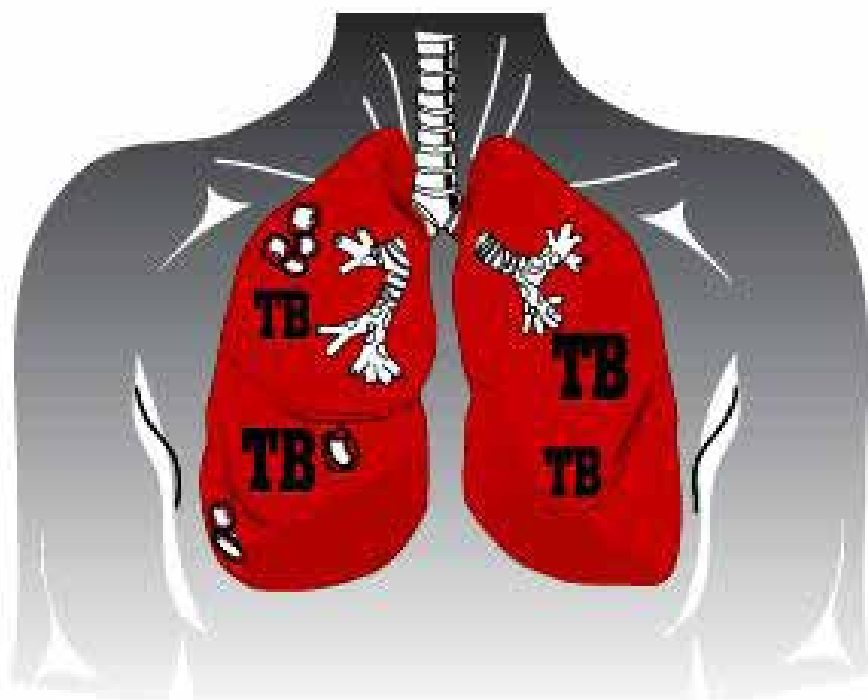


2009 Georgia

Tuberculosis

Report



2009 Georgia Tuberculosis Report

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Tuberculosis (TB) Surveillance in Georgia

Tuberculosis, or TB, is a reportable disease in Georgia. All Georgia physicians, laboratories and other health care providers are required by law to immediately report clinical and laboratory confirmed TB cases under their care to Georgia public health authorities. TB cases may be directly reported to a County Health Department, a District Health office, or to the state TB Program and TB Epidemiology Section of the Georgia Department of Community Health, Division of Public Health (DCH-DPH), which is responsible for the systematic collection of all reported TB cases in the state. Immediate reporting of TB cases enables appropriate public health follow-up of patients, including administration of directly observed therapy, monitoring TB treatment until completion, evaluating and screening contacts exposed to a TB case, and outbreak investigation and control.

TB cases in Georgia can be reported electronically through the State Electronic Notifiable Disease Surveillance System (SendSS), a secure Web-based surveillance software developed by DPH, or by calling, mailing or faxing a report to public health authorities. Hospital infection control practitioners as well as public health nurses, outreach staff, epidemiologists, and communicable disease specialists involved in disease surveillance are encouraged to report TB through SendSS and register to become a SendSS user by logging into the system's website at: <https://sendss.state.ga.us> then selecting TB from the list of reportable diseases.

Public health authorities collect data on reported TB cases that include demographic, clinical, risk factor, and contact information. The data are analyzed to describe the distribution of the disease among Georgia's population, identify high risk groups and TB clusters, describe trends in morbidity, mortality and drug resistance patterns, treatment outcomes, and infection rates among contacts to TB cases. The data are used at state and local levels to guide policy and decision making, set priorities for program interventions, evaluate program performance for the prevention and control of TB in Georgia, and educate key stakeholders and the general public on TB. Georgia's TB surveillance data are transmitted electronically to the U.S. Centers for Disease Control and Prevention and become part of the national TB surveillance database.

Current Epidemiology of Tuberculosis in Georgia

In 2009, Georgia reported 415 new TB cases, representing a 13% decrease from 478 TB cases reported in 2008, the largest single-year decline reported since expanded TB surveillance began in 1993 (Figure 1). The TB case rate in Georgia decreased from 4.9 cases per 100,000 population in 2008 to 4.2 per 100,000 in 2009. Georgia has the ninth highest TB case rate among the 50 states of the United States.

Geographic Distribution

Among 159 counties in Georgia, four metropolitan Atlanta counties reported the highest number of TB cases in 2009: Fulton (81 cases), DeKalb (62), Gwinnett (58), and Cobb (18). Only three other counties reported 10 or more TB cases in 2009: Muscogee (13 cases), Clayton (11), and Chatham (10 cases). Ninety-three counties did not report a single case of TB, 48 counties reported fewer than five cases, and 11 counties reported between 5-9 cases in 2009 (Table 1, Figure 2).

Among Georgia's 18 Health Districts, which have oversight responsibility for public health in the 159 counties of the state, Fulton Health District reported the most TB number of TB cases in 2009 (81 cases), followed by Lawrenceville (63), and DeKalb (62). These three Health Districts accounted for 50% of TB cases reported in Georgia in 2009. The Health Districts with the highest TB case rates in 2009 were: DeKalb (8.3 per 100,000), Fulton (7.8 per 100,000), Columbus (6.4 per 100,000) and Lawrenceville (6.3 per 100,000) (Table 2, Figure 3). The Health Districts that reported the largest decreases in the number of cases from 2008-2009 included Lawrenceville (less 18 cases), DeKalb (less 16 cases) and Cobb (less 10 cases).

Figure 1. TB Cases and Case Rates Georgia, 1982-2009

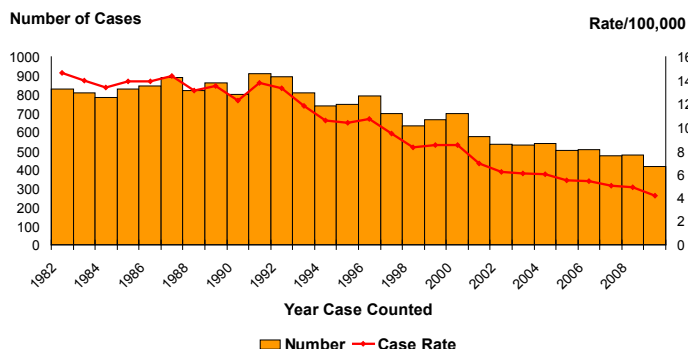


Figure 2. High TB Incidence Counties Georgia, 2009

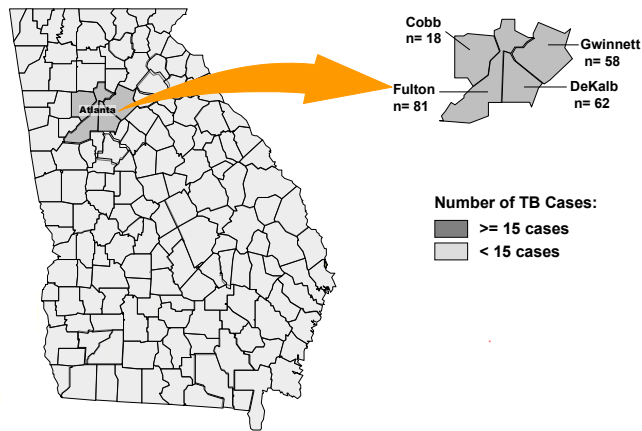
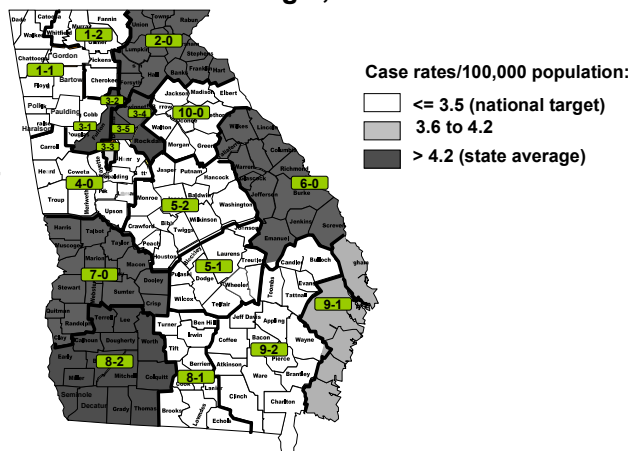


