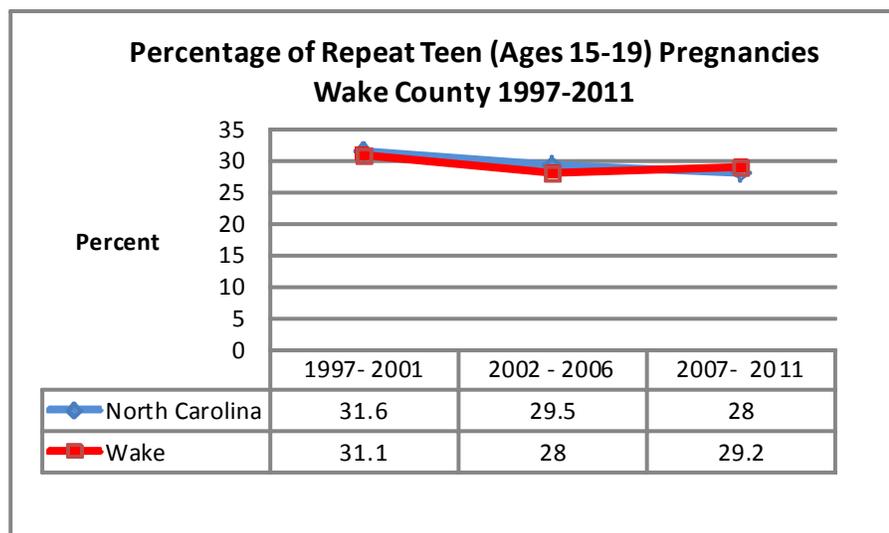
2011 Pregnancies/Rates (per 1000) in North Carolina Females Ages 15-19 by Race and Ethnicity										
Location	Total		White Non-Hispanic		African American Non-Hispanic		Other Non-Hispanic		Hispanic	
	Pregnancies	Rate	Pregnancies	Rate	Pregnancies	Rate	Pregnancies	Rate	Pregnancies	Rate
North Carolina	13,909	43.8	5,719	30.8	5,399	61.6	495	39.4	2,241	71.1
Wake County	877	28.1	203	11.4	445	53.3	20	12.3	203	59.2
Mecklenburg County	1,210	40.5	184	14.7	692	57.9	35	25.2	288	70.7

Data Source: NC Department of Health and Human Services, State Center for Health Statistics.

Disparities in the teenage pregnancy rate remain among racial and ethnicity groups. In 2011, Hispanic teens in Wake County had the highest rate of pregnancy (59.2 per 1,000) followed by African American non-Hispanic teens (53.3 per 1,000), white non-Hispanic (11.4 per 1,000) and for other non-Hispanic pregnancies (12.3 per 1,000) (see Table 1).

The percentage of repeat teen pregnancies decreased from 31.6% during 1997-2001 to 28% during 2002-2006. From 2007-2011 there was an increase to 29.2%, rising above North Carolina (28%) (see Figure 2). Giving birth as a teen increases health risks for the teen and her baby. Teen mothers suffer more health, social and emotional problems than older mothers and are at greater risk for complications of pregnancy and delivery.

Figure 2



Source: 2013 County Health Data Book, North Carolina Community Health Assessment Process. (2012, December 04).

Health Services: Family Planning and Reproductive Health

The Family Planning and Reproductive Health Program

The primary mission of the Family Planning and Reproductive Health Program is to reduce unintended pregnancies and improve health. Each local health department and district receives funding from the State of North Carolina to provide family planning services to low-income individuals.

The Family Planning and Reproductive Health Program supports a wide range of preventive care services that are critical to the reproductive and sexual health of both men and women. These services:

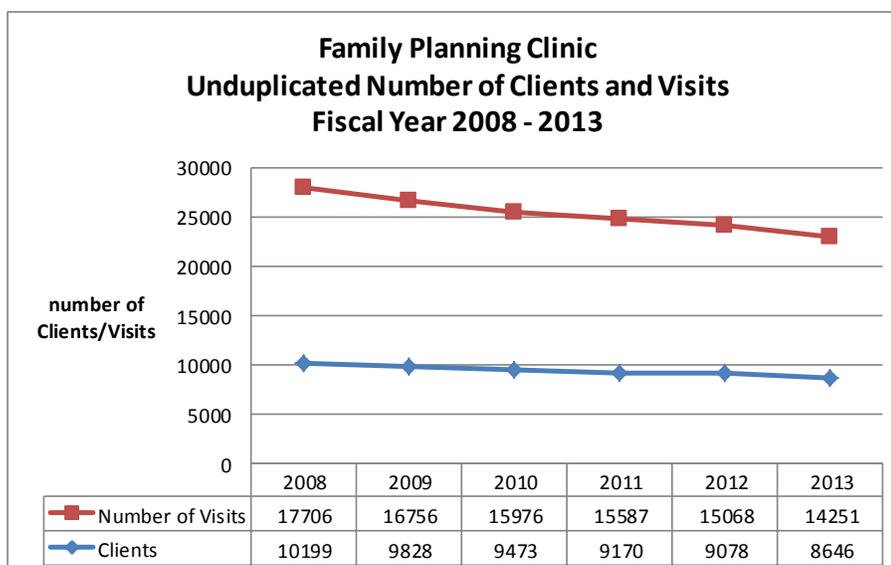
- Promote individual decision making regarding reproductive health
- Help reduce infant mortality and morbidity (illness) by decreasing unplanned pregnancies and the poor health outcomes associated with them
- Improve health by providing access to primary and preventive care
- Reduce health care costs by reducing high risk pregnancies and their outcomes

Affordable health care is important for women of childbearing age. Since July 24, 2009, the minimum wage in North Carolina has been \$7.25/hour for an annual salary of \$15,080. According to the U.S. Census Bureau American Fact Finder, Wake County, 2010, 7.2% (24,909) of women with children under the age of eighteen were head of the household with no husband present compared to 1.9% of men with children this age and no wife present. Single mother families have a higher poverty rate than other types of families.

There is an increased public cost related to teen pregnancy. In 2008, the National Campaign to Prevent Teen and Unplanned Pregnancy factored in costs including child welfare, criminal justice, public health, public assistance and lost tax revenue. Based on these factors, an estimated \$1, 428,000 cost savings would be realized by preventing pregnancies for 56 teens seen in the WCHS Family Planning Clinic that year. This would be a conservative estimate since all of the outcomes and costs cannot be measured. With health costs increasing dramatically since 2008, preventing pregnancy for 549 teens seen in the clinic last fiscal year could be a public cost savings of more than ten million dollars.

Budget constraints in recent years have influenced the program's ability to maintain staff salaries for extended clinic hours. This has led to a decrease in access to services. A downward trend has been seen in the number of visits to the family planning clinic (see Figure 3).

