

Public Health



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Wake County Human Services Public Health Quarterly Report April–June 2015

Special Edition:
Communicable Diseases 2010-2014

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Introduction

Wake County Human Services (WCHS), an accredited health department, strives to perform the three core Public Health functions of assessment, policy development and assurance and to deliver the 10 public health essential services (Figure 1). Reports are provided on a quarterly basis about health and safety trends for Wake County residents, providers, policy makers and the community to better inform decision making.

These reports help fulfill public health essential services:

- Number 1: Monitor health status to identify community health problems and
- Number 3: Inform, educate, and empower people about health issues

This report also fulfills in part North Carolina Public Health Accreditation requirements including :

- Analysis and tracking of reportable events occurring in the community and reporting unusual occurrences to the NC Division of Public Health and local board of health (Benchmark activity 2.4)
- Provision of reports on the health of the community to the local board of health (Benchmark activity 38.1)

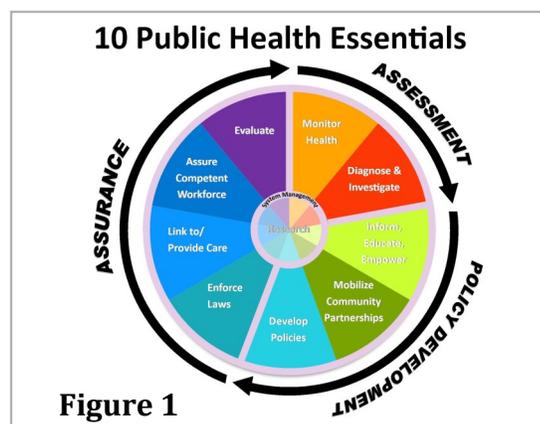


Figure 1

Surveillance for Reportable Communicable Diseases in Wake County

Communicable diseases are illnesses caused by infectious agents (bacteria, viruses, parasites, fungi and prions) or their toxins that are transmitted from an infected person, animal, plant or from the environment. Because communicable diseases can have so much impact on populations, they are tracked and the information analyzed (called surveillance) so that measures can be put in place for protecting the public's health. Certain communicable diseases are required by law to be reported to local health departments by:

- physicians
- school administrators
- child care center operators
- medical facilities
- operators of restaurants and other food or drink establishments and
- persons in charge of laboratories (G.S. § 130A-135 through 130A-139).

There are 72 reportable diseases and conditions specified in the N.C. Administrative Code rule 10A NCAC 41A .0101 (<http://epi.publichealth.nc.gov/cd/index.html>).

After initial notification about a case or cases of a communicable disease, an investigation begins to collect details such as demographic, clinical, and epidemiological information. A case, meeting the reporting requirements in the standardized case definitions, is reported electronically to the N.C. Division of Public Health via the North Carolina Electronic Disease Surveillance System (NC EDSS) and then to the Centers for Disease Control and Prevention's (CDC) National Notifiable Diseases Surveillance System.

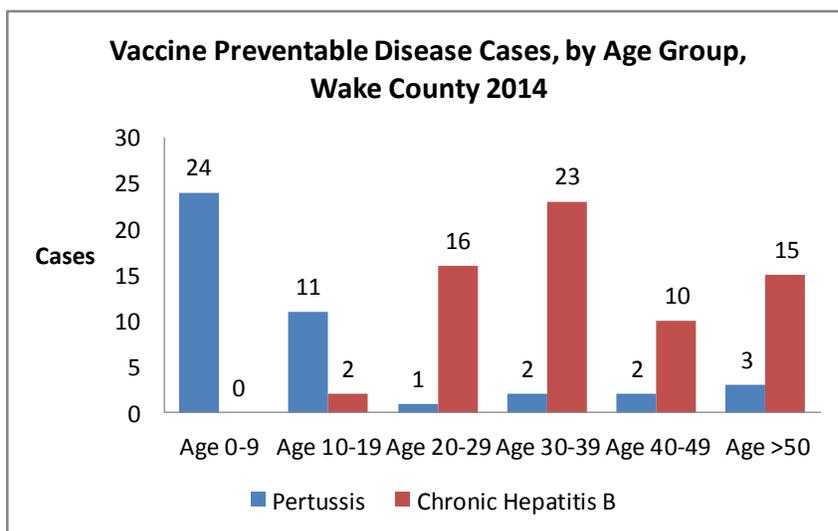
This report focuses on all diseases that have been reported in Wake County from 2010 through 2014 along with other information about selected communicable diseases of public health significance for Wake County. For a list of all reportable communicable diseases see Table 4 (pages 18-21).

Vaccine Preventable Diseases

Wake County's rate of pertussis (whooping cough) decreased during 2013. This was likely a result of a vaccination campaign to immunize those at risk and those who care for infants that followed a nationwide outbreak of pertussis in 2012. However, the case rate for pertussis began to rise again in 2014 (4.3 per 100,000 population) compared to 2013 (2.3 per 100,000 population) (Table 4, page 20). During 2014, over half of the cases were in children 0-9 years of age (Figure 2) and 67% of cases of affected the white population (Figure 3).

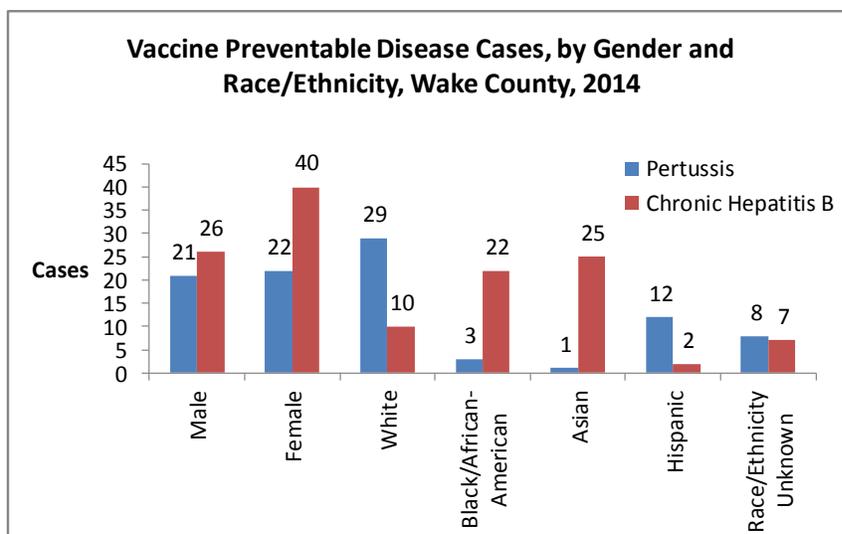
Reported cases of chronic hepatitis B have decreased steadily from a high of 21.7 per 100,000 population in 2011 to a low of 6.6 per 100,000 population in 2014 (Table 4, page 19). During 2014, more than half of the cases were in the 20-39 age group (Figure 2) and 1.5 times as many cases were female compared to male cases (Figure 3). Seventy-one percent of all cases were among African Americans and Asians (Figure 3).