Figure 3. TB Case Rates by Health Districts Georgia, 2009



Sex and Age Distribution

TB occurred predominantly among men (66%) while the highest number and proportion of TB cases by age group for both sexes occurred among persons 25-44 years old (35%) (Figure 4). The highest case rate by age group was among persons 65 years and older (5.7 per 100,000) while the lowest was in children 5-14 years old (0.5 per 100,000) (Figure 5). The TB case rate for children younger than 5 years of age in Georgia decreased from 4.6 per 100,000 in 2008 to 2.3 per 100,000 in 2009.

Figure 4. TB Cases by Age Group and Sex Georgia, 2009

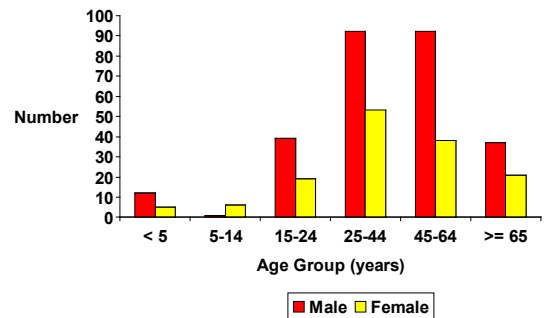


Figure 5. TB Case Rates* by Age Group 2005-2009, Georgia

Age Group	2005	2006	2007	2008	2009
< 5 yrs.	4.3	4.1	3.5	4.5	2.3
5-14 yrs.	0.7	0.8	0.8	0.6	0.5
15-24 yrs.	5.6	5.1	4.3	3.9	4.1
25-44 yrs.	6.6	6.9	6.0	6.3	5.1
45-64 yrs.	6.1	6.6	6.0	6.6	5.4
65+ yrs.	8.6	6.1	7.4	5.4	5.7

*Rates are per 100,000 population

Race/Ethnicity Distribution and TB Disparities

TB disproportionately affects racial/ethnic minorities in Georgia. In 2009, non-Hispanic blacks, Hispanics, and Asians accounted for 45%, 22% and 15% of TB cases in Georgia but only represented 30%, 8% and 3% of Georgia's population respectively (Figure 6). Non-Hispanic whites constituted 18% of cases in 2009. The highest TB case rate among race/ethnic groups was in Asians (21.7 per 100,000), followed by Hispanics (11.2 per 100,000), and non-Hispanic blacks (6.2 per 100,000) (Figure 7). The black non-Hispanic TB case rate in 2009 represents an almost 80% drop from the TB case rate in 1993 (30.6 per 100,000) in this population. The black non-Hispanic TB case rate, however, was still five times higher than the white non-Hispanic TB case rate (1.2 per 100,000) in 2009 (Figure 8).

Figure 6. TB Cases by Race/Ethnicity Georgia, 1999 and 2009

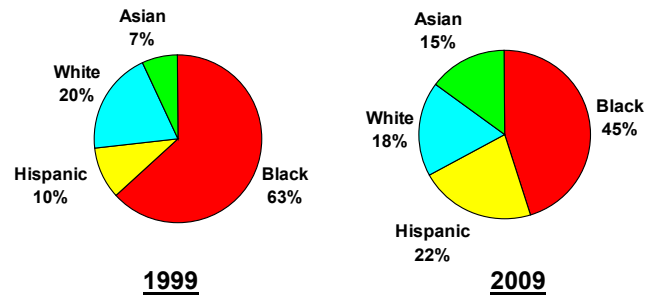
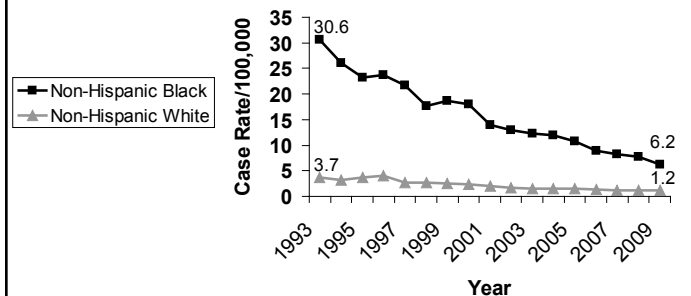


Figure 7. TB Case Rates* by Race/Ethnicity Georgia, 2005-2009

Race/ Ethnicity	2005	2006	2007	2008	2009
Asian, non-Hispanic	17.8	26.4	21.5	27.2	29.7
Hispanic, All races	13.6	16.5	12.9	11.8	11.2
Black, non-Hispanic	10.8	9.0	8.3	7.8	6.2
White, non-Hispanic	1.5	1.3	1.2	1.2	1.2

*Rates are per 100,000 population

Figure 8. TB Case Rates in non-Hispanic Blacks and Whites, Georgia, 1993-2009



High-Risk Populations

Foreign-born

The number of TB cases in Georgia among persons born outside of the United States increased five-fold from 1993 to 2008 (from 40 to 197 cases), then decreased 11% from 2008 to 2009. TB cases among foreign-born persons accounted for 42% of TB cases in Georgia in 2009 compared to 41% in 2008. Most foreign-born cases reported in 2009 came from Mexico (28%), Vietnam (8%), and India (7%) - countries where TB is an endemic disease (Figures 9-10). Among foreign-born cases, 50% were diagnosed in the first four years of their arrival in the U.S.

In 2009, the majority of foreign-born TB cases were reported from four Health Districts: Lawrenceville (45 cases), DeKalb (37), Fulton (23), and Cobb (15). Among these four Health Districts, foreign-born TB cases accounted for more than half of the TB cases in Lawrenceville (71%), Cobb (71%) and DeKalb (60%). Foreign-born TB cases in the Fulton Health District accounted for 28% of reported TB cases in Fulton.

HIV co-infection

All TB patients need to be tested for HIV infection because TB treatment may change when antiretroviral therapy for HIV is given, and active TB often accelerates the natural progression of HIV infection. Among 376 cases with known HIV status in 2009, 15% were HIV positive compared to 12% in 2008 (Figure 11). HIV status was reported in 91% of cases compared to 86% in 2008. Among the high-risk age group of adults 25-44 years of age, HIV reporting increased from 94% in 2008 to 96% in 2009. Among 56 HIV co-infected TB cases in 2009, 82% were non-Hispanic blacks, 71% were male, and 54% were 25-44 years old.