Figure 3



Source: Wake County Human Services AS-400 Patient Care Management System

Nurse-Family Partnership

Wake County's Nurse-Family Partnership Program is a program for low-income women who are having their first baby. A registered nurse visits the client in the home before twenty-eight weeks of pregnancy and continues to visit until the baby is two years of age. Nurses focus on:

- Healthy pregnancy outcomes
- Positive parenting
- Home safety
- Referrals for healthcare
- Childcare and support services
- Direction for continuing education
- Developing job skills
- Setting future goals for the family

To prevent repeat teen pregnancy, teens are a priority for the Nurse-Family Partnership. It is a free, voluntary and nationally recognized evidence-based program showing improved outcomes through randomized control trials.

Health Issue: Infant Mortality

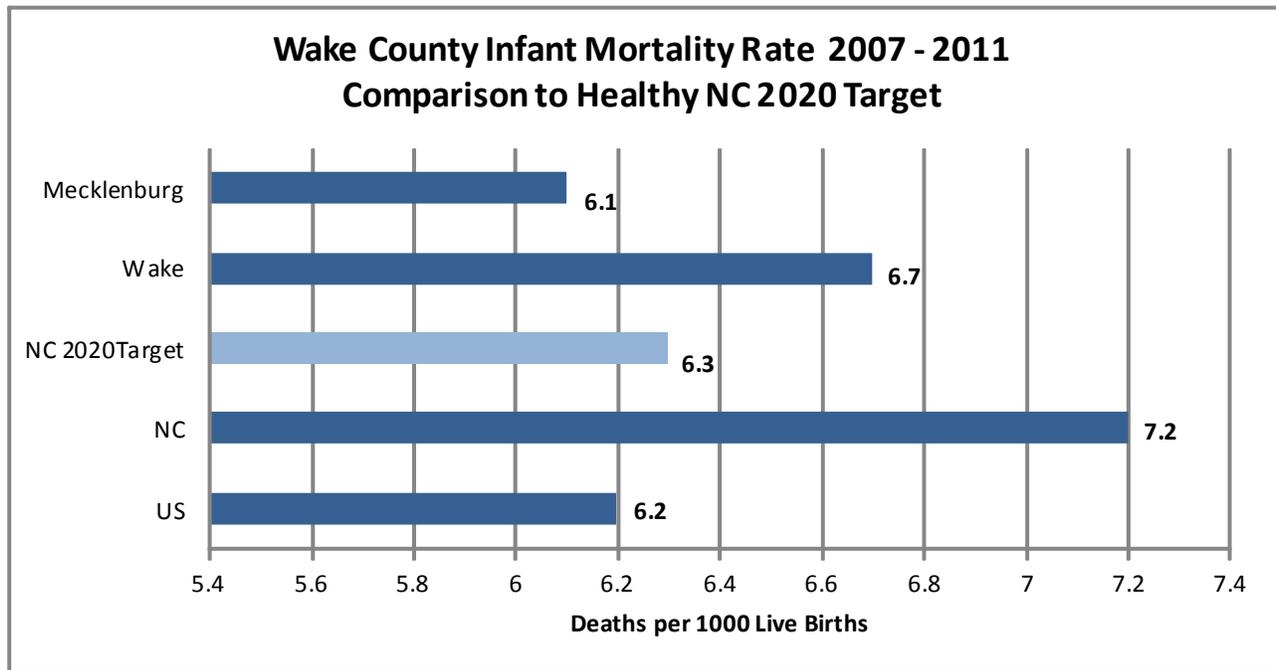
Infant mortality is the death of a baby before his or her first birthday. This rate is often used as an indicator to measure the health and well-being of a nation, because factors affecting the health of entire populations can also impact the mortality rate of infants. From 2007-2011 in Wake County, 437 babies under the age of 1 died.

According to the North Carolina Institute of Medicine, the most prevalent causes of infant mortality are:

- Birth defects
- Prematurity
- Low birth weight
- Sudden Infant Death Syndrome (SIDS)

Between 2007—2011 the infant mortality rate in Wake County exceeded Mecklenburg County, the United States and the Healthy North Carolina target rate (see Figure 4).

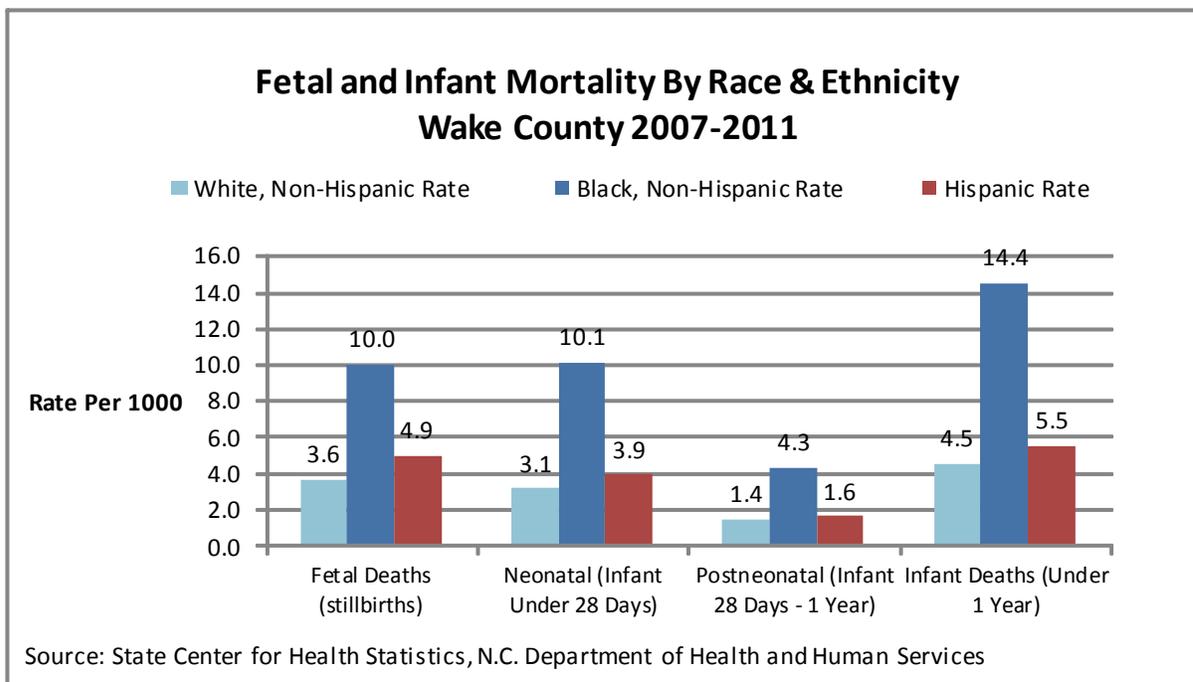
Figure 4



Source: 2013 County Health Data Book, North Carolina Community Health Assessment Process. (2012, December 04).

