

Wake County Human Services Public Health Report Communicable Disease 2019



A wide array of communicable disease prevention materials is available at WakeGOV.com



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1.0 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.

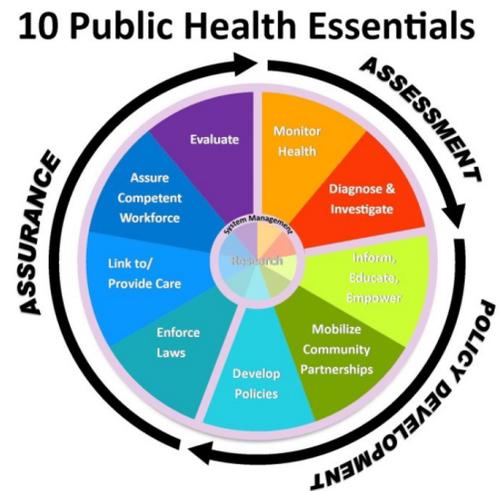
These reports help fulfill public health essential services:

- 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



2.0 Surveillance

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 over 70 reportable diseases and conditions specified in the N.C. Administrative Code rule 10A NCAC 41A .0101.¹

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 (NC DPH) via the North Carolina Electronic Disease Surveillance System (NCEDSS) 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 2014 through 2018 along with other information about selected communicable diseases of public health significance. Of special note, this report differs from previous communicable disease reports in one key respect: since the NC DPH rolled out the North Carolina Disease Data Dashboard (NCD3) in July 2018, statewide and county case counts and incidence rates for all reportable infectious diseases dating back to 2005 are now available at this website: <https://public.tableau.com/profile/nc.cdb#!/vizhome/NCD3NorthCarolinaDiseaseDataDashboard/DiseaseMapsandTrends>.

To achieve consistency with the state’s counts and rates, as well as to be able to monitor significant trends appropriately, the WCHS Epidemiology Program counts probable and suspect cases as appropriate, in addition to confirmed cases, for all figures and tables in this report. Also, since summary data is now available publicly at NCD3, this report will no longer include five-year summary tables for communicable diseases. (It is also worth noting that surveillance, investigation, and control measures are applied to all reported cases regardless of classification.)

3.0 Vaccine Preventable Diseases

3.1 Pertussis and *Haemophilus influenzae* type b

During the last five years, Wake County had an average of 41.4 pertussis (whooping cough) and 19.6 *Haemophilus influenzae* type b (Hib) cases each year (Figure 2).

Pertussis and *Haemophilus influenzae* type b Cases, Wake County, 2014-2018

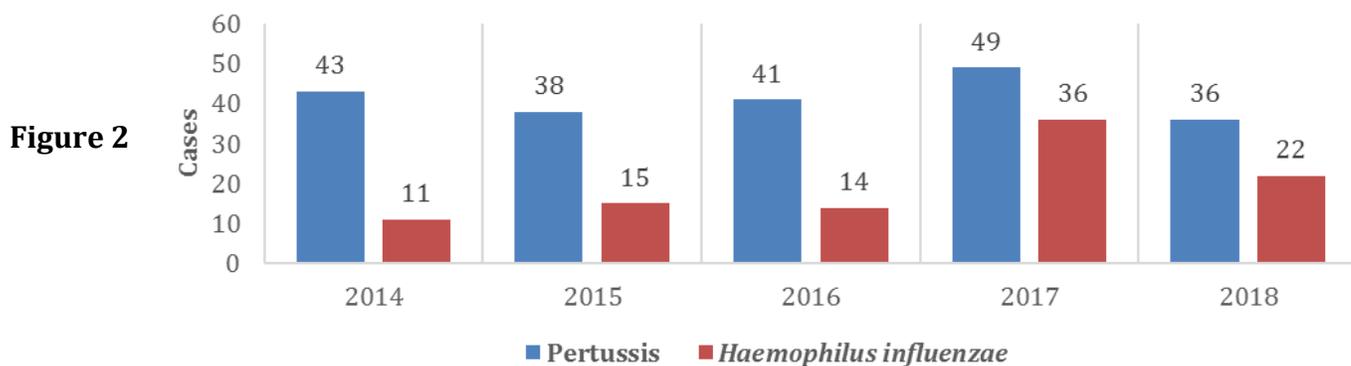
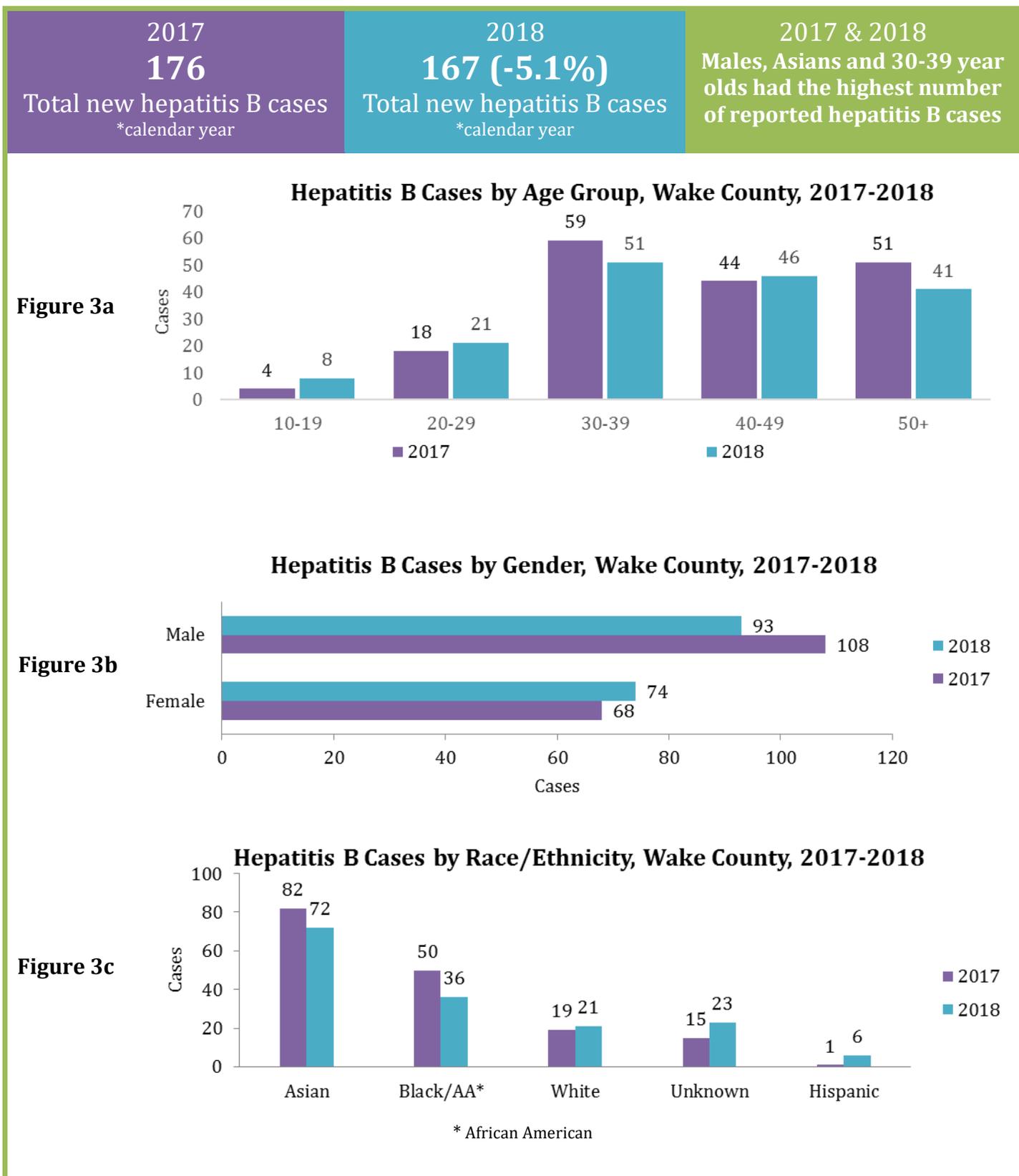