Figure 9. US-born and Foreign-born TB Cases Georgia, 1993-2009

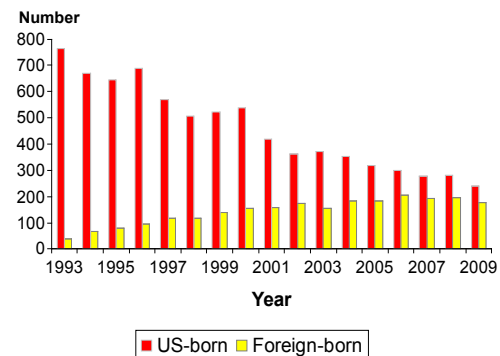


Figure 10. Percent of Foreign-born TB Cases (n=176) by Country of Origin, Georgia, 2009

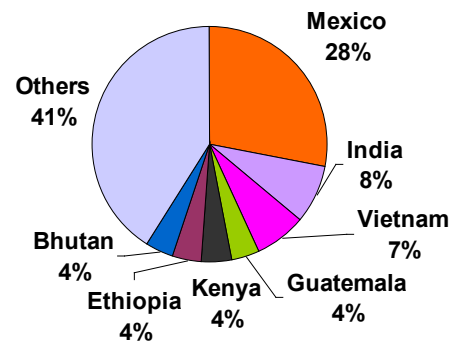
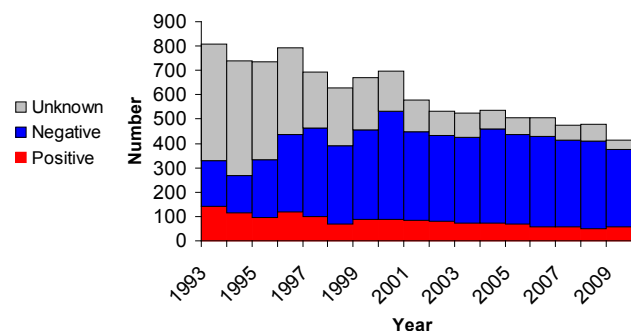


Figure 11. HIV Status of TB Cases Georgia, 1993-2009



Congregate Settings and Substance Abuse

Persons residing in crowded congregate settings such as homeless shelters, prisons, and nursing homes are at risk for acquiring TB. In 2009, 47 (11%) cases were homeless, 25 (6%) were residents of correctional facilities, and 7 (2%) were residents of long-term care facilities. Of the 25 cases incarcerated in correctional facilities, 11 were inmates in county jails, nine in state prisons, and five in the Immigration and Custom Enforcement Detention Center in Stewart County.

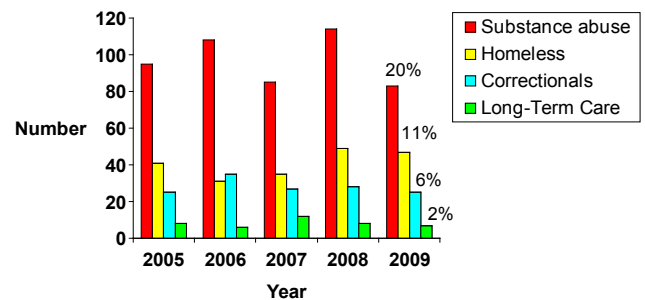
Substance abuse is the most commonly reported behavioral risk factor among patients with TB in the United States. TB patients who abuse substances often experience treatment failure and remain infectious longer because treatment failure presumably extends periods of infectiousness. In Georgia, abuse of either illicit drugs or alcohol was reported in 83 (20%) cases in 2009 (Table 3, Figure 12).

Pediatric TB

TB in children is considered a sentinel public health event because it often indicates recent transmission from an infectious adult case. Additionally, potentially lethal forms of TB such as TB meningitis or miliary TB can develop in very young children. In 2009, children younger than 15 years old comprised 6% of Georgia TB cases; 17 cases (2.3 per 100,000) were reported in children younger than 5 years old, seven cases (0.5 per 100,000) were reported in children 5-14 years old. Two children had TB meningitis.

Young children are a priority for the Georgia TB program. All CDC/American Thoracic Society recommendations for treatment of pediatric TB cases and the follow-up of children, who are contacts to TB cases, including directly observed preventive therapy for children < 5 years old, are being followed.

Figure 12. TB in Other High-Risk Populations Georgia, 2005-2009



Drug Resistance

Of 294 culture-confirmed cases in 2009, 286 (97%) were tested for drug susceptibility to the three first line anti-TB medications: isoniazid (INH), rifampin (RIF), and ethambutol (EMB). Of 286 tested isolates from cases with no previous history of TB, 39 (14%) had primary resistance to INH, 5 (1.7%) to RIF, and 3 (1.0%) to EMB (Table 4). Two multidrug-resistant TB (MDR-TB, i.e. TB resistant to at least INH and RIF) cases were reported in 2009. The percentage of cases with primary INH resistance (INH-R) ranged from 5% to 9% in the past 5 years while an average of one MDR-TB case per year was reported over that same time period (Figure 13).

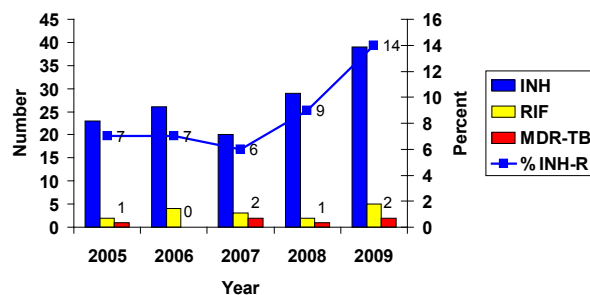
Indicators of Infectiousness

Persons with pulmonary or laryngeal TB have the potential of infecting others with TB, and infectiousness is higher if their sputum smears are positive for acid-fast bacilli (AFB), sputum cultures are positive for *Mycobacterium tuberculosis*, or cavitory lesions are present on chest radiography. In 2009, 80% of cases had pulmonary TB; of these, 65% had sputum cultures that were positive for *Mycobacterium tuberculosis*, 46% had positive sputum AFB smears, and 31% showed radiographic evidence of cavitory lesions.

Initial Diagnosis, Health Provider Data, and Directly Observed Therapy

In Georgia, majority of TB patients are initially diagnosed in a hospital and are followed up by county health departments after discharge to continue their TB treatment. In 2009, 274 (66%) of TB patients were initially reported to public health authorities by 89 different hospitals in Georgia. The hospitals in Georgia that admitted the most number of TB patients in 2009 were Grady Memorial Hospital (51 patients), Gwinnett Medical Center (18), St. Joseph's Hospital of Atlanta (11), DeKalb Medical Center (10), Medical College of Georgia (10), and Northside Hospital (10). County health departments provided case management for 87% of TB patients and 13% of cases were cared for solely by a private physician. County health department staff provide directly observed therapy (DOT) to TB patients, which entails watching a patient swallow every dose of their TB medications for at least 6 months. In 2007, among 401 patients with case completion data, 82% received TB treatment entirely by DOT, 14% were treated by a combination of DOT and self-administered therapy, and only 4% self-administered their medications for the entire duration of their treatment.

Figure 13. Drug Resistance and MDR-TB Georgia, 2005-2009



TB Mortality

Sixteen persons died of TB in GA in 2007, the most recent year with available mortality data. The age-adjusted TB mortality rate was 0.2 per 100,000. From 2003 to 2007, an average of 19 people died of TB each year (range = 15-31).