The greatest disparity in infant mortality exists among African Americans in Wake County, where African Americans suffer from a disproportionately higher infant mortality rate compared to all other groups. From 2007—2011, the infant mortality rate among African Americans was 3.2 times higher than among whites (14.4 compared to 4.5 per 1,000 live births, respectively) (see Figure 5).

Figure 5

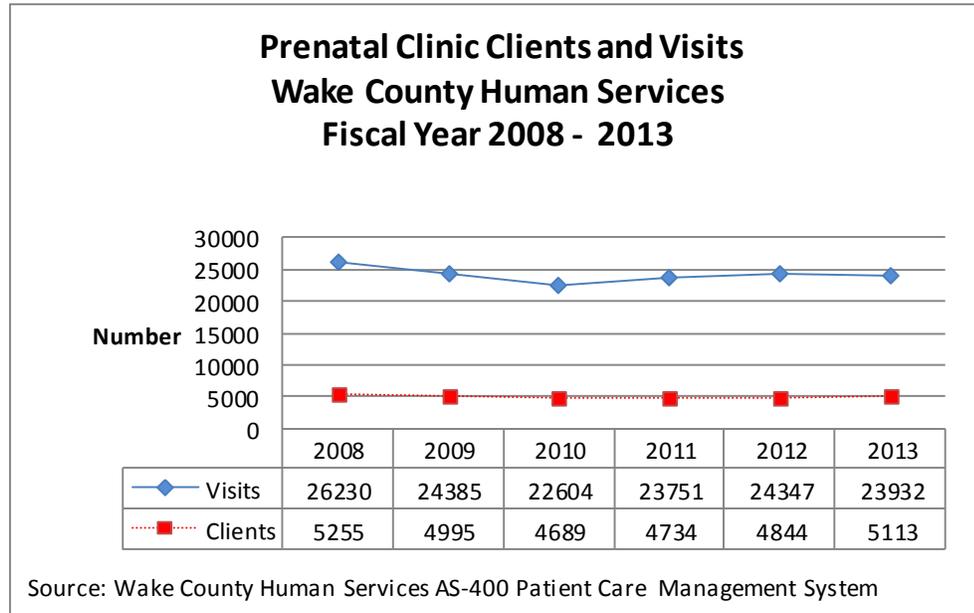


Health Services: Prenatal Care

The Prenatal Clinic (Clinic G) provides comprehensive health care to uninsured and underinsured pregnant residents. Services include: prenatal care and education for pregnant women, Pap smears and breast exams, contraceptive counseling and information, fetal assessment, WIC and social worker services. Cost is based on income and family size. Medicaid is accepted.

In FY 2013, this clinic received 23,932 visits and provided services to over 5,000 clients (see Figure 6).

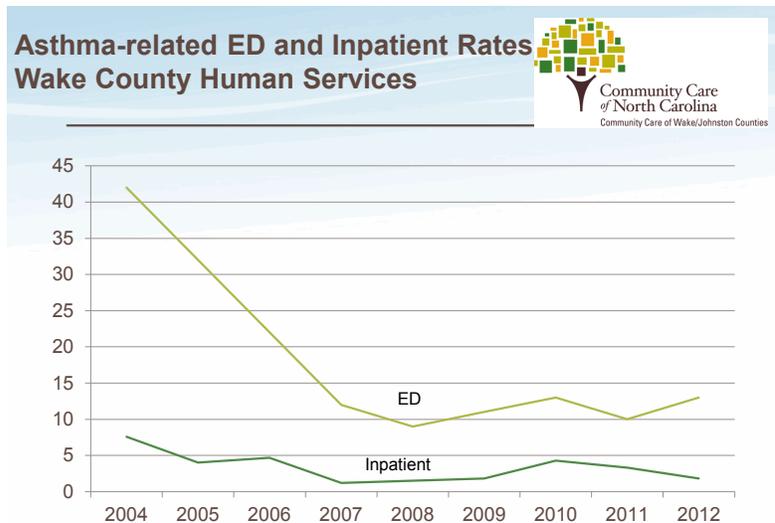
Figure 6



Health Issue: Asthma

During the early part of the last decade, emergency department visits due to asthma-related illness were high. However, a dramatic decrease in the rate of asthma-related emergency department visits for WCHS clients was observed [decreasing over 50% from a rate of over thirty (2003 to 2005) to below 15 (2007 to 2012)]. In addition a sustained decrease in inpatient hospital rates have been achieved (see Figure 7).

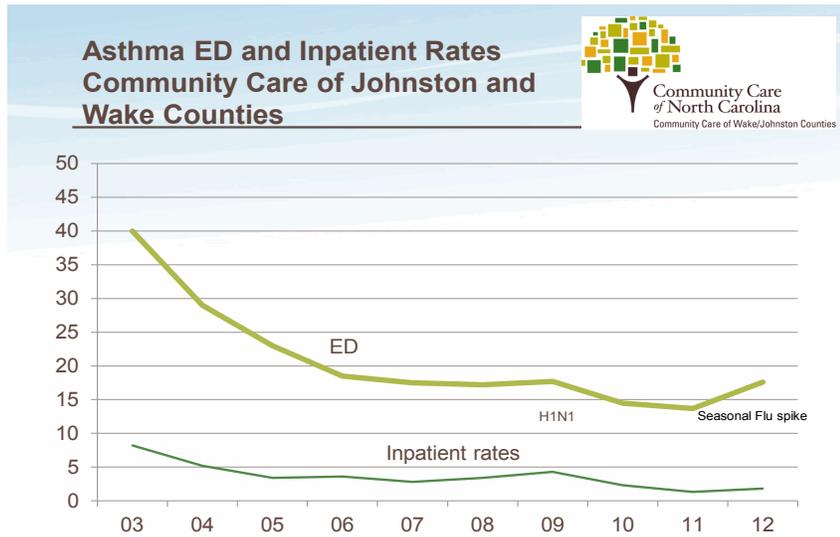
Figure 7



Source: Community Care of Wake And Johnston Counties

The National Association of Counties awarded a 2013 Achievement Award in Health to Community Care of Wake and Johnston Counties (CCWJC), Wake County Human Services and Wake County Environmental Services for their collaborative work on the Environmental Asthma Trigger Home Assessment Program. Strong evidence supports the effectiveness of home-based, multi-trigger, multi-component interventions addressing environmental asthma triggers(2). As a result, asthma-related emergency department and hospitalizations have decreased substantially for the CCWJC network, that includes Wake County residents.