Figure 2

Source: North Carolina Disease Data Dashboard, at <https://public.tableau.com/profile/nc.cdb#!/> and NCEDSS. 5/30/19.

3.2 Hepatitis B

The following is a demographic dashboard comparing Wake County's 2017 and 2018 hepatitis B cases .



Source: NCEDSS, GCDC Demographic and Reporting Source Line List by MMWR date, 5/16/19.

3.3 Influenza

The 2018-19 flu season was much milder than last season in Wake County and North Carolina, in large part due to increased vaccine effectiveness (VE). While *influenza A(H1N1) pdm09* strains predominated across most of the US, *influenza A(H3N2)* prevailed in the southeastern US. CDC's mid-season VE estimate showed this season's vaccine was much more effective than last year's against medically attended acute respiratory illness (ARI) caused by H3N2 (44% in 2018-19, versus 25% in 2017-18). CDC contends that "With vaccine effectiveness in the range of 30 percent to 60 percent, influenza vaccination prevents millions of infections and medical visits and tens of thousands of influenza-associated hospitalizations each year in the United States."²

In both North Carolina and Wake County, there were fewer flu deaths and influenza-like illness (ILI) outpatient visits reported in 2018-19 than in previous years. There were nine flu deaths in Wake County and 208 in North Carolina this season, compared to 20 and 391, respectively in 2017-18. Figure 4 shows statewide ILI percentages during the last three flu seasons.

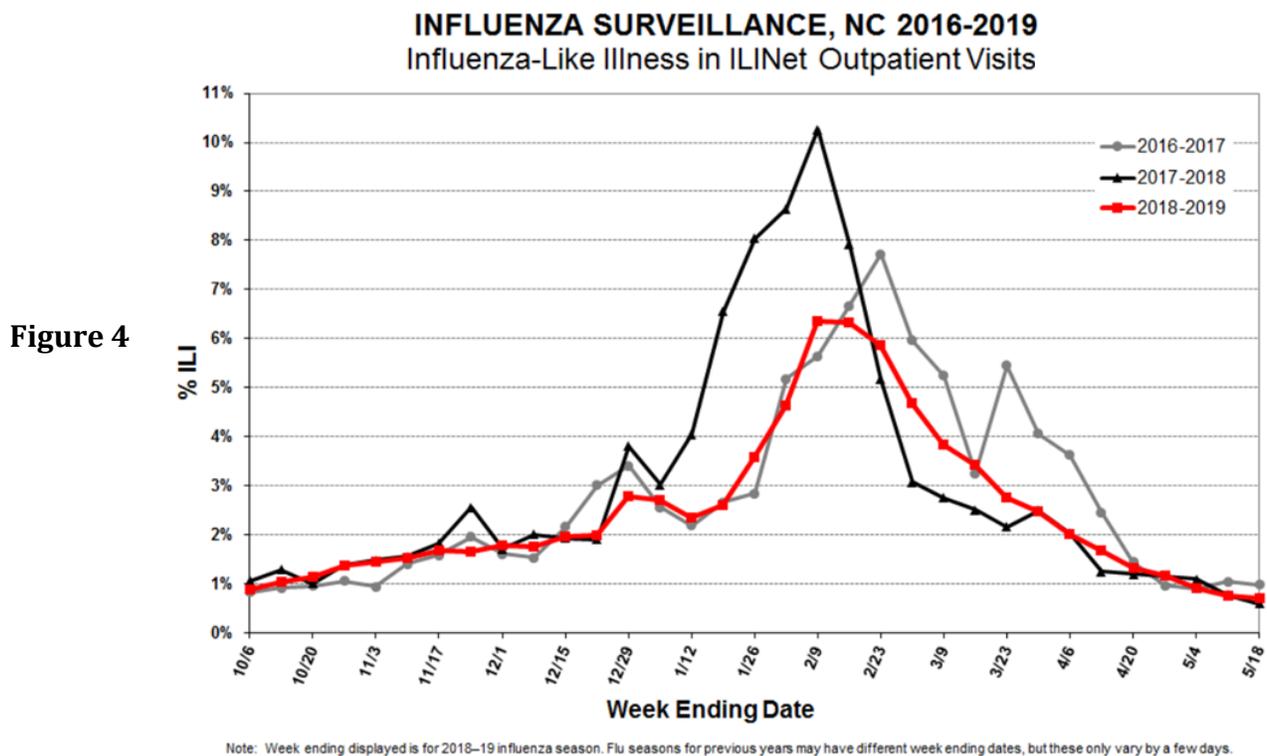


Figure 4

Source: <https://flu.ncdhhs.gov/>, 5/30/19.

The WCHS Epidemiology Program provided weekly flu surveillance data to the Capital Regional Advisory Committee (CapRAC) Healthcare Preparedness Coalition during the 2018-19 flu season. The following partner agencies engaged in regular communication (weekly conference calls and emails), information sharing, and coordination of public messaging in response to changing epidemiological trends:

- Duke Raleigh Hospital
- UNC Rex Healthcare
- WakeMed Health & Hospitals

- Wake County Communications Office
- Wake County Emergency Management
- Wake County Emergency Medical Services
- Wake County Human Services/Public Health (Epidemiology, Communicable Disease and Preparedness and Response)

Table 1 shows the number of flu vaccine doses administered by Wake County Human Services (WCHS) during the 2017-18 flu season.