Figure 2



Data Source: North Carolina Electronic Disease Surveillance System, 4/28/15

Figure 3

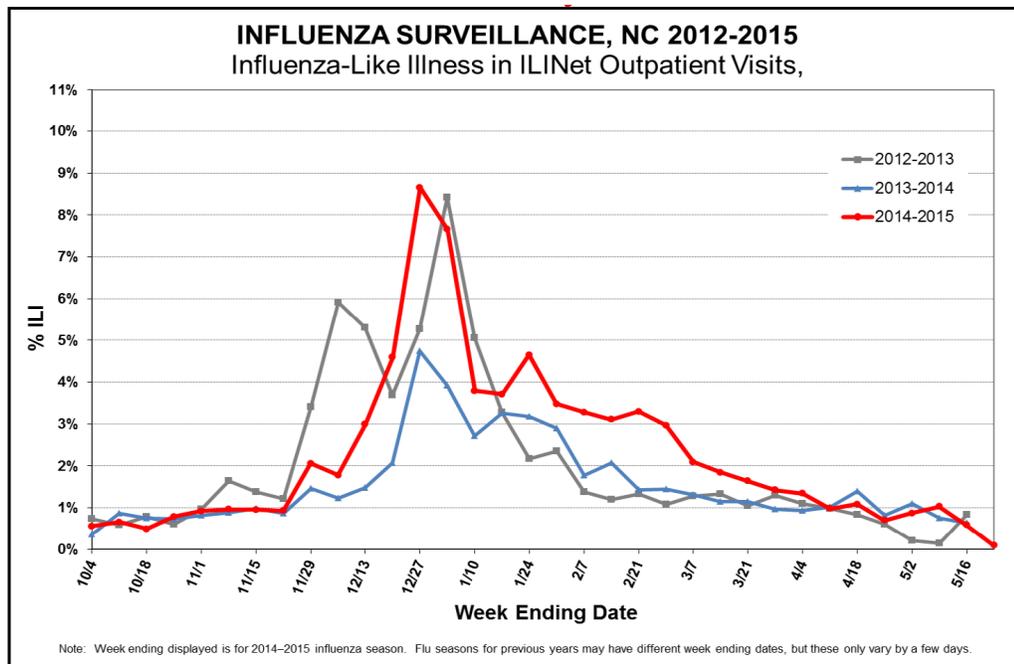


Data Source: North Carolina Electronic Disease Surveillance System, 4/28/15

Influenza

No novel influenza viruses have been reported since the H1N1 outbreak in 2009 (Table 4, page 19). Because of the mismatched vaccine against the predominately circulating H3N2 viruses, the 2014-2015 flu season was particularly severe. In North Carolina, flu peaked during the December holidays and the percent of influenza-like-illness (ILI) in outpatient settings was higher than the preceding two flu seasons (Figure 4).

Figure 4



Data Source: NC Division of Public Health <http://flu.nc.gov/data/documents/flu1415.pdf>

Over 200 deaths were attributed to seasonal influenza disease in North Carolina, twice the number reported during the 2013-2014 flu season. As of 5/20/15, 17 deaths were reported in Wake County.

Wake County Human Services provided seasonal flu immunization to 8,525 children and adults at clinics around the County.

A flu immunization mandate was adopted in 2014 for Wake County Employees working in Emergency Medical Services (EMS) as well as the Health Clinics and Public Health Divisions of Wake County Human Services.

Flu Doses Administered by WCHS September 15, 2014 to March 31, 2015

- Total: 8,525
- 5,095 (60%) to children ages 6 months through 18 years
- 3,430 (40%) to adults 19 years and older

Changes to Immunization Laws in North Carolina

There will be changes and updates to the NC Immunization Law that will become effective on July 1, 2015. They include:

- Changes to school entry requirements to include a booster dose of polio vaccine on or after the 4th birthday and a requirement for a 2nd dose of varicella vaccine

- A new requirement for children born on or after July 1, 2015 to receive pneumococcal conjugate vaccine
- A requirement that rising 7th grade students have a dose of Tdap vaccine if they have not already had one (previously a 6th grade requirement)
- A new requirement for 7th grade students to receive a dose of meningococcal conjugate vaccine

Effective August 2020, high school students 17 years of age or entering their senior year of high school (whichever comes first) will be required to have a booster dose of meningococcal conjugate vaccine.



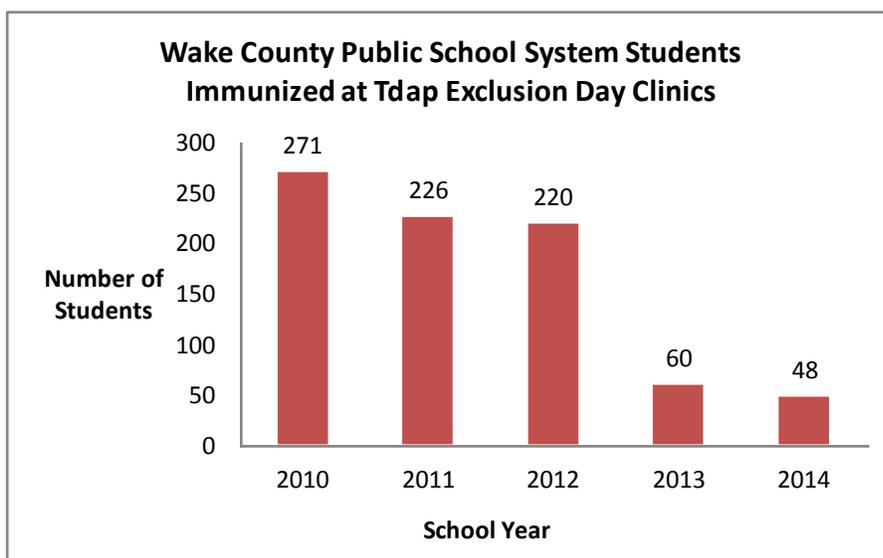
WCHS is providing information and resources in English and Spanish to medical providers, public and private schools, childcare centers and parents regarding the upcoming changes. The Immunization Tracking Team has provided training, developed and distributed information in a host of venues, sent information to the media and updated their website to encourage early compliance with the upcoming changes.

Information table at “New Year, New Law” training held in February, 2015.

Tdap Immunization Project

The 6th grade Tdap Immunization Project at WCHS plans and executes targeted Tdap immunization clinics to reduce the numbers of students excluded from middle school for immunization non-compliance. Exclusion Day clinics are a resource for school administrators to refer students that risk exclusion. The success of the project is measured through the reduction in numbers of students being referred for services on Exclusion Day (Figure 5).

Figure 5



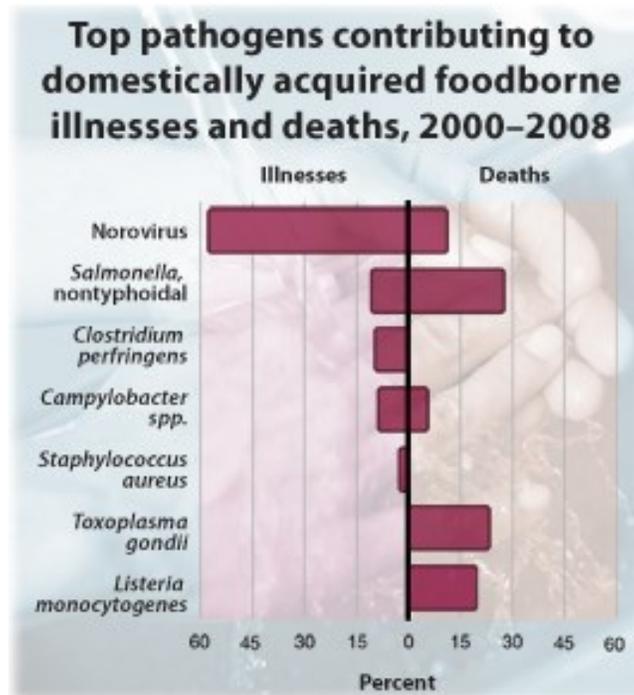
Data Source: “NC School Summary Report of the Immunization Status of 6th Grade Students”, NC DHHS

Foodborne Diseases

The Centers for Disease Control and Prevention (CDC) estimates that each year roughly 1 in 6 people in the US (or 48 million people) get sick, 128,000 are hospitalized, and 3,000 die of foodborne diseases. While not all agents of foodborne disease are known, among the 31 known foodborne pathogens:

- Nontyphoidal Salmonella, Toxoplasma, Listeria, and norovirus caused the most deaths
- Nontyphoidal Salmonella, norovirus, Campylobacter, and Toxoplasma caused the most hospitalizations and
- Norovirus caused the most illnesses. Although norovirus usually causes a mild illness, norovirus is a leading cause of foodborne deaths because it affects so many people (Figure 6).