Figure 8



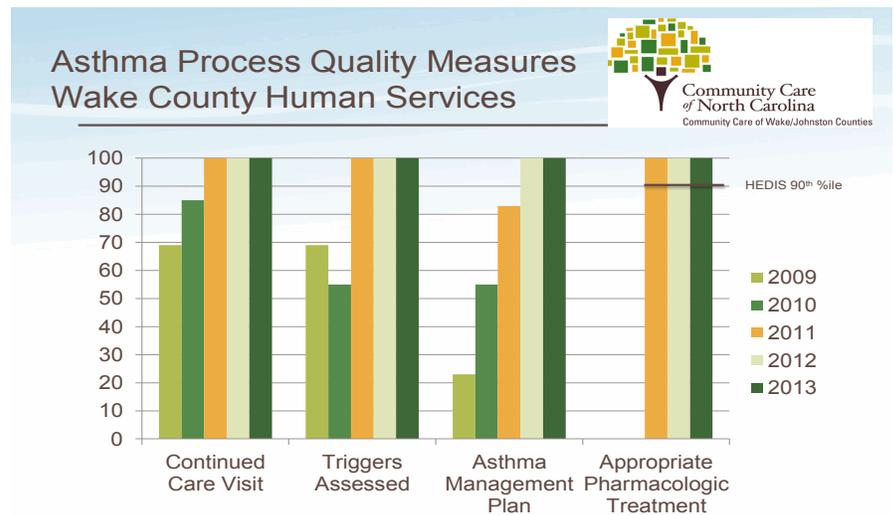
Source: Community Care of Wake And Johnston Counties

Health Services: Asthma Care

In addition, the Wake County Human Services Child Health Clinics, in collaboration with CCWJC and Wake AHEC, have worked to improve the quality of asthma care for the patient population utilizing WCHS as their primary care medical home. Figure 9 depicts the high level of performance in standards of care consistent with national best practice guidelines. These include:

- Continued care visits with assessment of symptoms
- Assessment of triggers that worsen asthma symptoms
- Receiving asthma action plans
- Receiving appropriate pharmacological therapy

Figure 9



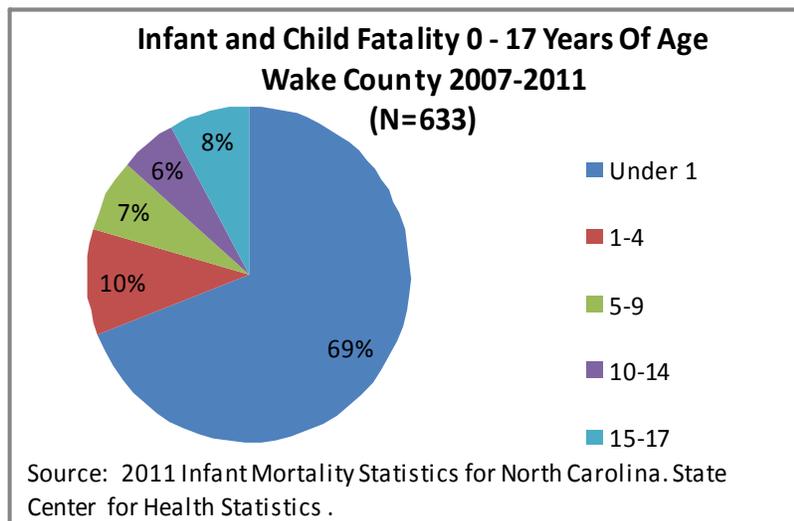
For more information about Community Care of Johnston and Wake Counties visit www.ccwjc.com.

Source: Community Care of Wake And Johnston Counties

Health Issue: Childhood Injury

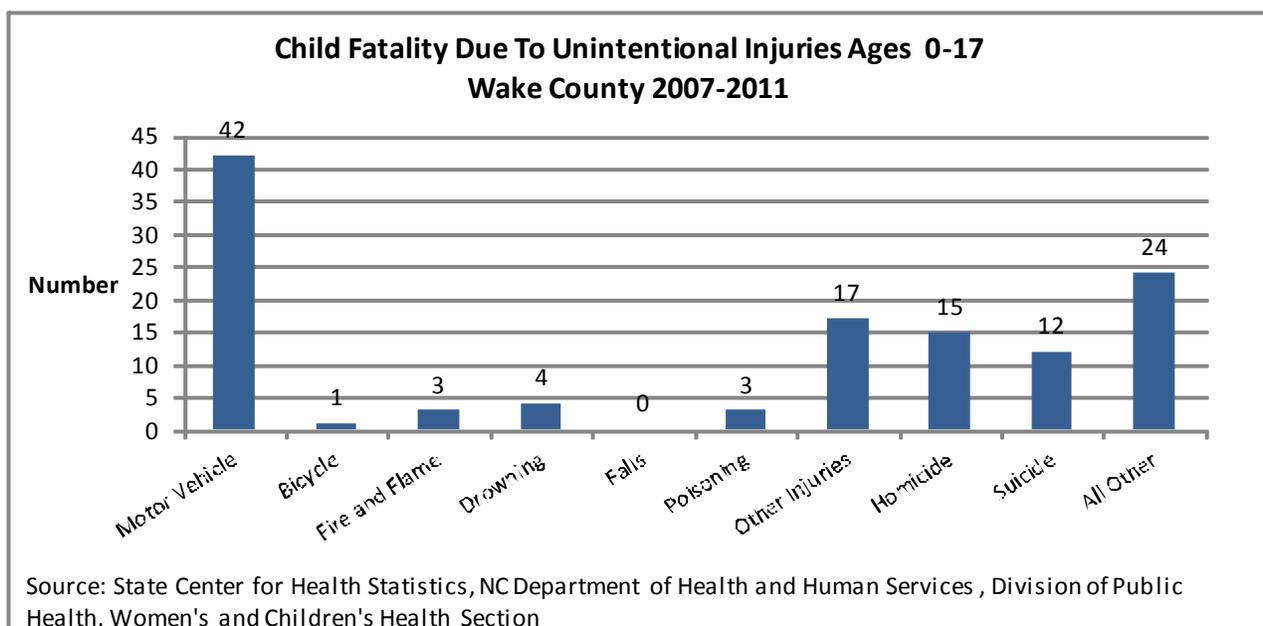
From 2007-2011, 69% of the infant and child fatalities in Wake County occurred for those under one year of age.

Figure 10



The most frequent cause of death from unintentional injury in Wake County among children 0-17 years of age is motor vehicle accidents (see Figure 11). Wake County Human Services offers parents and caregivers hands-on help from a Certified Child Passenger Safety Technician to learn how to install their child car seat. Car seat safety education is also included in programs such as child health, prenatal and home visiting programs. Wake participates in the Child Fatality Task Force, a legislative study commission which makes recommendations to the General Assembly and Governor for their consideration. Task Force recommendations that were passed by legislators and approved as laws by the Governor over the past 20 years have contributed to an estimated 9,000 more children living to adulthood (3).

Figure 11



Health Issue: Obesity

Obesity among Wake County youth remains a concern because it can lead to a number of chronic diseases. Contributing to this disease are poor nutrition and lack of exercise.