TB Contact Investigations and Latent TB Infection

Public health authorities routinely conduct a contact investigation among persons exposed to a TB case to identify secondary TB cases and contacts with latent TB infection (LTBI). Index TB cases with positive acid-fast bacillus (AFB) sputum-smear results or pulmonary cavities have the highest priority for investigation. During a contact investigation, public health staff ask recent contacts to a case if they have TB-like symptoms, administer a TB skin test (TST), repeat the TST after 8-10 weeks if the initial TST is negative, and have a chest radiology exam performed if the TST is positive (≥ 5 millimeters induration). Persons with LTBI have a positive TST, but are asymptomatic and have a normal chest radiology exam. They are not contagious but have a 10% chance of developing TB disease later in life if they do not receive treatment for LTBI.

Among 4,917 identified contacts of TB cases reported in 2008, the most recent year with completed contact investigation data, 4,005 (82%) were completely evaluated for TB disease and LTBI (Table 8). Of these evaluated contacts, 73

(2%) had TB disease and 942 (24%) had LTBI (Table 9).

TB Program Objectives

Objective 1: 90% of Georgia TB patients will complete a course of TB treatment within 12 months of starting treatment.

Among 416 TB patients started on TB treatment in 2008 who were slated to complete treatment in 2009, 93% completed their full course of treatment; however, only 85% of patients eligible for a 12-month treatment course completed treatment in 12 months (Table 5, 6). Timely treatment completion was much lower than the state average among inmates of correctional institutions (64%), HIV-infected individuals (70%), Hispanics (73%), foreign-born persons (79%), and persons abusing illegal drugs (82%). Interventions need to focus on these populations to improve timely treatment completion. Though this objective was not achieved, timely treatment completion has improved since 1994, when directly observed therapy became the recommended standard of care for TB treatment in Georgia (Figure 14).