Figure 6

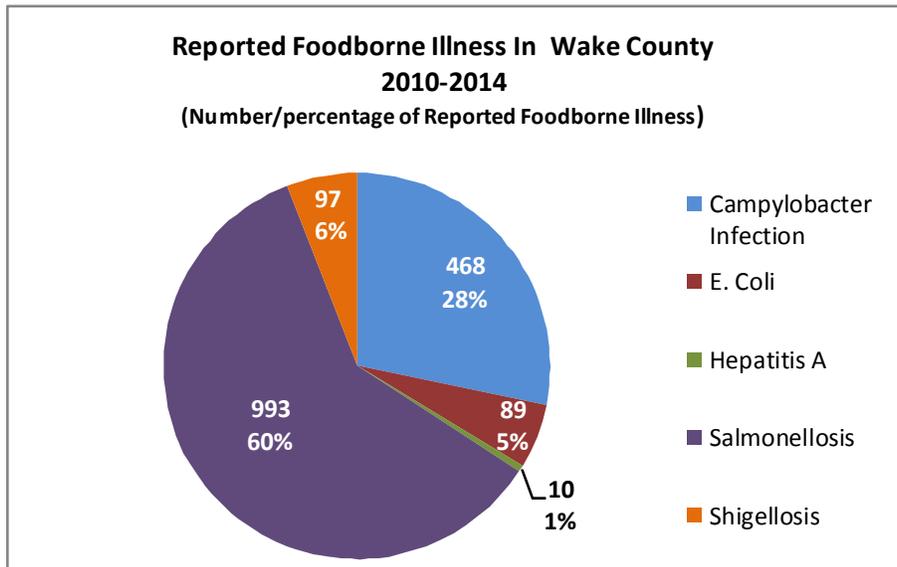


Source: CDC, <http://www.cdc.gov/dsFoodborneEstimates/>, 5-17-2015

In Wake County, from 2010 through 2014, *Salmonella spp* non-typhoidal and *Campylobacter spp* accounted for 88% of all reported food-borne diseases (Figure 7). While the rate of Salmonella has generally decreased (28.8 per 100,000 population in 2010 to 18.2 per 100,000 in 2014), the rate of Campylobacter has increased over the past 4 years (5.3 per 100,000 population in 2011 to 12.5 per 100,000 population in 2014) (Table 4, pages 18 & 20).

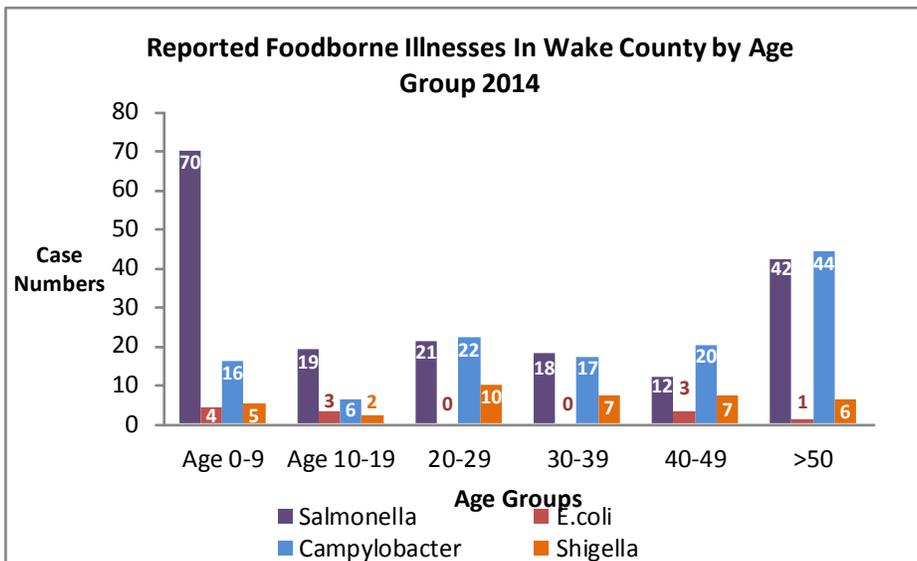
During 2014, more than half of the cases of Salmonellosis reported were in children ages 0-9 and older adults (> 50 years of age) and in the white population (Figures 8 and 9). More than one-third of the cases of Campylobacter were reported in older adults and whites during 2014 (Figures 8 and 9). Laboratory testing to confirm the cause of some reportable diseases, for example *Clostridium perfringens* food poisoning, is not routinely available except under special circumstances during outbreaks; therefore these numbers are likely underreported.

Figure 7



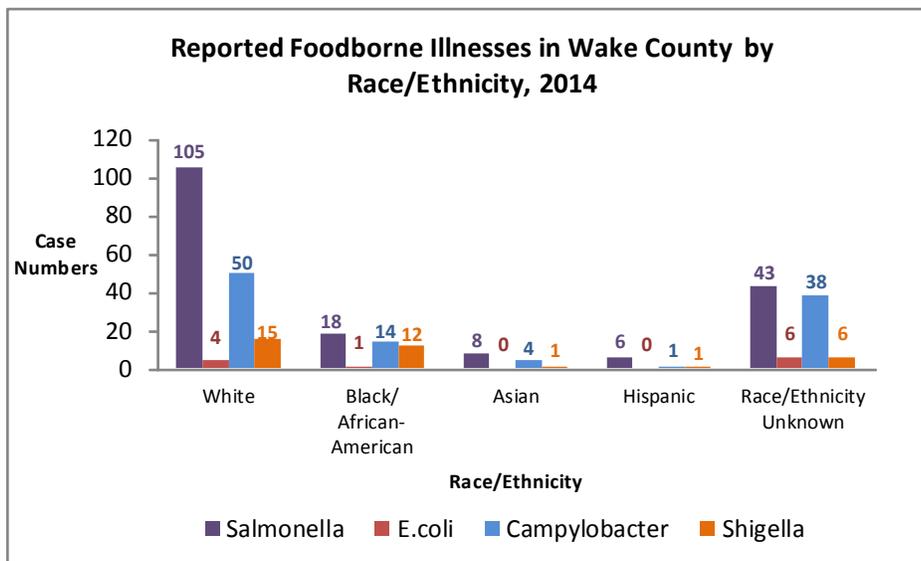
Data Source: North Carolina Electronic Disease Surveillance System, 4/28/15

Figure 8



Data Source: North Carolina Electronic Disease Surveillance System, 4/28/15

Figure 9



Data Source: North Carolina Electronic Disease Surveillance System, 4/28/15

In addition, cases of some food-borne diseases caused by other microorganisms are not required to be reported under NC communicable disease law. However, all foodborne outbreaks are required to be reported to local health departments and the NC Division of Public Health. During 2014, suspect norovirus outbreaks were predominately associated with long term care and other facilities. The sources (such as person to person, environmental or foodborne) of the outbreaks were not determined. However, during early 2015, clusters of norovirus illness were associated with attending 7 different events throughout Wake County where food was served.