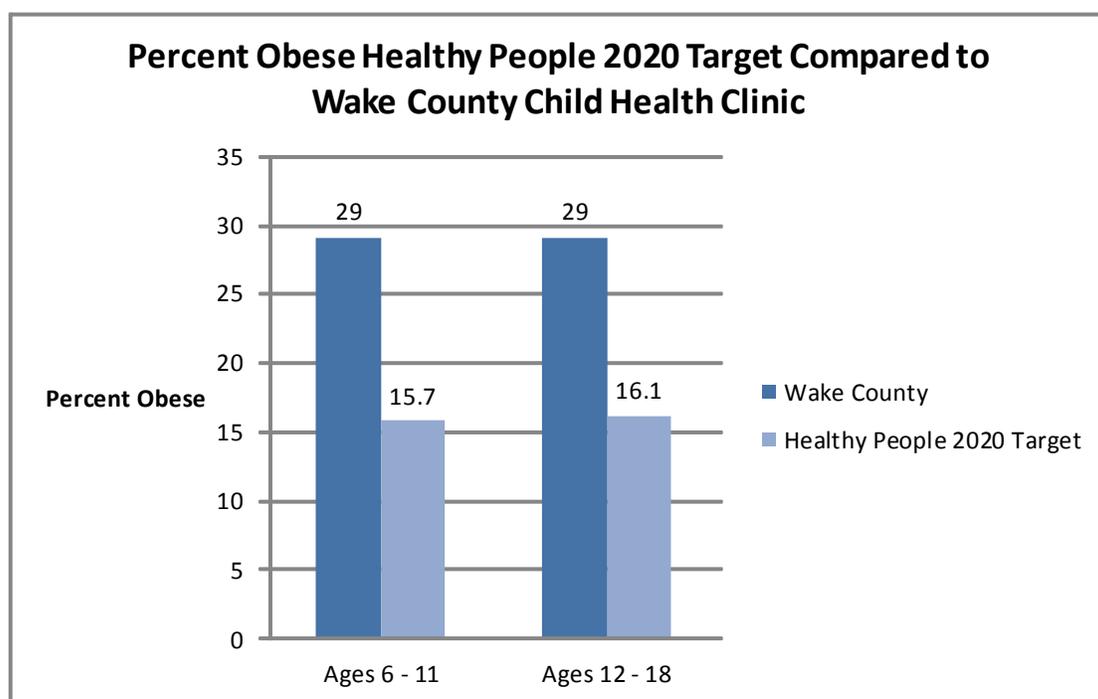
Availability of fast food restaurants is correlated with a high prevalence of overweight, obesity and premature death. Wake County has a higher percentage of fast food restaurants (51%) compared to Mecklenburg (46%) and North Carolina overall (49%). All of these are considerably higher than the national benchmark of 27% (4).

Additionally the availability of recreational facilities* can influence individuals' and communities' choices to engage in physical activity. Wake County is just below the national benchmark for access to recreational facilities (15 per 100,000) while Mecklenburg County meets the bench mark (16 per 100,000) and North Carolina (11 per 100,000) does not (4).

The Nutrition and Weight Status Healthy People 2020 target for children ages 6 - 12 years who meet the definition of obese (BMI at or above the sex-and age-specific 95th percentile) is 15.7%. Unfortunately, 29% of children ages 6-11 attending the Wake County Health Clinics are obese, 13% higher than the 2020 target. Similarly, the same is observed for youth age 12 to 19 years (see Figure 12).

Good nutrition and a healthy body weight are important for the growth and development of children.

Figure 12



Source: Wake County Human Services AS-400 Patient Care Management System (calendar year 2012) and Healthy People 2020.

*fitness and recreational sports facilities featuring exercise and other active physical fitness conditioning or recreational sports activities such as swimming, skating, or racquet sports.

Health Services: Nutrition

A healthy diet helps reduce the risk of many health conditions including:

- Overweight and obesity
- Malnutrition
- Iron deficiency anemia
- High blood pressure
- Type 2 diabetes
- Oral disease
- Constipation

Expanded Food and Nutrition Education Program (EFNEP)

EFNEP serves families with limited resources and young children, school-age youth, and pregnant teens through a series of lessons offered by paraprofessionals and volunteers, many of whom are part of the population being served. Wake County participates in the EFNEP through North Carolina Cooperative Extension as a part of university outreach at NC State University and NC A & T State University.

Using “hands-on” experiences, participants are taught to make wise choices with their food dollars, improve eating habits, and practice food safety principles. Marketing particularly affects children’s food choices. Children, as well as their families, are involved in interventions that support behavior changes leading to a healthier diet. Figures 13 and 14 show the behavioral changes among Wake County adults and youth participating in this program.