Objective 2: 95% of TB cases with sputum smears that are positive for acid-fast bacillus will have contacts identified.

In 2009, 147 (97%) of 152 TB patients with positive acid-fast bacillus (AFB) sputum smears had contacts elicited, exceeding the program target of 95%. Of five AFB sputum-smear positive TB patients with no contacts elicited during this time period, one case was uncooperative and refused to identify contacts and data on the reason why no contacts were elicited were missing in four cases.

Objective 3: At least 70 percent of persons with latent TB infection (LTBI) who started therapy for latent TB infection (LTBI) will complete LTBI therapy.

In 2008, among 942 contacts with LTBI, 588 (62%) started LTBI therapy. Among 550 contacts who started LTBI treatment and had data on treatment outcomes, 371 (68%) completed LTBI treatment, 72 (13%) chose to stop treatment, 60 (11%) were lost to follow-up, 18 (3%) moved, 13 (2%) stopped treatment because of a provider's decision, 10 (2%) had adverse reactions to the medications, 4 (1%) developed active TB, and 2 (0.4%) died before completing LTBI treatment (Table 11, Figure 15).

Figure 14. Timely TB Treatment Completion and Directly Observed Therapy (DOT) Georgia, 1993-2008

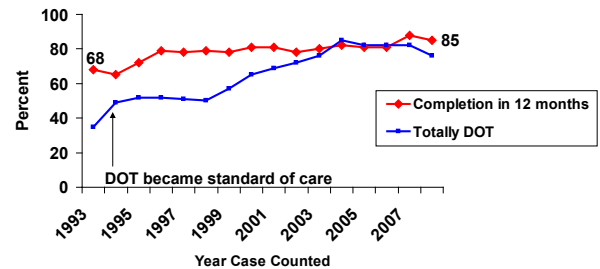
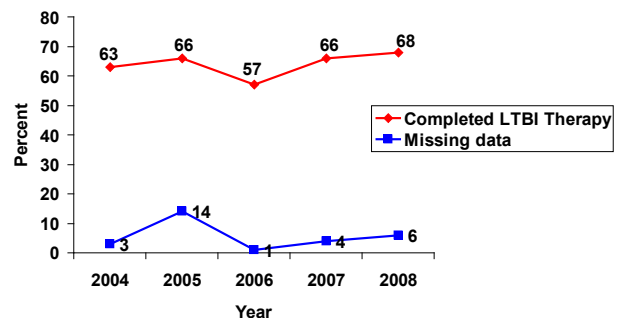
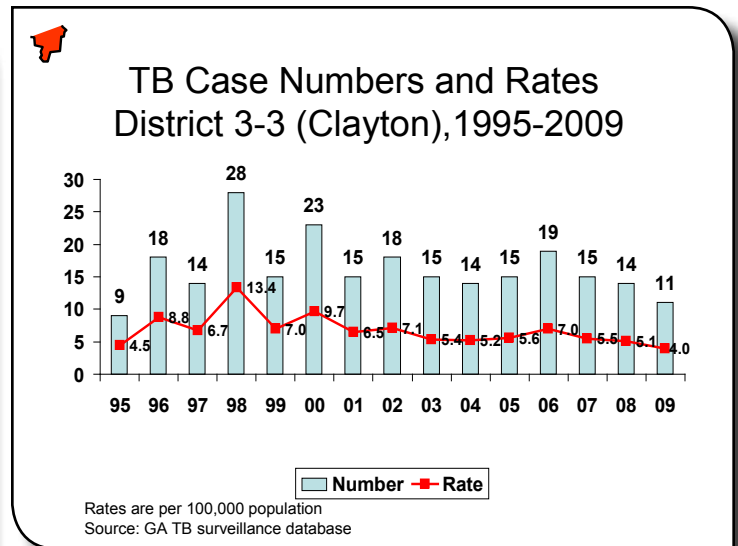
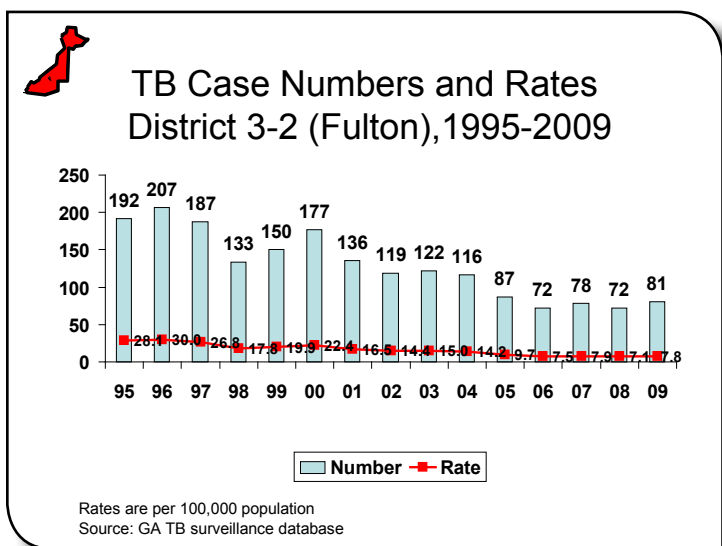
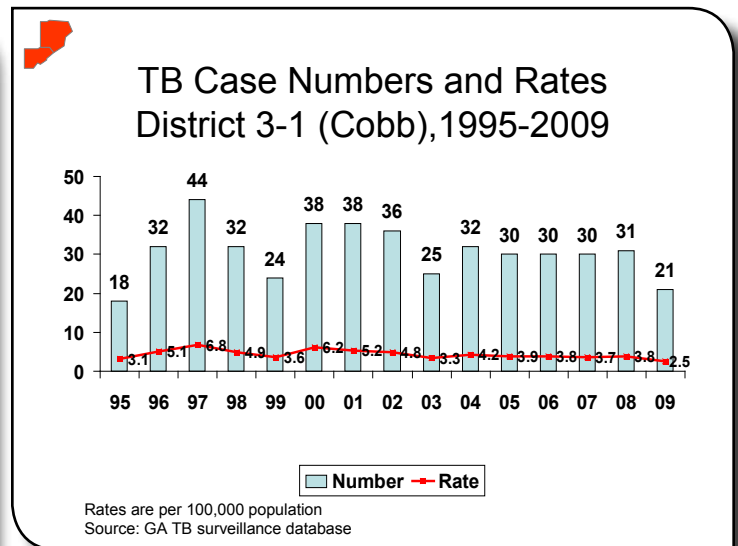
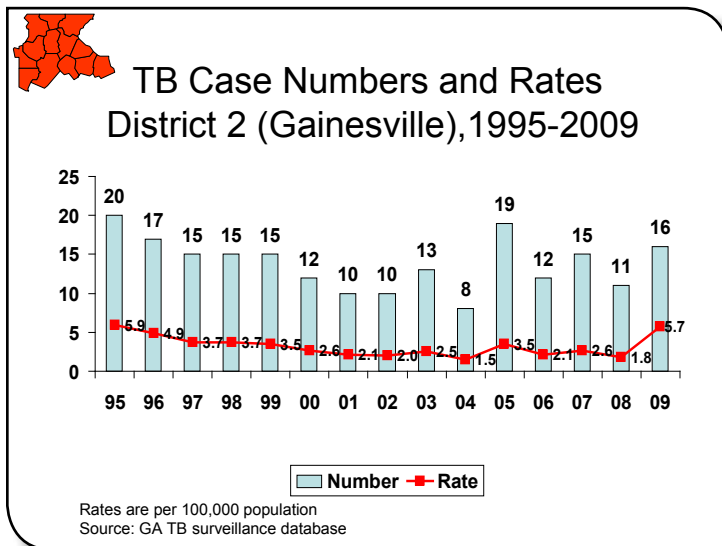
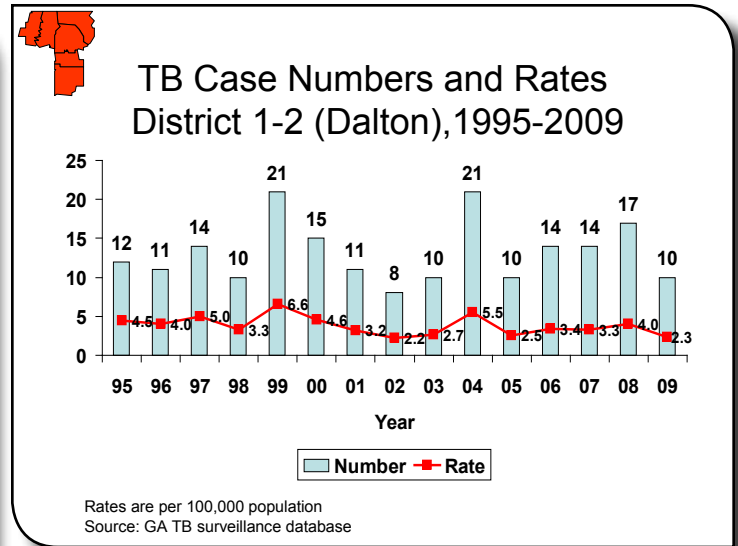
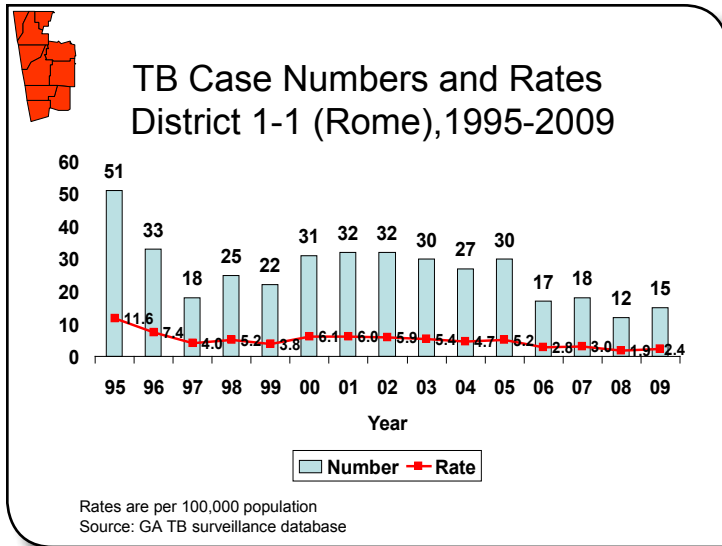