Food Safety

In 2014, Environmental Services inspected, re-inspected or verified nearly 6000 establishments that serve or sell food (Table 1). Environmental Services also provided 1286 hours of training, including certified manager training (ServSafe) for nearly 100 managers. Topics included food safety risks associated with contamination, employee hygiene, holding temperatures, approved food sources and final cook temperatures. Environmental Services staff also reached out to 135 food workers regarding rule updates and food safety risk factors as well as providing outreach through events, fairs and the media.

Table1

Inspections by Wake County Environmental Services, 2014			
Type	Activities*	Verifications **	Totals
Bed and Breakfast Home	1		1
Bed and Breakfast Inn	3		3
Elderly Nutrition Sites (catered)	21	1	22
Food Stand	852	101	953
Hospitals	4		4
Institutional Food Service	80	11	91
Limited Food Service	14	1	15
Meat Market	207	16	223
Mobile Food Units	63	15	78
Private School Lunchrooms	29	2	31
Public School Lunchrooms	399	33	432
Pushcarts (carts that sell only hot dogs and can be moved by one person)	65	2	67
Restaurants	3426	588	4014
Grand Total	5164	770	5934
*Activities—Inspections and re-inspections **Verifications—Follow up visits for critical violations observed at inspections/re-inspections Additional information about types of health inspections can be found: http://www.wakegov.com/food/healthinspections/facilities/Pages/default.aspx			

Data Source: Wake County Environmental Services Database 4/15/15.

Sexually Transmitted Diseases

In Wake County during 2014, the most commonly reported sexually transmitted diseases were chlamydia and gonorrhea followed by HIV, and non-gonococcal urethritis.

The rates per 100,000 population for both chlamydia (from 534 in 2011 to 438.6 in 2014) and gonorrhea (from 152.9 in 2011 to 121.5 in 2014) have declined since 2011. However, while the number of cases have remained high compared to peer counties over the last 5 years, Wake County's rates per 100,000 population are lower (Table 2).

Healthy North Carolina 2020 Sexually Transmitted Disease Objectives

- Reduce the percentage of positive results among individuals aged 15-24 years tested for chlamydia (Objective 2)
- Reduce the rate of new HIV infection diagnoses (per 100,000 population) (Objective3)

<http://publichealth.nc.gov/hnc2020/docs/HNC2020-FINAL-March-revised.pdf>

Table 2

CHLAMYDIA, GONORRHEA, EARLY SYPHILIS⁺, HIV AND AIDS CASE COUNTS AND RATES NC COMPARED TO NC'S SIX LARGEST COUNTIES (BY POPULATION) 2010—2014

CHLAMYDIA										
County	2010		2011		2012		2013		2014	
	Cases	Rate*								
Cumberland	1,730	540.3	3,593	1,111	3,589	1,107	3,610	1,114	3,043	932.5
Durham	1,642	611.7	1,923	702.7	2,329	832.9	2,002	715.9	2,057	698.6
Forsyth	2,503	712.3	2,688	758.3	2,704	755	2,508	700.3	2,253	616.8
Guilford	2,398	489.7	5,010	1,011	3,949	788.4	3,748	748.3	3,374	658.8
Mecklenburg	4,627	501.2	7,456	788.8	6,287	648.8	6,087	628.2	6,289	621.1
Wake**	4,531	499.6	4,963	534	4,668	490	4,212	432	4,380	438.6
NC TOTAL	42,167	441.1	53,854	558	50,621	519.1	48,417	496.5	46,594	468.6
GONORRHEA										
County	2010		2011		2012		2013		2014	
	Cases	Rate*								
Cumberland	733	228.9	1,479	457.5	1,170	361.1	1,196	369.1	1,060	324.8
Durham	680	253.3	747	273	820	293.2	758	271.1	727	246.9
Forsyth	774	220.3	854	240.9	712	198.8	742	207.2	874	239.3
Guilford	871	177.9	1,981	399.9	1,473	294.1	1,344	268.3	1,224	239
Mecklenburg	1,516	164.2	2,269	240	1,848	190.7	1,775	183.2	2,248	222
Wake**	1,252	138.1	1,421	152.9	1,342	140.9	1,206	123.7	1,213	121.5
NC TOTAL	14,153	148	17,158	177.8	14,324	146.9	13,665	140.1	14,000	140.8

⁺(Primary, Secondary and Early Latent stages)

*Rate per 100,000 population.

**Case counts from NC EDSS 4/28/15.

Source for 2009-2013 data: <http://epi.publichealth.nc.gov/cd/stds/figures/std13rpt.pdf>, accessed 5/28/15.

Source for 2014 data: <http://epi.publichealth.nc.gov/cd/stds/figures/vol14no4.pdf>, accessed 5/28/15. Rates calculated using 2014 population estimates found at <http://factfinder.census.gov/faces/>

Sexually Transmitted Diseases

Table 2 continued

CHLAMYDIA, GONORRHEA, EARLY SYPHILIS ⁺ , HIV AND AIDS CASE COUNTS AND RATES NC COMPARED TO NC'S SIX LARGEST COUNTIES (BY POPULATION) 2010—2014										
EARLY SYPHILIS										
County	2010		2011		2012		2013		2014	
	Cases	Rate*								
Cumberland	40	12.5	32	9.9	31	9.6	47	14.5	81	24.8
Durham	23	8.6	25	9.1	24	8.6	45	16.1	69	23.4
Forsyth	89	25.3	37	10.4	40	11.2	50	14	50	13.7
Guilford	81	16.5	102	20.6	58	11.6	51	10.2	86	16.8
Mecklenburg	168	18.2	174	18.4	125	12.9	151	15.6	234	23.1
Wake	79	8.7	70	7.5	81	8.5	102	10.7	171	17.1
NC TOTAL	708	7.4	708	7.3	561	5.8	677	6.9	1,065	10.7
HIV										
County	2010		2011		2012		2013		2014	
	Cases	Rate*								
Cumberland	80	25	97	30	69	21.3	87	26.8	98	30
Durham	86	32	68	24.8	71	25.4	75	26.8	82	27.8
Forsyth	59	16.8	80	22.6	54	15.1	69	19.3	65	17.8
Guilford	113	23.1	128	25.8	100	20	123	24.6	114	22.3
Mecklenburg	312	33.8	323	34.2	270	27.9	300	31	362	35.8
Wake**	270	29.8	233	25.1	206	21.6	162	16.6	181	18.1
NC TOTAL	1,463	15.3	1,490	15.4	1,347	13.8	1,525	15.6	1,631	16.4
AIDS										
County	2010		2011		2012		2013		2014	
	Cases	Rate*								
Cumberland	37	11.6	48	14.8	32	9.9	36	11.1	45	13.8
Durham	36	13.4	23	8.4	25	8.9	19	6.8	45	15.3
Forsyth	26	7.4	40	11.3	26	7.3	34	9.5	25	6.8
Guilford	48	9.8	51	10.3	38	7.6	45	9	32	6.2
Mecklenburg	128	13.9	134	14.2	212	21.9	259	26.7	190	18.8
Wake**	111	12.2	87	9.4	61	6.4	76	7.8	66	6.6
NC TOTAL	797	8.3	815	8.4	789	8.1	894	9.2	817	8.2

⁺(Primary, Secondary and Early Latent stages)
 *Rate per 100,000 population.
 **Case counts from NC EDSS 4/28/15.
 Source for 2009-2013 data: <http://epi.publichealth.nc.gov/cd/stds/figures/std13rpt.pdf>, accessed 5/28/15.
 Source for 2014 data: <http://epi.publichealth.nc.gov/cd/stds/figures/vol14no4.pdf>, accessed 5/28/15. Rates calculated using 2014 population estimates found at <http://factfinder.census.gov/faces/>