Figure 13

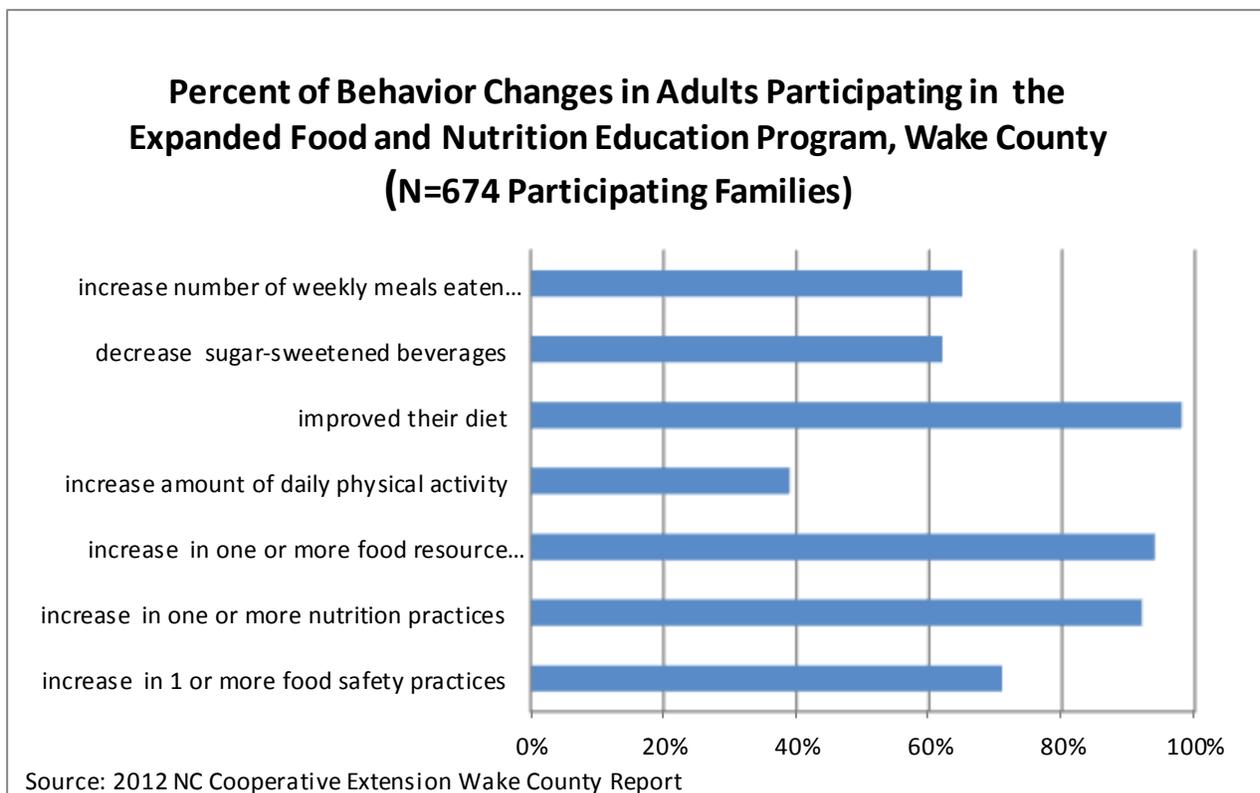
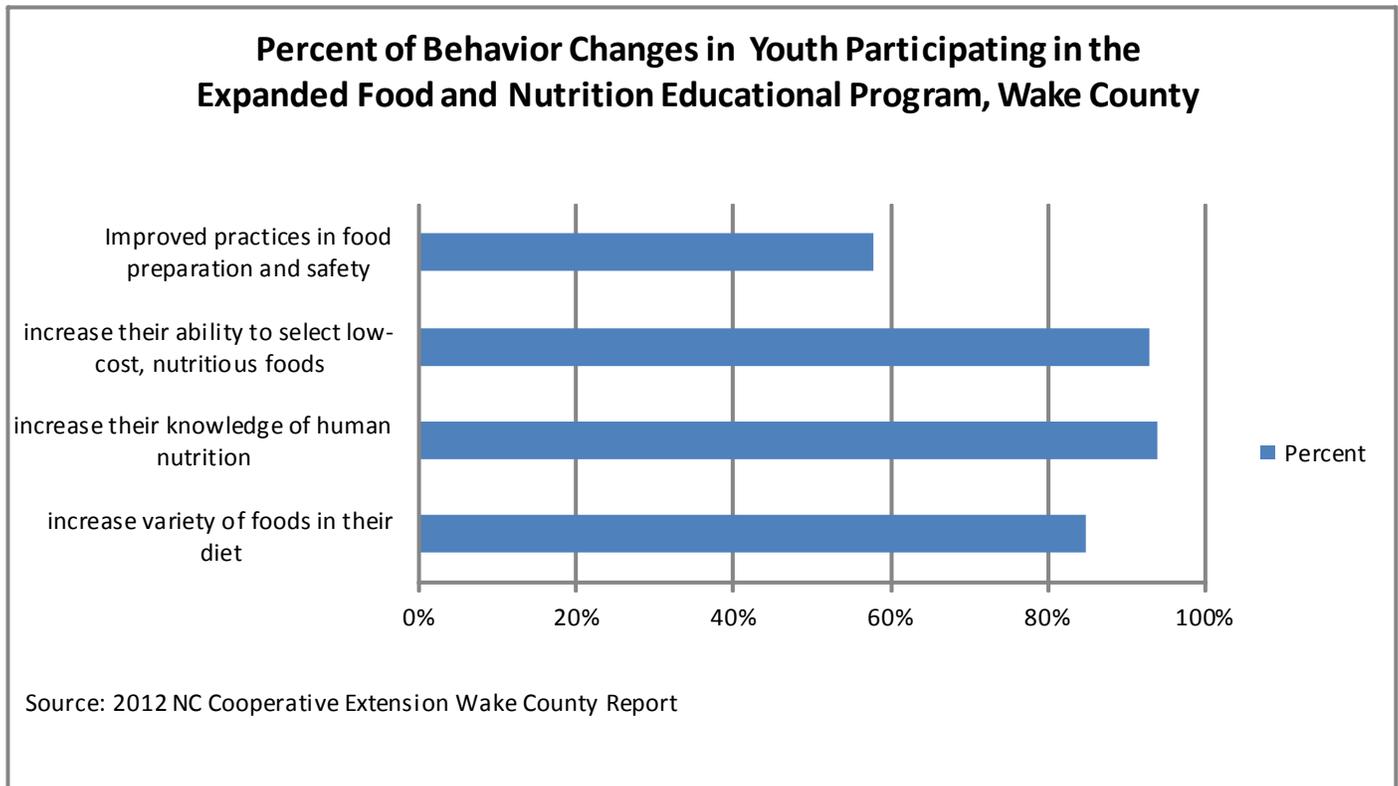


Figure 14



Club CHOICE

Club Choice Plus is a six-week series of exercise and health education classes for English and Spanish speaking families. The goal is to facilitate wellness, self-sufficiency and personal empowerment for choosing healthy options in a challenging economy. Through a collaborative effort of Wake County Human Services, the University of North Carolina and Wake County 4-H Cooperative Extension, Zumba exercise classes and an educational curriculum encourage weight loss and a healthy lifestyle. Children participate in a separate exercise and educational component.

The program is promoted through:

- Distribution of flyers at multiple Human Services sites
- Clinic staff referrals
- An information and pre-registration booth at the Human Services Sunnybrook location
- Information on the Wake County Government website (WakeGOV.com)

In 2011, 97 women and children participated in the program; 131 participated in 2012 and for the first class of 2013, 76 participated. There is continued interest from women to join the classes. However due to safety, limited space and staff resources, the classes are at capacity. With the current number enrolled and anticipation of offering this program in the fall, more women and children will participate than in previous years. Women in the fall of 2012 lost an average of 3.2 pounds from the beginning of a six-week series to the end and 2.6 pounds in the spring of 2013.

In the spring of 2013, questionnaires given before and after the classes measured changes in behaviors in the group of thirty-six women. While there was a trend toward eating the recommended number of fruits and vegetables, the group consumed too many fruits compared to the number of vegetables. Other significant changes included:

- Decreasing consumption of sweetened beverages
- Changing to low fat or skim milk (of those who drank milk)
- Increase in eating healthier snacks
- Decrease in baking cookies, cake or pies at home
- Increase in using artificial sweeteners

For more information about Club CHOICE, visit www.wakegov.com.

Health Issue: Oral Health

Early and periodic, dental screening, and treatment services promote overall wellness and prevent disability. Over 10% of kindergarten and second grade students screened by the Wake County School Health dental hygienists are reported to have obvious untreated dental disease, a major contributor to missed school days. Few private dental practices in Wake County accept Medicaid or provide services to clients with limited English proficiency.