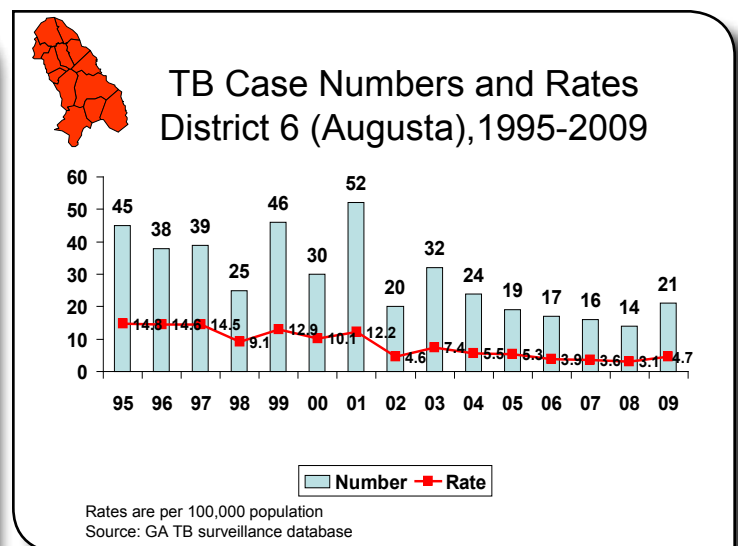
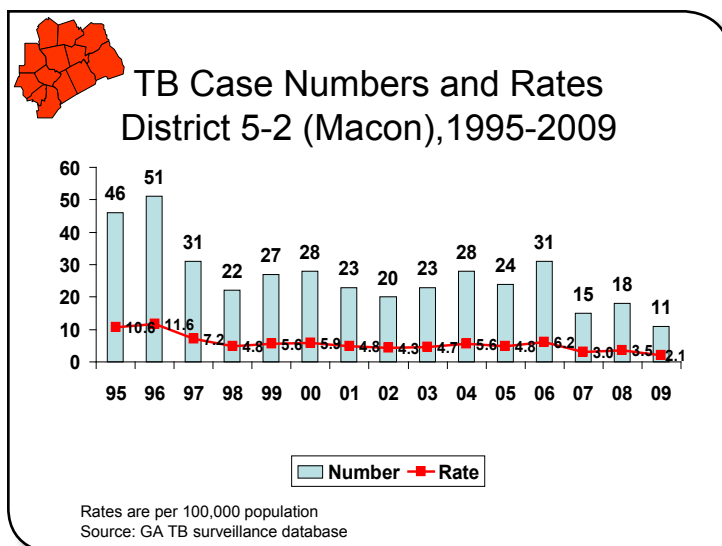
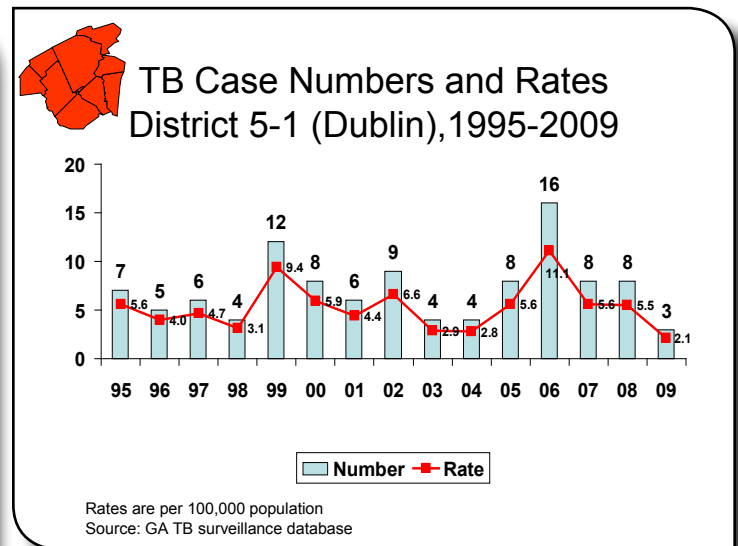
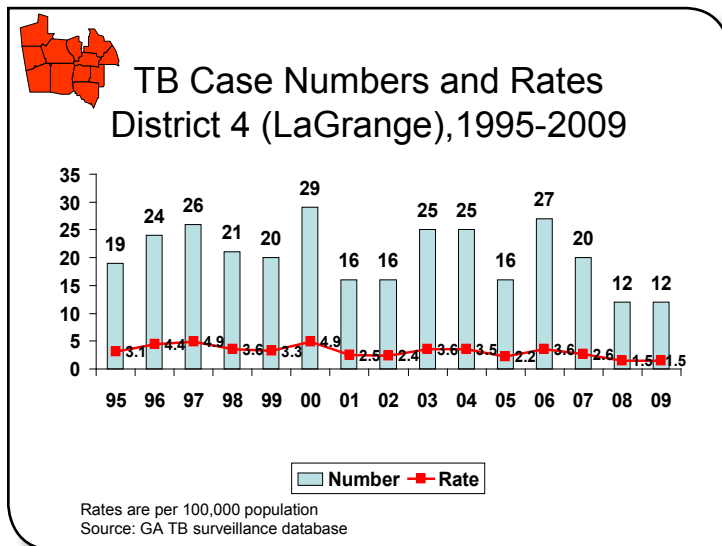
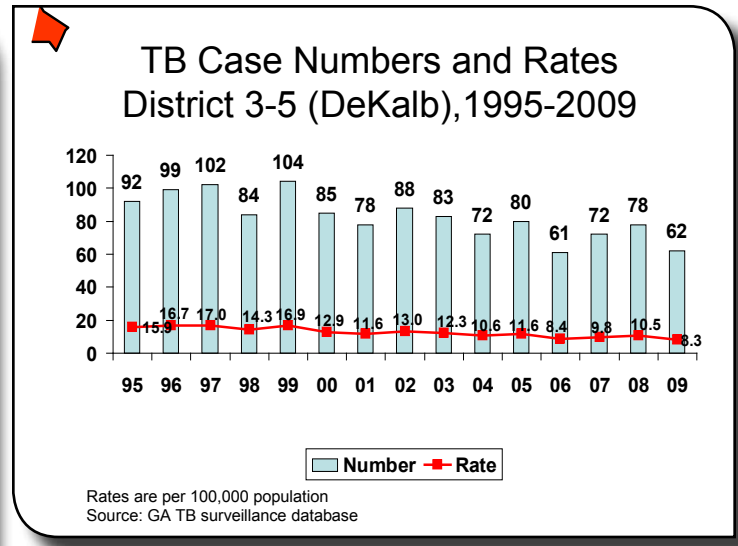
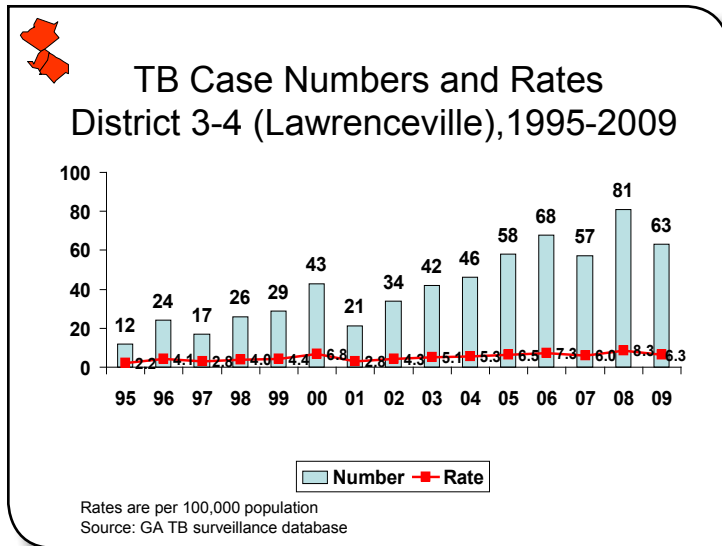
Figure 15. Completion of Latent TB Infection (LTBI) Therapy, Georgia, 2004-2008