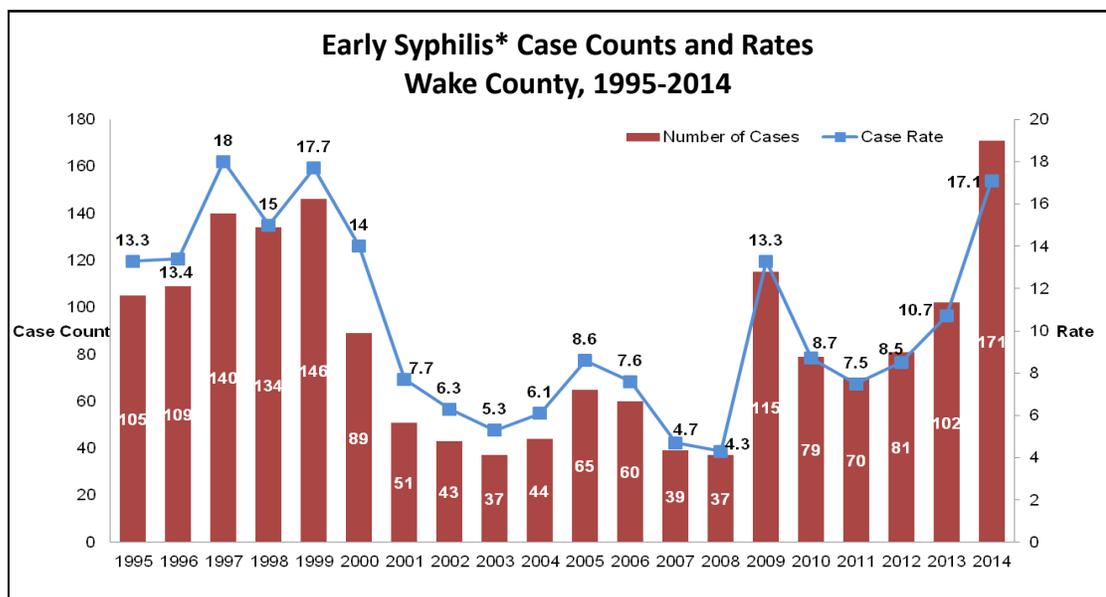
Sexually Transmitted Diseases

Wake County Syphilis Outbreak

The number of residents of Wake County with early syphilis (infected in the last 12 months) is at a 20 year high. Recently, early syphilis case rates more than doubled from 2011 (7.5/100,000) to 2014 (17.1/100,000) with a 68% increase in number of cases from 2013 to 2014 (Figure 10).

From January through March of 2015, 49 cases of early syphilis were reported, a 53% increase in the number of cases (32) reported during the same time in 2014. Other counties are also experiencing a syphilis outbreak with high case numbers and rates (Table 2).

Figure 10

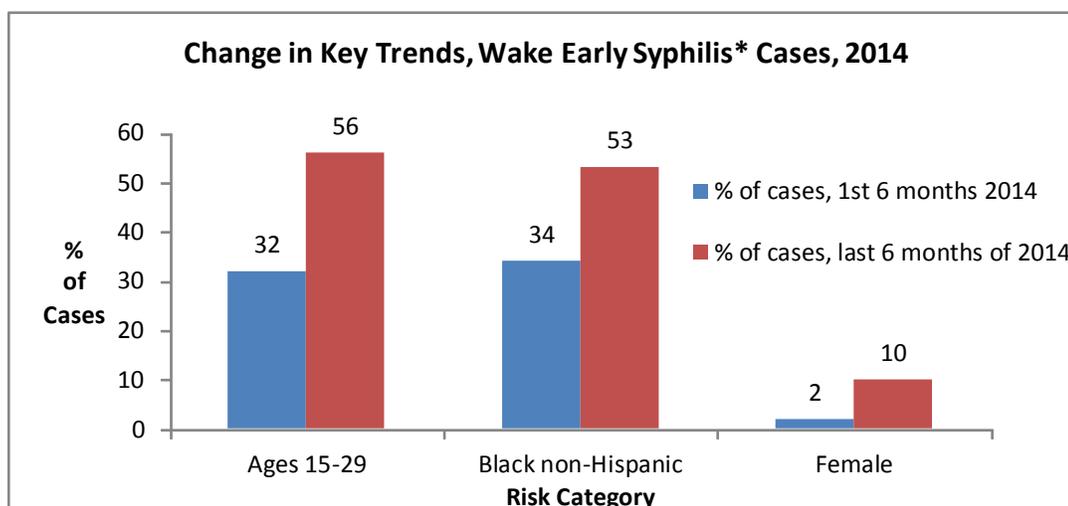


*Primary, Secondary and Early Latent stages

Data Source: NC Division of Public Health <http://epi.publichealth.nc.gov/cd/stds/figures.html>

Affected populations have shifted rapidly. In July 2014, the outbreak centered around older (40+) white men having sex with men (MSM); in January 2015, the outbreak shifted to younger (15-29) black heterosexual males and females (Figure 11).

Figure 11

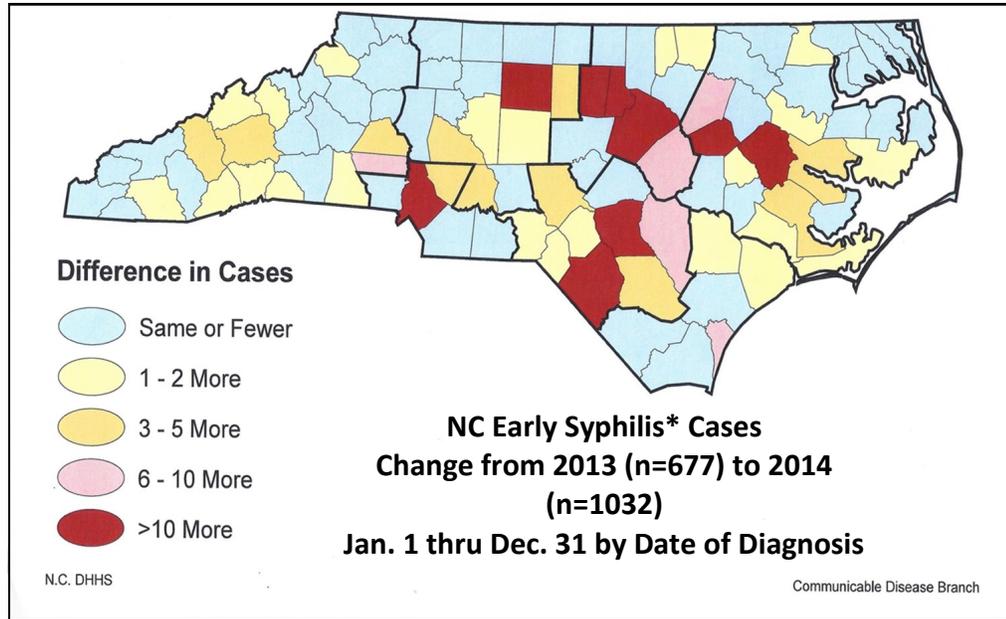


*Primary, Secondary and Early Latent stages

Data Source: North Carolina Electronic Disease Surveillance System, 1/12/15

This rise in syphilis cases is consistent with trends across NC. Thirty one counties saw increased cases in 2014 when compared with 2013 (Figure 12).