Health Services: Dental Health

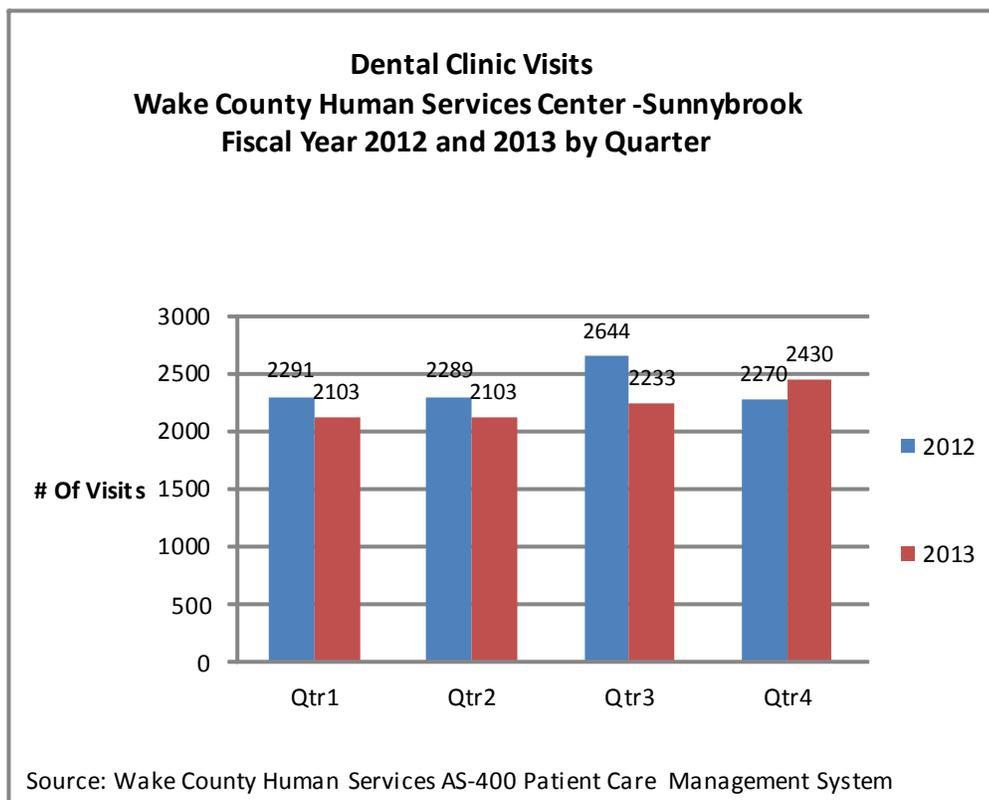
The Human Services Dental Clinic provides comprehensive preventive and treatment dental care to uninsured and underinsured children under the age of 19 and pregnant women. Additional services include outreach, screening, referral, follow-up and education.

In FY 2012, the clinic had 9494 client visits and provided 30,689 procedures and in FY 2013, it had 8868 client visits and provided 30,215 procedures.

The decrease in visits to the dental clinic from 2012 to 2013 can be attributed to dental staff vacancies.

Additionally introduction of a new patient management system and electronic health records in the first quarter of FY 2013, necessarily reduced clinic appointments to master the new technology.

Figure 15



Health Services: Pharmacy

Prescriptions are filled at discounted prices for clients receiving Human Services clinical services. Medicaid, NC Health Choice, the AIDS Drug Assistance Program (ADAP) and Project Access are accepted.

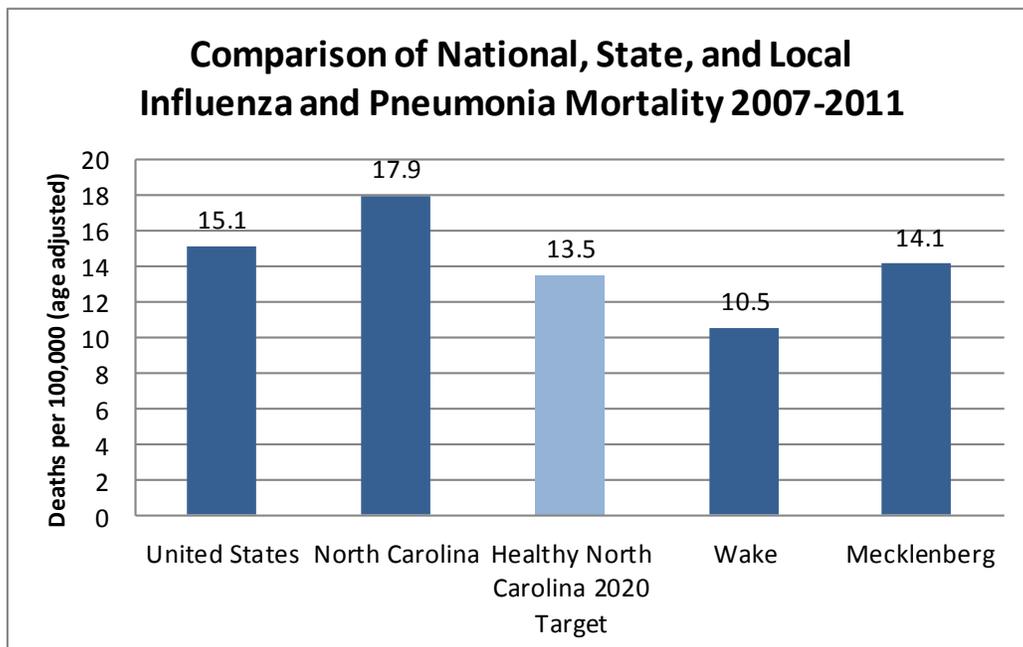
The pharmacy provided 72,000 prescriptions this past fiscal year, and served 12,810 people.

The pharmacy received \$10,500,000 in donated medications from pharmaceutical companies and provided these to 3500 uninsured clients. These donated medications included medications for children with asthma, adults with mental illness and family planning medications.

Health Issue: Vaccine Preventable Diseases

Pneumonia and influenza were the eighth leading cause of death among North Carolinians in 2008, causing approximately 1,750 deaths (5). Individuals aged more than 65 years, those with chronic health conditions, pregnant women, and young children are at higher risk of developing complications such as pneumonia from the flu.

Figure 16



Source: North Carolina Department of Health and Human Services, Division of Public Health/ State Center for Health Statistics

Health Services: Immunizations

Wake County Human Services provides immunization services to protect against flu, pneumonia and other vaccine preventable diseases at 11 clinic locations and in the community for special events and emergency response. In recent years, Wake County suffered fewer deaths from influenza and pneumonia than the state and the nation (see Figure 16).

According to the North Carolina Immunization Registry, in fiscal year 2013:

- 48,785 total vaccine doses were provided to 22,131 patients
 - ◆ 91% of all doses were provided in the health clinics setting, including the Regional Centers
 - ◆ 9% of all doses were provided as outreach activities or special events
- Of the total vaccine doses provided:
 - ◆ 10,995 doses of flu vaccine were administered during the 2012/13 flu season
 - ◆ 8,745 doses of Tdap (tetanus, diphtheria, and pertussis) vaccine were administered in response to and prevention of pertussis outbreaks.