Tuberculosis Morbidity Trends by Health District Georgia, 1995-2009



Tuberculosis Morbidity Trends by Health District Georgia, 1995-2009



Tuberculosis Morbidity Trends by Health District Georgia, 1995-2009

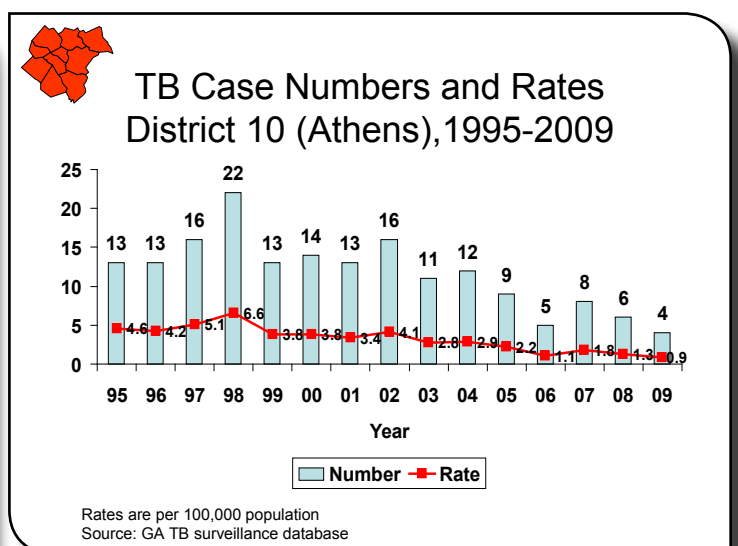
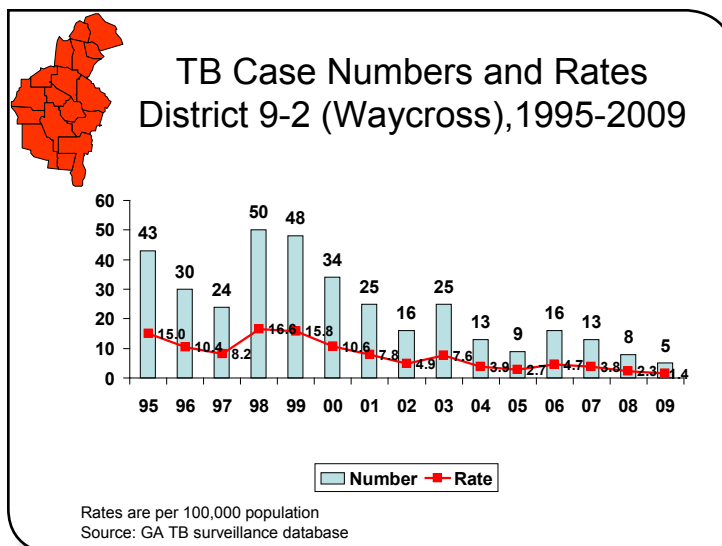
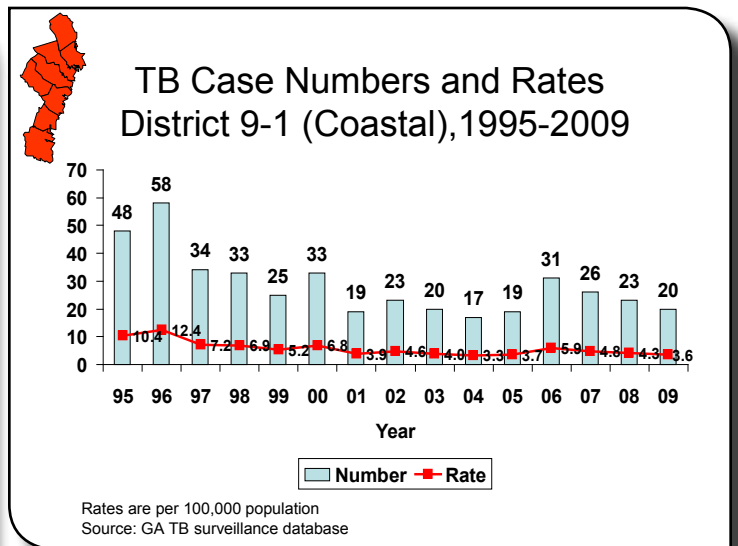
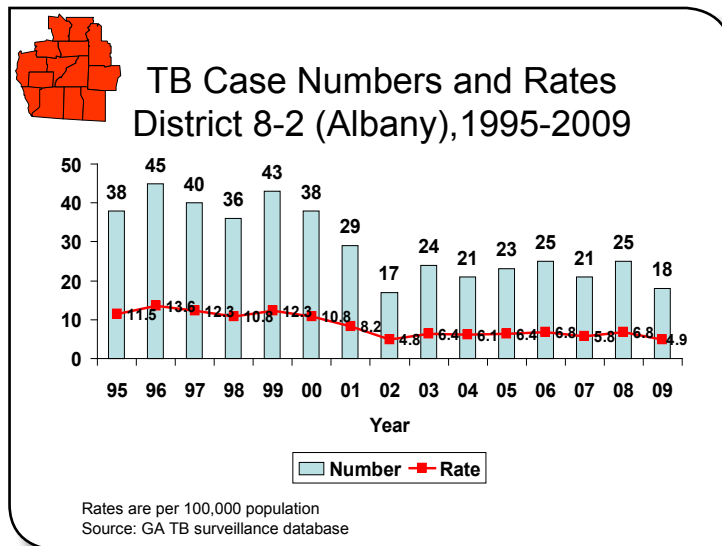
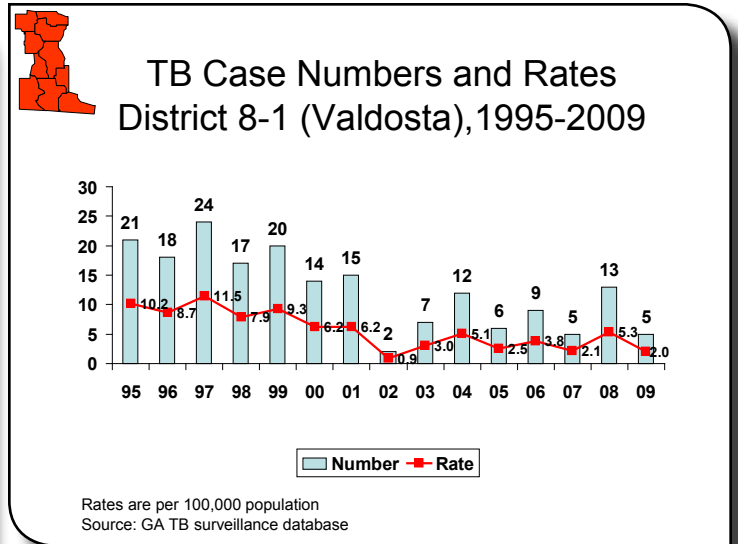
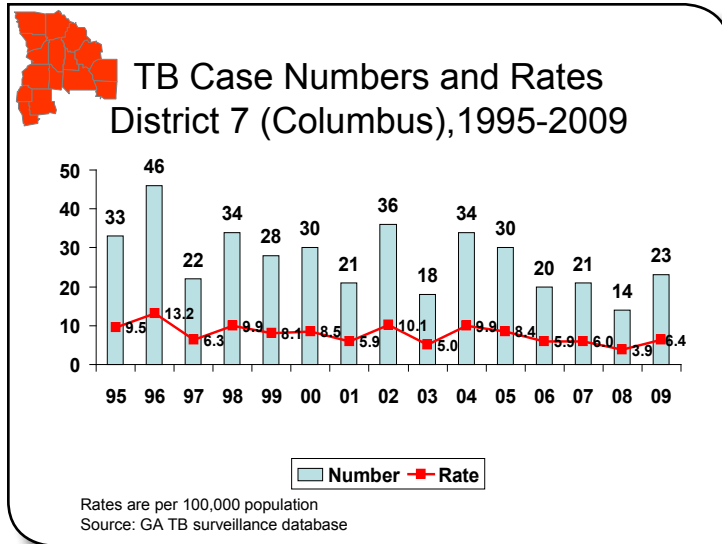


Table 1. Number of TB Cases and TB Case Rates per 100,000 population by County, Georgia, 2008- 2009

COUNTY	2008		2009	
	Number of cases	Case Rate	Number of cases	Case Rate
Appling	0	0	<5	--
Atkinson	<5	--	<5	--
Bacon	0	0	0	0
Baker	0	0	0	0
Baldwin	<5	--	0	0
Banks	0	0	0	0
Barrow	<5	--	<5	--
Bartow	<5	--	<5	--
Ben Hill	0	0	0	0
Berrien	<5	--	0	0
Bibb	7	4.5	5	3.2
Bleckley	<5	--	0	0
Brantley	0	0	0	0
Brooks	<5	--	0	0
Bryan	0	0	0	0
Bulloch	<5	--	<5	--
Burke	0	0	<5	--
Butts	<5	--	<5	--
Calhoun	<5	--	0	0
Camden	0	0	<5	--
Candler	0	0	0	0
Carroll	<5	--	<5	--
Catoosa	<5	--	<5	--
Charlton	0	0	0	0
Chatham	12	4.8	10	3.9
Chattahoochee	0	0	0	0
Chattooga	<5	--	0	0
Cherokee	5		<5	--
Clarke	<5	--	<5	--
Clay	0	0	0	0
Clayton	14	5.1	11	4.0
Clinch	<5	--	0	0
Cobb	27	3.9	18	2.5
Coffee	0	0	0	0
Colquitt	6	13.2	<5	--
Columbia excludes ASMP	5	4.5	6	5.3
ASMP only	11	na	9	na
Cook	0	0	0	0
Coweta	<5	--	0	0
Crawford	0	0	0	0