Table 1

Flu Vaccine Doses Administered by WCHS September 15, 2018 through May 1, 2019	
Children 6 months through 18 years	5,280
Adults 19 years and older	3,305
TOTAL	8,585
NOTE: the total numbers above include 1,372 flu vaccine doses administered to Wake County employees. This number includes all staff, not just those covered by the Public Health Division’s flu vaccine mandate.	

Source: WCHS Immunization Tracking Team, 5/13/19.

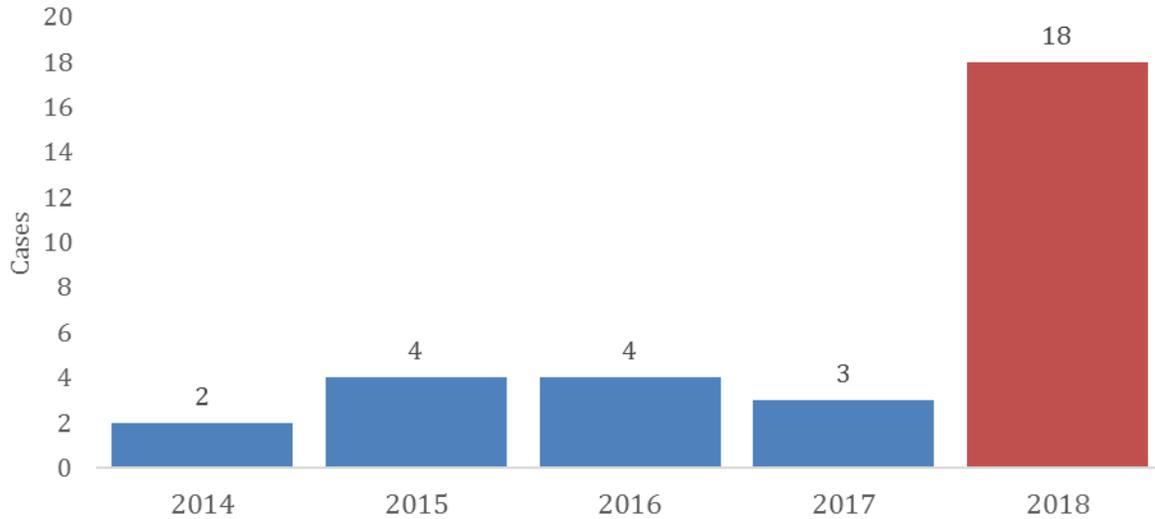
3.4a SPECIAL FOCUS: Yellow Fever Vaccine Expanded Access Program

The Wake County Human Services Immunization Clinic was selected as one of only 250 clinics in the United States, and one of seven in North Carolina, to provide Stamaril yellow fever vaccine during a nationwide shortage. The *Stamaril Expanded Access Program* (EAP) provides yellow fever vaccines to clinics that serve clients traveling to countries that require proof of yellow fever immunization for entry. Stamaril received approval from the FDA for this program, which is similar to a clinical trial and requires special training for staff and monitoring of vaccine recipients. Prior to use in the United States, Stamaril has been licensed for more than 30 years, and used in 70 countries, with more than 430 million doses administered. Since initiation of the program in late August 2017, nearly 1,000 clients have received Stamaril yellow fever immunizations.

3.4b SPECIAL FOCUS: Hepatitis A Outbreak

In July 2018, the CDC issued a health advisory in response to a multi-state (including states in the southeastern US) outbreak of hepatitis A. While North Carolina was not one of these states, an increased number of cases were reported in many NC counties (including Wake County) in 2018 (Figure 5).

Figure 5
Hepatitis A Cases, Wake County, 2014-2018



Source:

2014-17 data obtained at <https://public.tableau.com/profile/nc.cdb#!/vizhome/NCD3NorthCarolinaDiseaseDataDashboard/DataSources>. 5/9/19.

Consistent with the state’s guidance to identify and implement strategies to increase hepatitis A vaccinations to high-risk groups, WCHS’ Division of Public Health began intensified vaccination efforts to the following groups:

- Incarcerated persons
- Homeless persons
- Persons who use injection and non-injection drugs
- Men who have sex with men

During the fall of 2018, the Division of Public Health deployed staff (including two community outreach nurses) to reach out to these groups at the following locations: Love Wins Homeless Outreach Center, WCHS Immunization Clinic (Night Clinic), Wake County Jail, and Healing Transitions. During the last quarter of 2018, community outreach nursing gave 139 vaccinations at these sites. In April 2019, Oak City Cares was added as a vaccination outreach site. Oak City Cares is a services hub for connecting individuals and families at risk of, or currently experiencing, homelessness to coordinated services that create a path to stable housing.

3.4c SPECIAL FOCUS: Measles

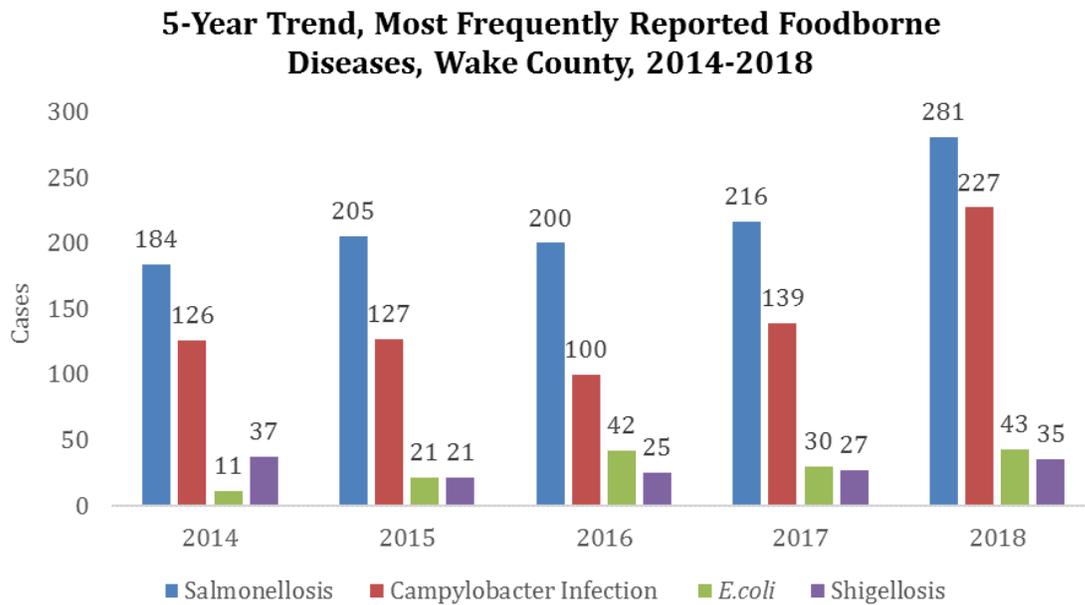
From June 14-29, 2018, Wake County public health staff responded to a potential measles outbreak. Though the index case was determined to be a resident of another county in North Carolina, they exposed others at a hospital in Wake County. Residents from Wake County and 11 other North Carolina counties were exposed. Partnering with the NC DPH Communicable Disease Branch, two local hospitals and a neighboring health department, the two-week investigation yielded the following results:

- 277 people assessed for exposure
- 232/277 (83.7%) contacted by WCHS Public Health
- 79/232 (34.1%) provided proof of immunization
- 9 people excluded from high-risk settings (e.g., day-care centers)
- 6 people quarantined
- 1 person isolated ³

4.0 Foodborne Diseases

Figure 6 shows the five-year trend for the most frequently reported foodborne diseases in Wake County.

Figure 6



Source: NCEDSS, GCDC Demographic and Reporting Source Line List by MMWR date, 5/16/19.

As in prior years, *Salmonella* and *Campylobacter* lead among reported foodborne illnesses, accounting for over 86% of 2018 cases.

Table 2 shows further demographic analysis of the four most commonly reported foodborne diseases in Wake County in 2018. *Salmonella* was mostly reported in children ages 0-9, women and white non-Hispanics. *Campylobacter* was reported mostly among people over age 40, was evenly split among males and females and largely affected white non-Hispanics. *E.coli* was most often diagnosed among children ages 0-19, women, and white non-Hispanics, while *Shigella* was most commonly reported among adults ages 30-39, males, and black non-Hispanics.

Table 2

Demographic Analysis of Foodborne Diseases, Wake County, 2018						
		<i>Salmonella</i>	<i>Campylobacter</i>	<i>E. coli</i>	<i>Shigella</i>	TOTAL
AGE GROUP	0-9	114	28	10	6	158
	10-19	16	14	14	6	50
	20-29	20	25	4	5	54
	30-39	26	23	7	11	67
	40-49	32	43	2	3	80
	50+	73	94	6	4	177
GENDER	Female	165	114	29	11	319
	Male	116	113	14	24	267
RACE/ ETHNICITY	White, non-Hispanic	126	113	21	5	265
	Black, non-Hispanic	36	31	2	12	81
	Unknown	60	46	11	6	123
	Asian	11	4	2	2	19
	Hispanic	16	17	3	3	39
	Other	32	16	4	7	59

Source: NCEDSS, GCDC Demographic and Reporting Source Line List by MMWR date, 5/16/19.

4.1 Foodborne Outbreaks

All foodborne outbreaks must be reported to the local health department and NC DPH. In 2018, the CD Nursing Team investigated four outbreaks with 101 sick individuals.

4.2 Environmental Health

To prevent the spread of foodborne diseases within the community, the WCHS CD Program works closely with the Wake County Environmental Services' Division of Environmental Health and Safety. Within that division, the Food Lodging Institution Section staff inspect adult day services, bed and breakfasts, child care centers, educational food services, elderly nutrition sites, food stands, hospitals, institutional food services, limited food services, jails, lodging, meat markets, mobile food units, nursing homes, school lunchrooms, pushcarts, resident camps, restaurants, and residential care facilities based on state mandated frequency.

The number of facilities in Wake County increases on average by 3% each year. Since 2015, Wake County has added 15 FTEs to this section, to inspect the growing number of facilities. The total number of inspections increased from FY2017 to FY2018 because of these additional staff (Figure 7).

Figure 7

**Food Lodging Institution Inspections
by Month, Fiscal Year 2017 Compared to Fiscal Year 2018**



	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18
■ FY17	510	605	625	544	511	487	576	595	701	614	759	834
■ FY18	793	849	680	785	703	694	801	799	773	790	744	841

Source: WCES Environmental Health and Safety Division, 5/29/19.

5.0 Vectorborne Diseases

Vectorborne diseases are caused by microbes that are spread to people by arthropods like ticks and mosquitoes that feed on human blood. The vectorborne diseases that occur most often in Wake County are transmitted by ticks, but there are instances of diseases transmitted by mosquitoes as well. Table 3 shows confirmed, suspect, and probable cases of tickborne disease (ehrlichiosis, Lyme disease and Rocky Mountain spotted fever) over the last five years. (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

Vectorborne Diseases in Wake County, 5-Year Trend, 2014 - 2018											
		2014		2015		2016		2017		2018	
		Confirmed	Confirmed Probable Suspect								
Tickborne	Ehrlichiosis, HGE	0	8	0	4	0	1	0	2	0	0
	Ehrlichiosis, HME	0	11	1	7	1	10	0	10	0	11
	Rocky Mountain Spotted Fever	0	102	0	47	2	36	0	31	1	48
	Lyme Disease	5	53	1	27	3	30	4	46	1	29
Mosquito-borne	Chikungunya	0	1	0	2	0	1	0	2	0	2
	Dengue	0	1	1	2	1	2	0	1	2	3
	Malaria	11	11	7	7	7	7	9	9	6	6
	West Nile Virus	0	0	0	0	0	0	0	0	0	1
	Zika	0	0	0	0	14	14	1	1	0	2

Source: NCEDSS, GCDC Demographic and Reporting Source Line List by MMWR date, 5/16/19.

5.1 SPECIAL FOCUS: Asian Longhorned Tick

The CDC is monitoring the spread of the Asian Longhorned tick, a new tick species in the Western Hemisphere first found in New Jersey in August 2017. As of May 28, 2019, Asian Longhorned ticks have been found in 11 states, including North Carolina.⁴

The Asian Longhorned Tick is currently the smallest tick observed in the US, about the size of a poppy seed. In contrast to most tick species, a single female tick can reproduce offspring (1-2,000 eggs at a time) without mating. As a result, hundreds to thousands of ticks can be found on a single animal, person, or in the environment. Figures 8 and 9 show what this tick looks like.

Figure 8



Nymph and adult female, top view.

Photo Source: <https://www.cdc.gov/ticks/longhorned-tick/index.html>, 5/31/19.