Health Services: Child Health

The primary purpose of child health services is to develop and promote programs and services that protect and enhance the health and well being of children and families. It primarily focuses on ensuring health services for children, including the following:

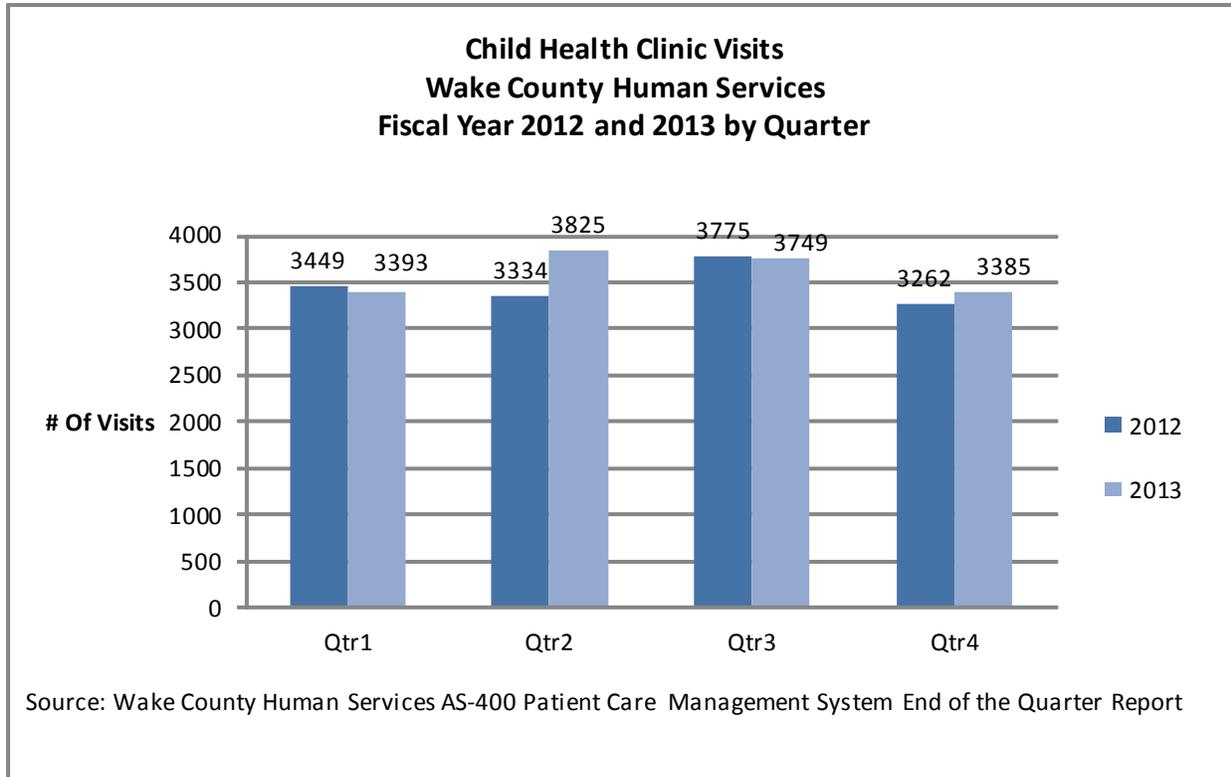
- Parenting education
- Nutrition
- Well child care
- School health
- Genetic services
- Newborn screening
- Child care health consultation
- Developmental screening
- Linkages with medical homes
- Screening and treatment clinics
- Health Check/NC Health Choice

The Child Health program provides local health departments resources to provide or assure provision of preventive health care services for children in their service area in order to:

- Reduce mortality and morbidity among children and youth resulting from communicable disease
- Reduce injuries (intentional and unintentional), and other preventable conditions
- Promote healthy behaviors
- Support optimal physical, social and emotional health of children and youth

Child Health provides comprehensive health care (prevention and treatment) to uninsured and underinsured children from birth to age 21. Costs are based on family income. Medicaid and NC Health Choice are accepted. In fiscal year 2012, there were 13,820 visits and 14,352 in 2013 (see Figure 17).

Figure 17



New Horizons for Clinical Data Management: Electronic Health Records

The Health Information Technology for Economic and Clinical Health (HITECH) is part of the American Recovery and Reinvestment Act (Public Law 111-5-Feb 17, 2009). The HITECH Act supports a meaningful use of electronic health records (HER) effort led by Centers for Medicare & Medicaid Services (CMS).

According to The Office of the National Coordinator for Health Information Technology, meaningful use is using certified EHR technology to:

- Improve quality, safety, efficiency, and reduce health disparities
- Engage patients and family
- Improve care coordination, population and public health
- Maintain privacy and security of patient health information

Ultimately, it is hoped that meaningful use compliance will result in:

- Better clinical outcomes
- Improved population health outcomes
- Increased transparency and efficiency
- Empowered individuals
- More robust research data on health systems

The Wake County Public Health Automation Project is on schedule to meet meaningful use requirements before the 2015 deadline. If the requirements are not met, there will be a payment adjustment in Medicaid and Medicare billing. Payment reduction starts at 1% in 2015 and increases each year to a maximum of 5%. Wake County Human Services will receive incentive payments totaling \$63,750 per provider over 6 years for meeting meaningful use requirements.

Human Services is currently replacing the twenty-one year old Practice Management System (PCMS) that runs the business side of clinic services (i.e. scheduling patient appointments, registration, billing, and monthly reports) with a new automated system. The timeline for this implementation is outlined in Table 2.

Table 2

<u>Mar-13</u>	<u>Apr-13</u>	<u>May-13</u>	<u>Jun-13</u>	<u>Jul-13</u>	<u>Aug-13</u>	<u>Sep-13</u>	<u>Oct-13</u>
Server Installation (Test and Production)							
Centricity Configuration							
		Data Conversion					
	System Setup and Configuration						
			Interface Development				
				Report Development and Testing			
				System Testing			
					Clearinghouse Setup		
					End User Training		
						Go Live	
							Post Live

In the future, an individual client EHR that shares information among multiple facilities and agencies will be in place. The WCHS Dental practice management system, successfully implemented on January 30, 2013, will interface with the clinics future automated system. The new system will also interface with the Wake County Pharmacy, Lab Corp, and Wake Med. In addition, this project will work toward meeting the Centers for Medicare and Medicaid Service (CMS) deadline of October 1, 2014 for all insurance and health care providers to convert from ICD-9 to ICD-10 (International Classification for Diseases). The new systems will provide Wake County’s Public Health Clinics with a modern, robust system that meets current and future health information needs.

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