Figure 12



*Primary, Secondary and Early Latent stages

Anyone having unprotected sex can get syphilis. However key risk factors include:

- Men having sex with men
- Having HIV or other sexually transmitted diseases
- Having more than one sex partner
- Meeting sex partners on the internet

According to Disease Intervention Specialist interviews, 30 percent of people diagnosed with syphilis from 1/2014 to 4/2015 met sex partners over the internet by using social media or smart phone apps, making it easier to meet sex partners.

Strategies being employed to address this outbreak include:

- Establishing an Incident Management Team as part of an Incident Management Structure to control the spread of the outbreak
- Increasing syphilis screening of HIV positive patients in Wake County HIV Clinic from once a year to every 3-6 months
- Treating any questionable syphilis symptoms presumptively in people seeking treatment in Wake County's HIV and STD clinics
- Providing in depth training by DIS on syphilis symptoms and lab test results interpretation for Wake County HIV/STD health educators, outreach workers and counseling and testing staff.
- Reaching out to health care providers in a variety of settings to provide education and resources to help stop the outbreak



HIV/STD Community Program staff providing testing and education.

General Strategies to Reduce HIV/STDs in Wake County

On-going outreach and education is provided by the HIV/STD Community Program in a variety of settings, including but not limited to, area jails, substance abuse programs, and Human Services Regional Centers.

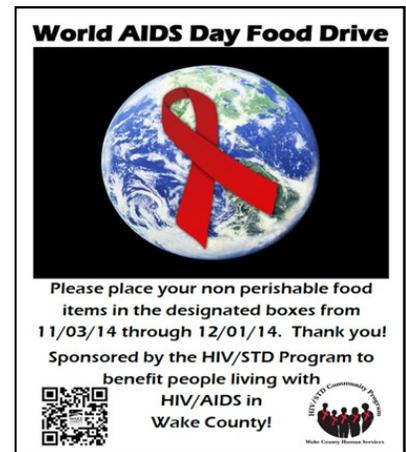
There are 43 condom distribution sites (CDS) across Wake County conveniently located at area barbershops, beauty salons, tattoo parlors, markets, laundromats and other local businesses. These community partners volunteer to display CDS materials free of charge to improve community members' access to condoms, education and testing information.

Ongoing HIV and STD testing is provided regularly in Wake County's regional centers as well as locations that serve those at high risk (substance abuse centers, area colleges and universities, Lesbian Gay Bisexual and Transgender (LGBT) centers, and local jails). Targeted testing and education is also provided in "hot spots" where an increase in cases of STDs has been found.

Under One Roof, Wake County's Bridge Counseling Service, provides case management for HIV positive individuals with the goal of "getting people into HIV care and keeping them there". Keeping HIV positive individuals in care helps to reduce viral loads, which in turn, reduces the risk of transmission of HIV in the community.



Wake County Human Services HIV/STD Educational Display

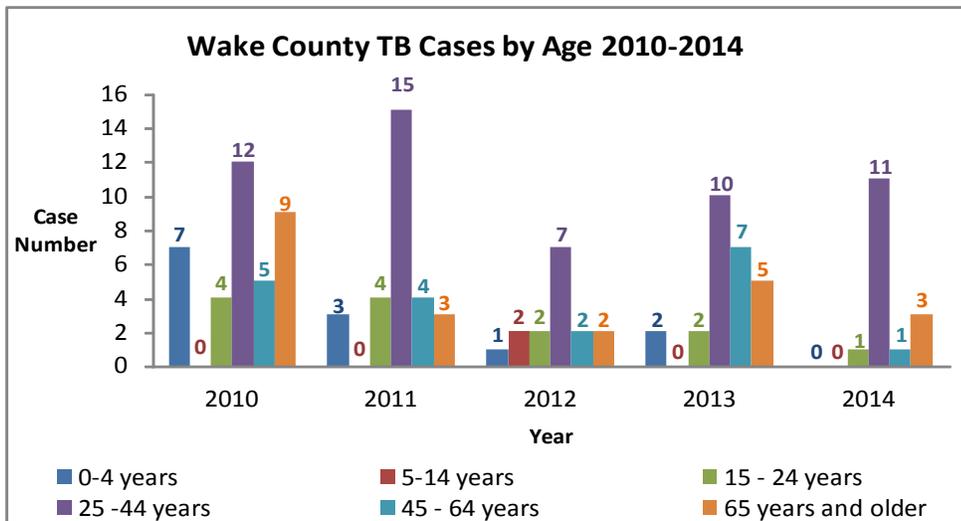


Poster for World AIDS Day food drive.

Tuberculosis

Overall, the case rate for TB decreased from a high of 4.1 per 100,000 population in 2010 to 2.7 in 2013 (Table 4, page21). From 2010-2014, the highest number of cases were reported in the 25 -44 year age group (Figure 13). There is no significant difference in cases by gender (data not shown).

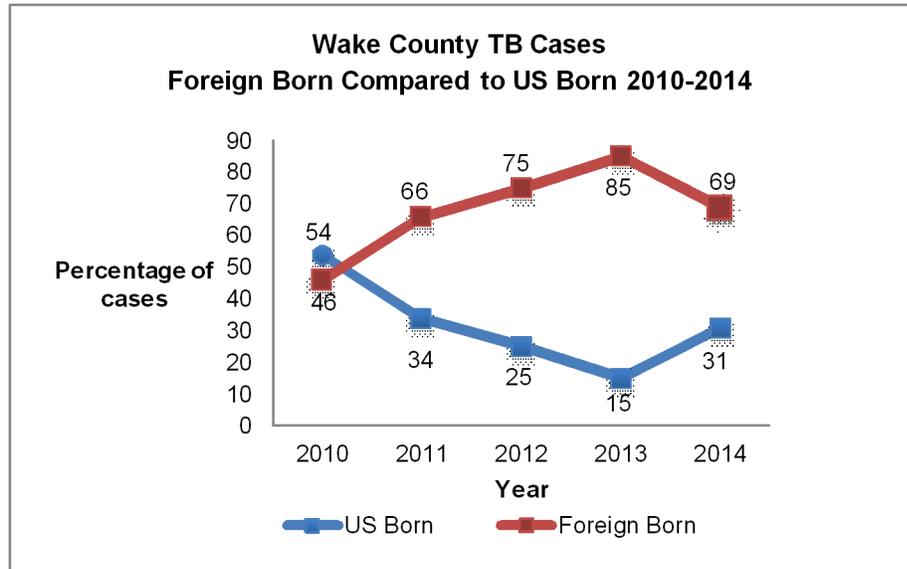
Figure 13



Data Source: Wake County Human Services TB Control Program

The proportion of foreign born TB patients compared to US born has shifted significantly from 2010 to 2014. In 2010, the percentage of foreign born TB patients to non-foreign born TB patients was about equal; whereas from 2011 to 2014 the percentage of foreign born TB patients was higher compared to those born in the US. In 2014, 69% percent of TB patients were foreign born (India, Mexico, Africa and Mongolia), and 31% were born in the US. (Figure 14).