Figure 9



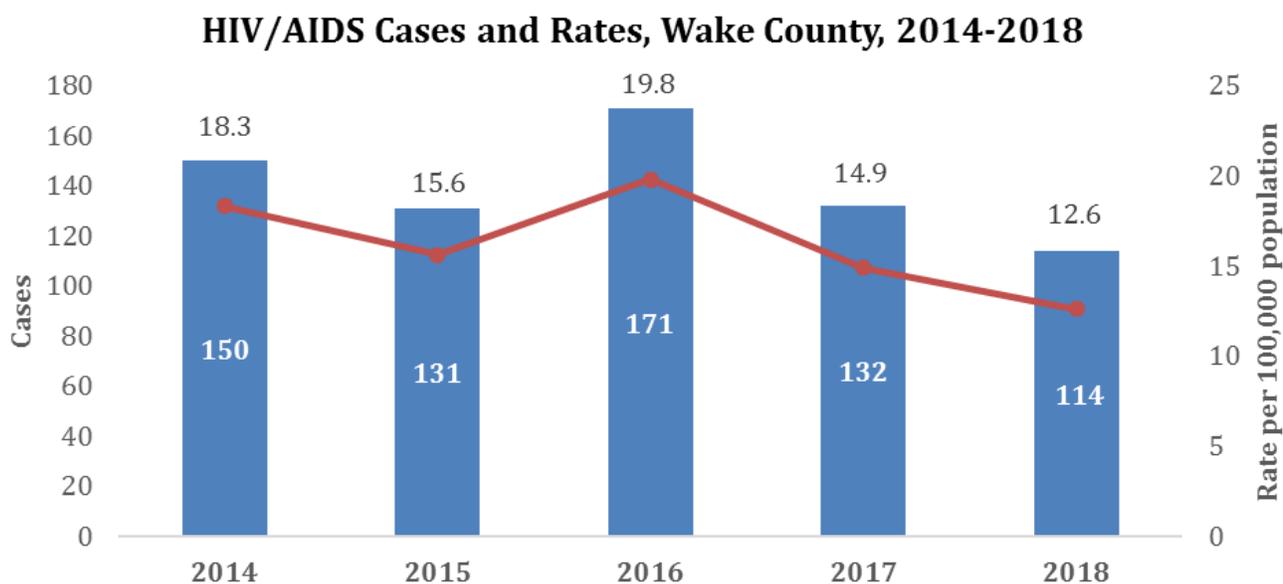
Nymph and adult female, underside.

Researchers at the Center for Infectious Disease Research and Policy (CIDRAP) recently described the first human bite from an Asian Longhorned tick in the US. In June 2018, a New York resident was bitten by this type of tick; he had not traveled outside the US in the 30 days prior to being bitten, and his only outdoor exposure was to his lawn. Subsequent investigation of the area found Asian Longhorned ticks in open, cut grass that was exposed to direct sunlight. The implications for public health messaging around tick bites are significant, since until now the most common biting ticks have been found in shady, wooded areas. ⁵ WCHS will continue to monitor CDC information for changes to guidance.

6.0 Sexually Transmitted Diseases (STDs)

Figures 10-13 show cases and rates for the four most commonly reported STDs in Wake County: chlamydia, gonorrhea, early syphilis, and HIV/AIDS. HIV/AIDS cases and rates have remained largely stable over the last five years. Early syphilis has reached a plateau since 2015, but the high number of cases remains a concern for public health staff. Chlamydia and gonorrhea cases and rates have now reached unprecedented levels in Wake County.

Figure 10



Source: 2014-17 data obtained at https://epi.dph.ncdhhs.gov/cd/stds/figures/std17rpt_rev12142018.pdf, 6/27/19. 2018 data obtained from NC DPH on 6/27/19. Rates for HIV/AIDS are calculated using age-specific population estimates (age 13 or over).

Figure 11

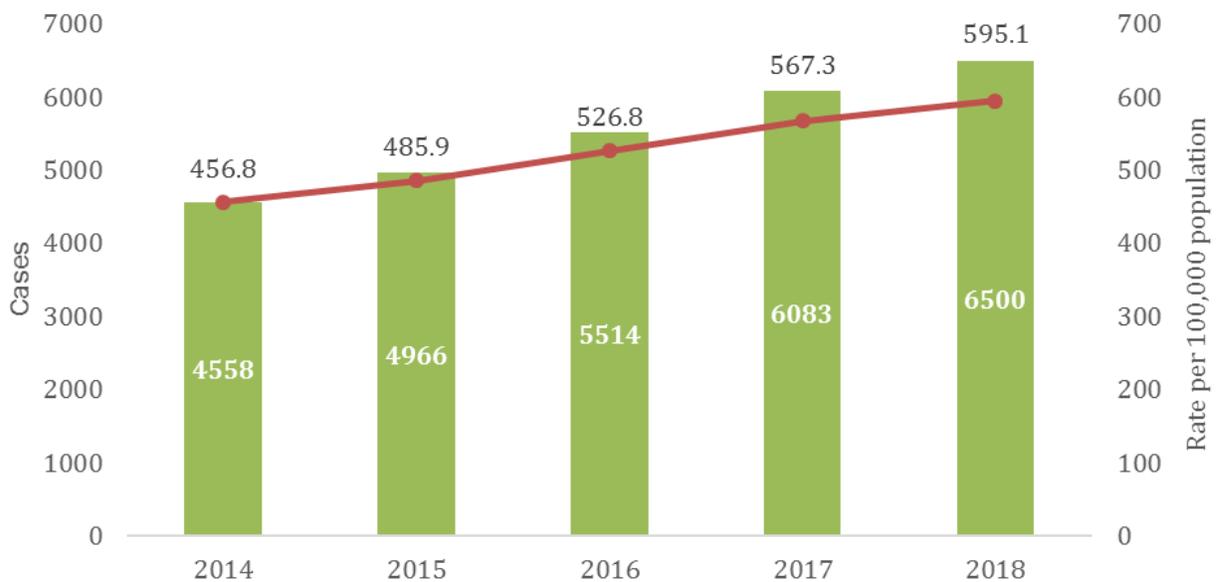
Early Syphilis Cases and Rates, Wake County, 2014-2018



Source: 2014-17 data obtained at <https://public.tableau.com/profile/nc.cdb#!/vizhome/NCD3NorthCarolinaDiseaseDataDashboard/DataSources>, 5/9/19. 2018 data obtained from NCEDSS on 5/10/19 and 5/13/19. 2018 rates calculated using population estimate found at <https://www.census.gov/quickfacts/fact/table/wakecountynorthcarolina/PST045218>, 5/13/19.