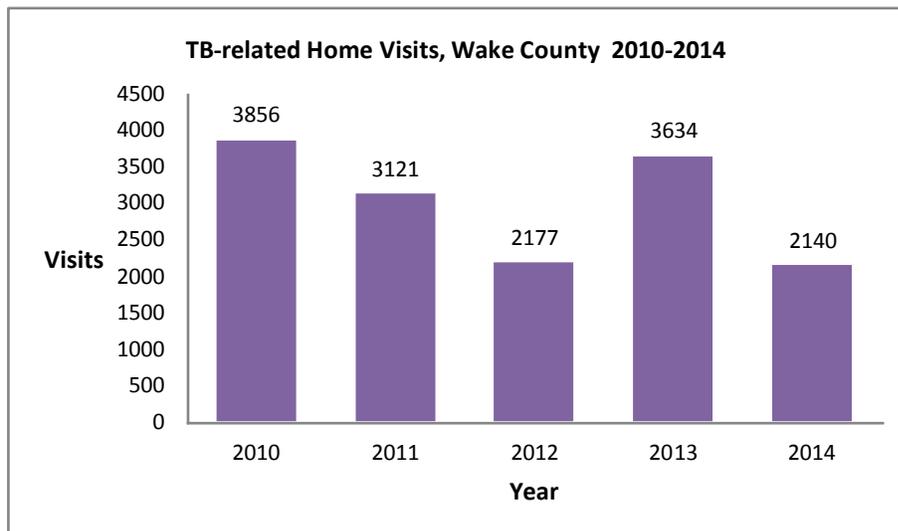
Figure 14



Data Source: WCHS TB Control Program

To treat and prevent further spread of disease, TB patients need to take all of one or more prescribed medications for up to a year. If the medication is not taken as prescribed, drug-resistant TB can occur. This in turn requires longer treatment. Nurses conduct TB screening, directly observe patients with TB disease take their medication, monitor medications and assess for side effects. Figure 15 shows the number of TB related home visits conducted by staff from the Wake County Human Services TB Control Program.

Figure 15



Data Source: WCHS TB Control Program

Vector-borne Diseases

Vector-borne diseases are caused by microbes that are spread to people by arthropods like ticks and mosquitoes that feed on human blood. The vector-borne diseases that occur most often in Wake County are transmitted by ticks. Table 3 shows confirmed as well as suspect and probable cases of tickborne disease (ehrlichiosis, Lyme disease and Rocky Mountain spotted fever) . For tickborne diseases, many more cases are suspected and investigated than can be confirmed. This is due to the difficulty in getting clinical and/or laboratory information needed to meet the confirmed case definition.

Table 3

Tickborne Disease Reported in Wake County 2010—2014										
Disease	2010		2011		2012		2013		2014	
	Case Count*	Confirmed								
Ehrlichia	0	0	0	0	1	0	0	0	0	0
Ehrlichia, HGE	5	0	14	0	10	0	11	0	8	0
Ehrlichia, HME	44	3	64	2	61	1	17	2	11	1
Lyme disease	111	5	55	3	32	2	58	7	53	7
Rocky Mountain Spotted Fever	91	2	110	1	170	0	73	0	101	0
*Suspect, probable, and confirmed cases										

Data Source: NC Electronic Disease Surveillance System 4/28/2015

In the fall of 2014, Chikungunya was added to the list of reportable diseases. Chikungunya virus is transmitted to people by mosquitos, predominantly by *Aedes aegypti* and *Aedes albopictus*, both aggressive daytime biting mosquitoes. Chikungunya virus has periodically caused outbreaks in Africa for decades.

In late 2013, Chikungunya virus was found for the first time in the Americas on islands in the Caribbean and now over 1.2 million cases have been reported (<http://www.paho.org/chikungunya>). Imported cases have been identified in residents from North Carolina and other states returning from endemic areas. Since surveillance began in 2014, only one case was reported in a Wake County resident. Although transmission in the United States has only been documented in Florida to date, local transmission within North Carolina is possible, as the mosquito vector (*Aedes albopictus*) is found throughout North Carolina.

Prevention Efforts

Communicable disease health educators address the issue of vector-borne diseases in a variety of ways. Over the past year, they have:

- Presented a “Fight the Bite” educational program in 6 libraries across the county addressing ticks, mosquitos, wildlife and pet bites.

- Provided educational outreach through area parks, Human Services facilities, Spanish radio and media releases in English and Spanish
- Trained about 200 Raleigh Parks and Recreation staff about tick-borne illness and prevention
- Created a webpage that specifically addresses mosquito-borne illnesses and prevention measures, including Chikungunya
- Updated Wake County's tickborne illness webpage and translated it into Spanish
- Created and distributed posters and pamphlets about ticks through Wake County and City of Raleigh Parks and Recreation
- Updated the tickborne illness pamphlet in English and Spanish which are distributed during educational outreach opportunities and available on the Wake County website



Communicable Disease Nurses providing tick education to Public Health Center visitors.



Tickborne disease prevention educational materials.



Animals and Public Health

Communicable disease nurses followed up on 460 cases of animal bites to humans in 2014. Follow up consists of investigating and evaluating for risk of exposure to rabies. This always includes calling the bite victim and often calling an Animal Control Officer to gather more information about the exposure risk. When appropriate, bite victims are encouraged to receive rabies immune globulin as well as rabies vaccine. Bite victims are called again to ensure compliance with vaccinations.

To address rabies and animal bites in 2014, Wake County provided:

- Education, in English and Spanish, in a variety of ways including through the media (TV, radio and print), Wake County's website and written materials such as posters and pamphlets. Animal Control Officers also provide rabies information to people when picking up strays and other animals.
- Eight low cost (\$5) rabies vaccine clinics were provided for pets of low income residents throughout the county. Through this program a total of 1,479 pets were vaccinated in 2014.

2014 West Africa Ebola Epidemic

The world is experiencing the largest Ebola epidemic in history, affecting multiple countries in West Africa. Wake County Division of Public Health and its partners took precautions to prevent and prepare for Ebola cases that may surface in the county. The Public Health Incident Management Team and the Emergency Operations Center (EOC) were activated to help coordinate technical assistance and control activities. As of 5/28/15, 72 people traveling from Liberia, Sierra Leon, Guinea and Mali to Wake County have been monitored for potential exposure to and symptoms of Ebola since early August 2014.

All Reportable Communicable Diseases and Conditions

Table 4

NOTIFIABLE COMMUNICABLE DISEASES 2010-2014, WAKE COUNTY										
Disease	2010		2011		2012		2013		2014	
	Case Count	Rate [♦]								
AIDS***	111	12.2	87	9.4	61	6.4	76	7.8	66	6.6
Anthrax	0	0	0	0	0	0	0	0	0	0
Arboviral other	0	0	0	0	0	0	0	0	0	0
Botulism - foodborne/wound	0	0	0	0	0	0	0	0	0	0
Botulism - infant	0	0	0	0	0	0	0	0	0	0
Brucellosis	0	0	0	0	1	*	0	0	0	0
Campylobacter infection	64	7.1	49	5.3	95	10.0	135	13.8	125	12.5
Chancroid	1	*	0	0	0	0	0	0	0	0
Chikungunya	0	0	0	0	0	0	0	0	1	0
Chlamydia	4,531	499.6	4,963	534.0	4,668	490.0	4,212	432.0	4,380	438.6
Cholera	0	0	0	0	0	0	0	0	0	0
Creutzfeldt-Jakob disease	1	*	1	*	2	*	2	*	0	0
Cryptosporidiosis	2	*	0	0	4	*	7	*	14	*
Cyclosporiasis	0	0	0	0	0	0	0	0	1	*
Dengue	2	*	2	*	1	*	2	*	1	*
Diphtheria	0	0	0	0	0	0	0	0	0	0
<i>E. coli</i>	11	*	31	3.3	19	*	17	*	11	*
Eastern Equine Encephalitis	0	0	0	0	0	0	0	0	0	0
Ehrlichia	0	0	0	0	1	*	0	0	0	0
Ehrlichia, HGE	5	*	14	*	10	*	11	*	8	*
Ehrlichia, HME	44	4.9	64	6.9	61	6.4	17	*	11	*
Encephalitis, arboviral, LaCrosse	0	0	0	0	2	*	0	0	0	0
Encephalitis, arboviral, West Nile Virus	0	0	1	*	7	*	0	0	0	0
Foodborne <i>Clostridium perfringens</i>	0	0	0	0	0	0	1	*	0	0
Foodborne	0	0	0	0	0	0	0	0	0	0

♦Rate calculated as case count per 100,000 population.