Figure 12

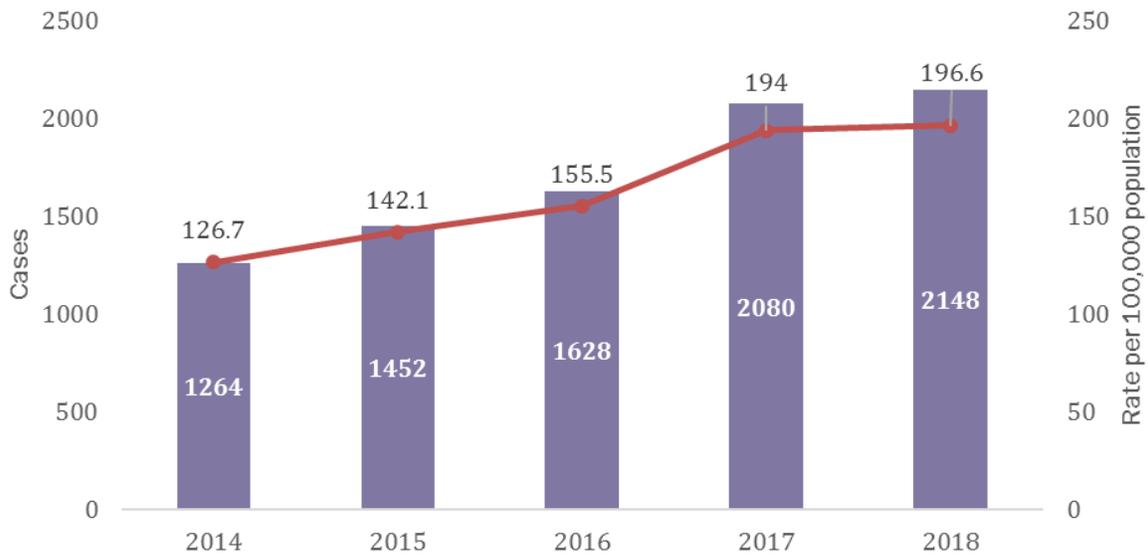
Chlamydia Cases and Rates, Wake County, 2014-2018



Source: 2014-17 data obtained at <https://public.tableau.com/profile/nc.cdb#!/vizhome/NCD3NorthCarolinaDiseaseDataDashboard/DataSources>, 5/9/19. 2018 data obtained from NCEDSS on 5/10/19 and 5/13/19, and 2018 rates calculated using population estimate found at <https://www.census.gov/quickfacts/fact/table/wakecountynorthcarolina/PST045218>, 5/13/19.

Figure 13

Gonorrhea Cases and Rates, Wake County, 2014-2018



Source: 2014-17 data obtained at <https://public.tableau.com/profile/nc.cdb#!/vizhome/NCD3NorthCarolinaDiseaseDataDashboard/DataSources>, 5/9/19. 2018 data obtained from NCEDSS on 5/10/19 and 5/13/19, and 2018 rates calculated using population estimate found at <https://www.census.gov/quickfacts/fact/table/wakecountynorthcarolina/PST045218>, 5/13/19.

7.0 Tuberculosis

The number of TB cases decreased, and clinic and field visits by TB program staff increased, in 2018 (Figure 14). The addition of a field-based nurse position in August 2018, coupled with higher patient acuity, increased the number of both clinic and field visits in 2018.

TB Cases Compared to Field and Clinic* Visits, Wake County, 2014-2018



Figure 14

*Clinic visit data prior to 2015 is not available due to change in the patient management system. The source for all TB data in this report is the WCHS TB program, 5/29/19.

The following is a demographic dashboard for calendar year 2018 TB cases in Wake County.

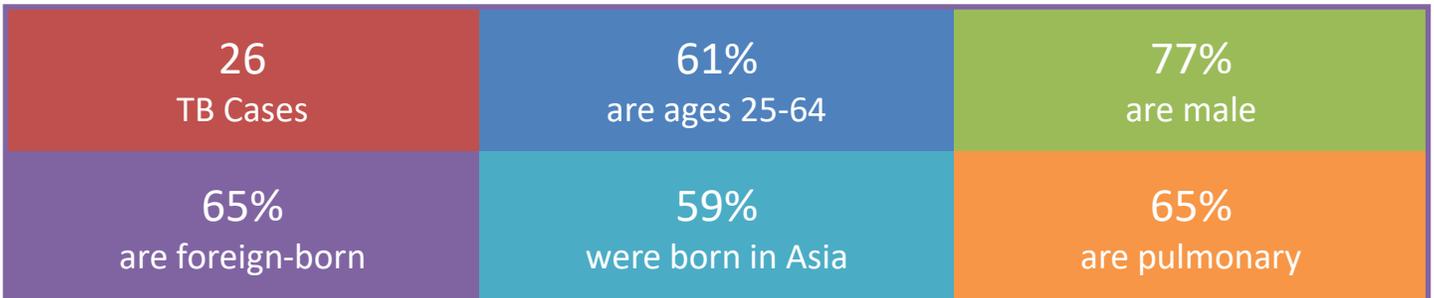


Figure 15a

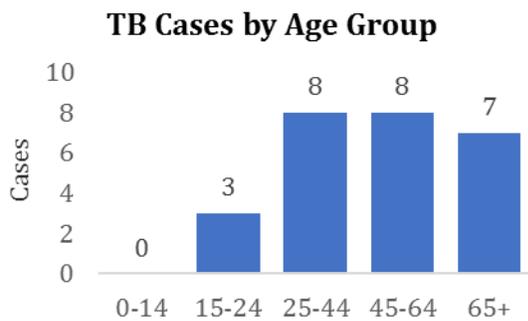


Figure 15b

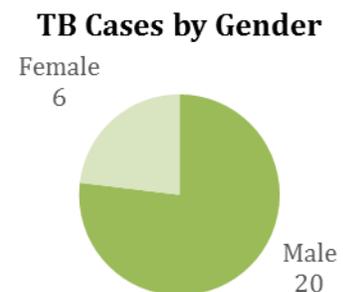


Figure 15c

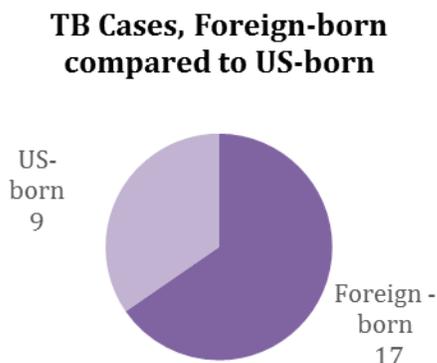


Figure 15d

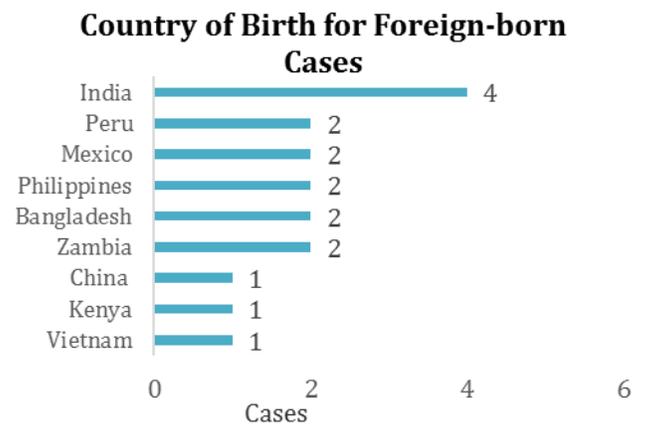
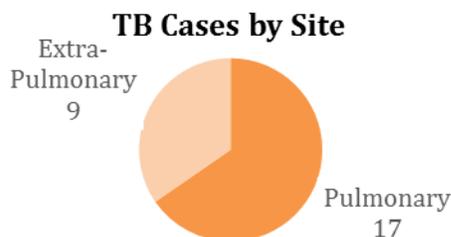


Figure 15e



While still important to diagnose and treat, extra-pulmonary TB is not infectious and so is not as dangerous to the public's health as pulmonary TB. Almost two-thirds of the 2018 TB cases were pulmonary.

8.0 Program Profiles

This section describes:

- Public Health programs, services and activities that assess, identify, treat, follow up and prevent reportable (and some non-reportable) communicable diseases and conditions in Wake County
- The number of employees dedicated to those activities
- Program outputs

8.1 Immunization Tracking Team

Mission: Ensure that children and adults living in Wake County are age-appropriately immunized per NC Law

Staff: 4 FTE's: 1 Administrative Supervisor – 1 Registered Nurse – 2 Human Services Technicians

Activity	Description	Outcomes/Outputs Data for period July 1, 2018 through May 1, 2019 (unless otherwise noted)
Tracking for Compliance	Tracking to ensure Wake County children are age appropriately immunized, focus on 19-35 month old children with medical home at WCHS.	<ul style="list-style-type: none"> • 749 clients with medical home at WCHS • 91% compliant at 24 months • 97% compliant at 35 months
North Carolina Immunization Registry (NCIR)	Provide system administration, training and support to Wake County staff.	<ul style="list-style-type: none"> • 437 Active Users • 44 New Users added
Immunization Program Management	Provides vaccine supply and inventory management to support 12 clinic and program areas.	<ul style="list-style-type: none"> • 30,208 doses received • 33,251 doses administered • 13,934 clients immunized
Middle School Immunization Compliance	Provides project management and professional nursing services for immunization initiative in collaboration with Wake County Public Schools system.	<ul style="list-style-type: none"> • 7th grade cohort: 12,666 students • 19 students immunized with 37 vaccine doses at 'Exclusion Day' clinic event for School Year 2018-2019

9.1 Immunization Tracking Team continued

Activity	Description	Outcomes/Outputs Data for period July 1, 2018 through May 1, 2019
Outreach Immunization Clinics	Provides access to immunization services to Wake County employees and the public at clinics around the County.	<ul style="list-style-type: none"> • 552 Flu doses to clients • 694 Flu doses to Wake County employees
National Association of Counties (NACo) Prescription Discount Card Program	Provides project administration for Wake County.	<ul style="list-style-type: none"> • CY 2018: 3,052 utilizers • Cost savings of \$168,009
Supports Public Health Division	Provides clinical and/or administrative support and services for special projects and emergency response.	All staff participated in the Florence hurricane sheltering during September 2018 and the Reception and Congregate Care Center exercise at Garner High School in April 2019

8.2 The Wake County Communicable Disease (CD) Program

The Wake County Communicable Disease (CD) Program investigates and follows up on diseases and conditions reported as required under NC law; the program reports disease data to the NC Division of Public Health through the NC Electronic Disease Surveillance System (NCEDSS) and responds to public health emergencies.

Staff: County Funded – 26.0 FTE, state grant-funded—1.0 FTE

Activity	Description	Outputs Data for period January 1, 2018- December 31, 2018
General CD	<ul style="list-style-type: none"> • Conduct investigations for over 70 reportable diseases and conditions as well as animal exposures • Report disease data to NC Division of Public Health through NCEDSS 	<ul style="list-style-type: none"> • 1,028 total CD cases (816 general CD and 212 vaccine-preventable) investigated • 736 animal exposures investigated

9.2 The Wake County Communicable Disease (CD) Program

Activity	Description	Outputs
Tuberculosis (TB)	<ul style="list-style-type: none"> • Conduct investigations for all TB cases in Wake County (both county and out-of-area residents) • Provide clinical care and Directly Observed Therapy (DOT) home visits • Report TB data to NC Division of Public Health through NCEDSS 	<p>Data for period January 1, 2018-December 31, 2018</p> <ul style="list-style-type: none"> • 26 TB cases • 4,093 clinic visits • 4,033 field visits
Disease Intervention Specialists (DIS)	<ul style="list-style-type: none"> • Conduct investigations for HIV and syphilis cases • Report HIV and syphilis data to NC Division of Public Health through NCEDSS 	<ul style="list-style-type: none"> • 243 syphilis investigations • 116 HIV investigations
Health Education	<p>Provide support to CD program by:</p> <ul style="list-style-type: none"> • Assessing, developing and evaluating written educational materials and curricula for use with staff, clients, and the community • Creating and maintaining educational content for WakeGOV.com, media, and social media • Serving as media liaison to Communications Office for Spanish language media • Representing the CD program and Public Health on agency and county wide committees and special initiatives • Responding to public health emergencies 	<ul style="list-style-type: none"> • Provided outreach education through health fairs, farmers markets, and facility tours to 1,766 people at 56 venues • Provided 38 presentations/trainings for 902 participants • Developed or reviewed and revised 195 educational materials in English and Spanish • Updated or developed 22 web pages • Provided 6 interviews for the media reaching thousands of listeners • Worked on 32 special projects • Took calls from the public during Hurricane Florence, September 2018 • Participated in preparedness decontamination exercise at Garner High School in April 2019

8.2 The Wake County Communicable Disease (CD) Program

North Carolina Electronic Disease Surveillance System (NCEDSS)	Ensures all chlamydia, gonorrhea, non-gonococcal urethritis (NGU) and pelvic inflammatory disease (PID) cases are reported to the NC Division of Public Health	Cases reported: <ul style="list-style-type: none"> • 6,456 chlamydia • 2,158 gonorrhea • 101 NGU • 74 PID
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8.3 The HIV/STD Community Program

The mission of the HIV/STD Community Program is to provide HIV/STD health/outreach education services, HIV/STD counseling/testing services and HIV/AIDS Case Management services to populations at highest risk for HIV/STD in Wake County. These services are focused on the principle of Teach, Test and Treat. We provide prevention services by utilizing health education and outreach best practices, identification of new cases by through testing in community settings, and connecting people with HIV/STD treatment and care.