* Number of cases too small to calculate a rate.

***2013 and 2014 case counts for HIV and AIDS obtained from HIV/STD Branch 2013 and 2014 4th Quarter Surveillance

All Reportable Communicable Diseases and Conditions

Table 4 continued

NOTIFIABLE COMMUNICABLE DISEASES 2010-2014, WAKE COUNTY										
Disease	2010		2011		2012		2013		2014	
	Case Count	Rate [†]								
Foodborne other	0	0	0	0	0	0	0	0	0	0
Foodborne poison	0	0	0	0	1	*	0	0	0	0
Foodborne staphylococcal	1	*	2	*	0	0	0	0	2	*
Gonorrhea	1,252	138.1	1,421	152.9	1,342	140.9	1,206	123.7	1,213	121.5
Granuloma inguinale	0	0	0	0	0	0	0	0	0	0
<i>Haemophilus influenzae</i>	11	*	9	*	12	*	19	*	11	*
Hantavirus	0	0	0	0	0	0	0	0	0	0
Hemorrhagic Fever virus infection	0	0	0	0	0	0	0	0	0	0
Hepatitis A	2	*	2	*	2	*	2	*	2	*
Hepatitis B acute	4	*	4	*	4	*	5	*	6	*
Hepatitis B chronic	183	20.2	202	21.7	114	12.0	103	10.6	66	6.6
Hepatitis B perinatally acquired	0	0	0	0	0	0	0	0	0	0
Hepatitis C - acute	1	*	1	*	3	*	5	*	5	*
HIV***	270	29.8	233	25.1	206	21.6	162	16.6	181	18.1
HUS (Hemolytic Uremic Syndrome)	1	*	0	0	0	0	0	0	0	0
Influenza death (<18 years old)	0	0	1	*	0	0	0	0	1	*
Influenza, adult death (18 years of age or more)	0	0	7	*	3	*	2	*	8	*
Influenza, NOVEL virus infection	0	0	0	0	0	0	0	0	0	0
Legionellosis	4	*	8	*	3	*	9	*	8	*
Leprosy (Hansen's Disease)	0	0	0	0	0	0	0	0	0	0
Leptospirosis	0	0	1	*	0	0	0	0	0	0
Listeriosis	1	*	1	*	0	0	3	*	1	*
Lyme Disease	111	12.2	55	5.9	32	3.4	58	5.9	53	5.3
Lymphogranuloma venereum	0	0	0	0	0	0	0	0	0	0
Malaria	15	*	10	*	5	*	8	*	10	*

[†]Rate calculated as case count per 100,000 population.

* Number of cases too small to calculate a rate.

***2013 and 2014 case counts for HIV and AIDS from HIV/STD Branch 2013 and 2014 4th Quarter Surveillance Reports.

All Reportable Communicable Diseases and Conditions

Table 4 continued

NOTIFIABLE COMMUNICABLE DISEASES 2010-2014, WAKE COUNTY										
Disease	2010		2011		2012		2013		2014	
	Case Count	Rate*								
Measles	0	0	0	0	0	0	0	0	0	0
Meningococcal	1	*	3	*	1	*	1	*	1	*
Middle East Respiratory Syndrome (MERS)	0	0	0	0	0	0	0	0	0	0
Monkeypox	0	0	0	0	0	0	0	0	0	0
Mumps	0	0	0	0	0	0	1	*	0	0
Non-gonococcal urethritis	372	41.0	514	55.3	742	77.9	702	72.0	597	59.8
Ophthalmia neonatorum	0	0	0	0	0	0	0	0	0	0
Pertussis	19	*	6	*	40	4.2	22	2.3	43	4.3
PID (pelvic inflammatory disease)	192	21.2	273	29.4	246	25.8	265	27.2	284	28.4
Plague	0	0	0	0	0	0	0	0	0	0
Pneumococcal meningitis	2	*	4	*	4	*	0	0	2	*
Polio	0	0	0	0	0	0	0	0	0	0
Psittacosis	0	0	0	0	0	0	0	0	0	0
Q Fever	0	0	1	*	1	*	0	0	0	0
Rabies - human	0	0	0	0	0	0	0	0	0	0
Rocky Mountain spotted fever	91	10.0	110	11.8	170	17.8	73	7.5	101	10.1
Rubella	0	0	0	0	0	0	0	0	0	0
Rubella, congenital syndrome	0	0	0	0	0	0	0	0	0	0
<i>S. aureus</i> with reduced susceptibility to vancomycin	0	0	0	0	1	*	0	0	0	0
Salmonellosis	261	28.8	229	24.6	166	17.4	155	15.9	182	18.2
SARS	0	0	0	0	0	0	0	0	0	0
Shigellosis	14	*	11	*	14	*	21	2.2	37	3.7
Smallpox	0	0	0	0	0	0	0	0	0	0
Streptococcal infection Group A, invasive	13	*	27	2.9	15	*	13	*	26	2.6

*Rate calculated as case count per 100,000 population.

* Number of cases too small to calculate a rate.

All Reportable Communicable Diseases and Conditions

Table 4 continued

NOTIFIABLE COMMUNICABLE DISEASES 2010-2014, WAKE COUNTY										
Disease	2010		2011		2012		2013		2014	
	Case Count	Rate [†]								
Syphilis, congenital	0	0	0	0	0	0	0	0	1	*
Syphilis, early latent	42	4.6	31	3.3	28	2.9	40	4.1	75	7.5
Syphilis, late latent**	34	3.7	58	6.2	42	4.4	53	5.4	103	10.3
Syphilis, late latent with symptoms	0	0	0	0	0	0	0	0	2	*
Syphilis, latent, duration unknown**	19	*	8	*	16	*	12	*	1	*
Syphilis, neurosyphilis	0	0	0	0	0	0	0	0	0	0
Syphilis, primary	2	*	13	*	7	*	18	*	38	3.8
Syphilis, secondary	40	4.4	28	3.0	44	4.6	48	4.9	77	7.7
Tetanus	0	0	0	0	0	0	0	0	0	0
Toxic Shock Syndrome, non-streptococcal	0	0	0	0	0	0	0	0	0	0
Toxic Shock Syndrome, streptococcal	2	*	2	*	0	0	0	0	0	0
Trichinosis	0	0	0	0	0	0	0	0	0	0
Tuberculosis	37	4.1	29	3.1	16	*	26	2.7	16	*
Tularemia	0	0	0	0	0	0	0	0	0	0
Typhoid acute	3	*	1	*	1	*	0	0	3	*
Typhoid carrier	0	0	0	0	0	0	0	0	0	0
Typhus	0	0	0	0	0	0	0	0	0	0
Vaccinia	0	0	0	0	0	0	0	0	0	0
Vibrio infection, other	1	*	1	*	2	*	4	*	2	*
<i>Vibrio vulnificus</i>	0	0	0	0	1	*	0	0	0	0
Yellow fever virus	0	0	0	0	0	0	0	0	0	0

[†]Rate calculated as case count per 100,000 population.

* Number of cases too small to calculate a rate.

**In 2014, CDC retired the disease classification "Syphilis, latent, unknown duration". All cases in that category are subsumed into "Syphilis, late latent" for 2014 and future years.

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