Staff: County Funded - 17 FTE; State Grant funded - 11 FTE; HRSA Grant - 2 FTE; FOCUS Grant – 4.1 FTE; Wake County Drug Overdose Prevention and Tobacco Use Initiative – 1 FTE

Health Education and Outreach

Program and Services	Description	Program Outputs for FY 2017-2018
Jail classes	Provide educational sessions (multiple classes per session) at Wake County jail about HIV/STD prevention (in English and Spanish)	<ul style="list-style-type: none"> • 31 sessions • 309 participants
Classes at Clinic A and Regional Centers	Provide HIV/STD prevention classes for patients in STD waiting room	<ul style="list-style-type: none"> • 84 classes • 1,098 participants
Substance abuse centers	Provide HIV/STD prevention classes for substance users	<ul style="list-style-type: none"> • 20 classes • 1,063 participants
Community response	Respond to community requests for health education classes such as colleges and churches	<ul style="list-style-type: none"> • 183 classes • 6,427 participants
Outreach services	Provide one-on-one education to high risk populations (e.g. homeless, sex workers, substance users, individual clients at health fairs)	<ul style="list-style-type: none"> • 2,068 contacts with community members
Condom Distribution Sites (CDS)	Establish and maintain 46 sites throughout Wake County	<ul style="list-style-type: none"> • 80,298 condoms distributed among all CDS

Counseling and Testing		
Program and Services	Description	Program Outputs for FY 2017-18
Community testing sites (29 sites)	Provide regularly scheduled HIV, STD, and hepatitis C testing at: shelters, substance abuse centers, colleges/universities, County jails, LGBT Center, community based organizations, pregnancy centers, Regional Centers and local events.	# persons tested for: <ul style="list-style-type: none"> • HIV- 3,806 • syphilis- 3,703 • chlamydia- 5,381 • gonorrhea- 5,381 • hepatitis C- 1,347
Field Delivered Therapy (FDT)	Deliver medication to clients that test positive for chlamydia at community testing sites	<ul style="list-style-type: none"> • 335 patients received FDT
HIV/AIDS Case Management and Bridge Counselors		
Program and Services	Description	Program Outputs for FY 2017-18
Services for HIV/AIDS patients	Social Workers (Bridge Counselors and AIDS Case Managers) connect HIV-positive patients to medical care and other support services such as food, housing, emergencies financial assistance, support groups, and education	<ul style="list-style-type: none"> • 43 newly diagnosed clients connected to HIV medical care • 189 total clients connected to medical care • 111 received ongoing HIV/AIDS case management
HIV/AIDS housing	Provide <i>Housing Opportunities for Persons With AIDS</i> (HOPWA) vouchers to HIV-positive clients	# of HOPWA vouchers: <ul style="list-style-type: none"> • 34 vouchers-Wake County • 1 voucher-Franklin County • 4 vouchers-Johnston County
Assistance: walk-ins and/or by appointments	Provide walk-in assistance to clients at Under One Roof center (emergency financial, educational, emotional, housing)	<ul style="list-style-type: none"> • 2,236 clients served
Services for hepatitis C patients	Through the FOCUS grant, social worker (Hepatitis C Bridge Counselor) counsels newly diagnosed hepatitis C positive patients and connects them with medical care and other support services	<ul style="list-style-type: none"> • 144 clients referred to bridge counselors • 107 clients linked to treatment

8.4 Wake County Epidemiology Program

The Wake County Epidemiology (Epi) Program provides support to WCHS programs as well as external partners through data analysis, outbreak management, community presentations and research inquiries. The Epi Program is the key conduit to the Human Services Board for regularly required reporting on public health, including quarterly reports on communicable diseases, chronic diseases, injury prevention and State of the County's Health (SOTCH) reports.

Staff: County Funded – 2.0 FTE, Wake County Drug Overdose Prevention and Tobacco Use Initiative – 0.2 FTE

Program and Services	Description	Program Outputs for CY 2018
Surveillance	Monitors and analyzes case data for all reportable communicable diseases in Wake County	<ul style="list-style-type: none"> • Annual communicable disease, chronic disease and injury prevention reports
Outbreak/Public Health Incident Support	Provides direction and support for outbreaks and other public health incidents	<ul style="list-style-type: none"> • June 2018 measles response • Emergency Operations Center (EOC) coverage Hurricane Florence, 2018
Technical Consultation	Provides technical guidance and protocols for response to health incidents	<ul style="list-style-type: none"> • Measles Quick Sheet
Data Requests	Respond to internal and external data requests	<ul style="list-style-type: none"> • 142 data requests filled
Community Health Needs Assessment (CHNA)	Action Planning and Support	<ul style="list-style-type: none"> • 2018 State of the County's Health (SOTCH) Report • 2019 Community Health Needs Assessment (CHNA) report finalized
Grant Support	Provides ongoing development, coordination and assistance for grants and acquisition of funds from other sources	<ul style="list-style-type: none"> • The Epidemiology Program directs the FOCUS grant with assistance from the HIV/STD program and the WCHS Laboratory
Evaluation	Data support and analysis for the Wake County Drug Overdose Prevention and Tobacco Use Initiative	<ul style="list-style-type: none"> • Manage program evaluation functions, including written quarterly and annual updates

9.0 References

1. Communicable Disease Laws and Rules. North Carolina Department of Health and Human Services. Web. August 7, 2018. Web. 7/9/19. <https://epi.dph.ncdhhs.gov/cd/laws.html>
2. “2018-19 Influenza Vaccine is Effective, says CDC.” American Academy of Family Physicians. February 20, 2019. Web. 5/30/19. <https://www.aafp.org/news/health-of-the-public/20190220fluvaccine.html>.
3. Wake County Human Services Epidemiology Program, 6/29/18.
4. “Asian Longhorned Tick Spreading Widely in U.S.” Centers for Disease Control and Prevention. November 29,2018. Web. 5/31/19. <https://www.cdc.gov/media/releases/2018/p1129-tick-spreading-widely.html>.
5. “First US human bite from worrying Longhorned tick noted.” Center for Infectious Disease Research and Policy. June 3, 2019. Web. 6/21/19. <http://www.cidrap.umn.edu/news-perspective/2019/06/first-us-human-bite-worrying-longhorned-tick-noted>.

10.0 Acknowledgements

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