COUNTY	2008		2009	
	Number of cases	Case Rate	Number of cases	Case Rate
Crisp	<5	--	<5	--
Dade	0	0	0	0
Dawson	0	0	0	0
Decatur	0	0	<5	--
DeKalb	78	10.5	62	8.3
Dodge	<5	--	0	0
Dooly	<5	--	<5	--
Dougherty	10	10.4	6	6.3
Douglas	<5	--	<5	--
Early	<5	--	0	0
Echols	<5	--	0	0
Effingham	<5	--	0	0
Elbert	<5	--	<5	--
Emanuel	<5	--	0	0
Evans	0	0	0	0
Fannin	0	0	<5	--
Fayette	0	0	<5	--
Floyd	<5	--	<5	--
Forsyth	<5	--	<5	--
Franklin	0	0	0	0
Fulton	72	7.1	81	7.8
Gilmer	<5	--	<5	--
Glascocock	0	0	<5	--
Glynn	5	6.6	0	0
Gordon	<5	--	0	0
Grady	<5	--	5	19.9
Greene	0	0	<5	--
Gwinnett	68	8.6	58	7.2
Habersham	0	0	0	0
Hall	<5	--	9	4.8
Hancock	<5	--	0	0
Haralson	0	0	0	0
Harris	<5	--	0	0
Hart	0	0	0	0
Heard	0	0	0	0
Henry	<5	--	0	0
Houston	6	4.5	5	3.8
Irwin	0	0	0	0
Jackson	0	0	0	0
Jasper	0	0	<5	--
Jeff Davis	0	0	0	0

COUNTY	2008		2009	
	Number of cases	Case Rate	Number of cases	Case Rate
Jefferson	0	0	0	0
Jenkins	0	0	0	0
Johnson	0	0	0	0
Jones	0	0	0	0
Lamar	0	0	0	0
Lanier	0	0	0	0
Laurens	<5	--	<5	--
Lee	0	0	0	0
Liberty	<5	--	6	9.6
Lincoln	<5	--	0	0
Long	0	0	<5	--
Lowndes	<5	--	<5	--
Lumpkin	0	0	<5	--
Macon	0	0	<5	--
Madison	0	0	0	0
Marion	0	0	0	0
McDuffie	0	0	0	0
McIntosh	0	0	0	0
Meriwether	<5	--	0	0
Miller	0	0	<5	--
Mitchell	5	20.8	<5	--
Monroe	<5	--	0	0
Montgomery	<5	--	0	0
Morgan	0	0	0	0
Murray	<5	--	<5	--
Muscogee	8	4.3	13	6.8
Newton	8	8.1	<5	--
Oconee	0	0	0	0
Oglethorpe	0	0	0	0
Paulding	0	0	<5	--
Peach	0	0	0	0
Pickens	<5	--	0	0
Pierce	0	0	0	0
Pike	0	0	0	0
Polk	<5	--	<5	--
Pulaski	0	0	0	0
Putnam	0	0	0	0
Quitman	0	0	0	0
Rabun	0	0	0	0
Randolph	0	0	0	0
Richmond	5	2.5	8	4.0

COUNTY	2008		2009	
	Number of cases	Case Rate	Number of cases	Case Rate
Rockdale	5	6.0	<5	--
Schley	0	0	0	0
Screven	0	0	5	33.2
Seminole	0	0	0	0
Spalding	<5	--	<5	--
Stephens	<5	--	0	0
Stewart excludes SDC / SDC only	0/10	na	0/5	0/na
Sumter	<5	--	<5	--
Talbot	0	0	0	0
Taliaferro	0	0	0	0
Tattnall	0	0	0	0
Taylor	<5	--	0	0
Telfair	<5	--	<5	--
Terrell	0	0	0	0
Thomas	<5	--	<5	--
Tift	<5	--	<5	--
Toombs	<5	--	0	0
Towns	0	0	0	0
Treutlen	0	0	0	0
Troup	<5	--	6	9.3
Turner	<5	--	<5	--
Twiggs	0	0	0	0
Union	<5	--	0	0
Upson	0	0	0	0
Walker	0	0	5	7.7
Walton	<5	--	0	0
Ware	0	0	<5	--
Warren	0	0	0	0
Washington	0	0	0	0
Wayne	0	0	0	0
Webster	0	0	0	0
Wheeler	0	0	<5	--
White	<5	--	<5	--
Whitfield	8	8.5	<5	--
Wilcox	0	0	0	0
Wilkes	0	0	0	0
Wilkinson	0	0	0	0
Worth	0	0	0	0
GEORGIA	478	4.9	415	4.2

* In counties where one to four cases were reported, “< 5” is used to represent the number of reported cases, and the case rate is not calculated.

Table 2. Number of TB Cases and TB Case Rates per 100,000 population by Health District, Georgia, 2008- 2009

Health District	2008		2009	
	Number of cases	Case rate	Number of Cases	Case rate
1.1 Rome	12	1.9	15	2.4
1.2 Dalton	17	4.0	10	2.3
2.0 Gainesville	11	1.8	16	5.7
3.1 Cobb	31	3.8	21	2.5
3.2 Fulton	72	7.1	81	7.8
3.3 Clayton	14	5.1	11	4.0
3.4 Lawrenceville	81	8.3	63	6.3
3.5 DeKalb	78	10.5	62	8.3
4.0 LaGrange	12	1.5	12	1.5
5.1 Dublin	8	5.5	3	2.1
5.2 Macon	18	3.5	11	2.1
6.0 Augusta	14	3.1	21	4.7
Augusta State Medical Prison	11	na	9	na
7.0 Columbus	14	3.9	23	6.4
ICE Detention Center	10	46.1	5	na
8.1 Valdosta	13	5.3	5	2.0
8.2 Albany	25	6.8	18	4.9
9.1 Coastal	23	4.3	20	3.6
9.2 Waycross	8	2.3	5	1.4
10 Athens	6	1.3	4	0.9
Total	478	4.9	415	4.2

Table 3. Percentage of TB Cases with Risk Factors for TB by Health District, Georgia, 2009

Health District	Foreign-born %	HIV Infected %	Homeless %	Inmate %	Nursing Home %	Substance Abuse %
1.1 Rome	13	0	0	0	7	29
1.2 Dalton	70	0	0	0	0	20
2.0 Gainesville	44	0	0	0	0	13
3.1 Cobb	71	10	0	5	0	0
3.2 Fulton	28	28	39	4	1	36
3.3 Clayton	64	18	9	0	0	0
3.4 Lawrenceville	71	8	2	0	0	6
3.5 DeKalb	60	14	6	5	3	11
4.0 LaGrange	8	8	8	0	8	33
5.1 Dublin	100	0	0	33	0	33
5.2 Macon	18	9	0	0	0	36
6.0 Augusta	33	25	10	5	5	5
ASMP inmates	22	22	11	100	0	44
7.0 Columbus	13	9	4	0	4	44
ICE detainees	100	0	0	100	0	0
8.1 Valdosta	60	0	0	0	0	0
8.2 Albany	28	11	22	11	0	28
9.1 Coastal	5	10	5	0	0	25
9.2 Waycross	0	0	0	0	0	20
10 Athens	25	0	0	0	0	0
GEORGIA	42	15	11	6	2	20

Table 4. Primary Resistance to First-line Anti-TB Medications by Health District, Georgia, 2009

TB Drug HEALTH DISTRICT	Isoniazid		Rifampin		Ethambutol	
	No.	%	No.	%	No.	%
1.1 Rome	1	8	0	0	0	0
1.2 Dalton	0	0	0	0	0	0
2.0 Gainesville	0	0	0	0	0	0
3.1 Cobb	1	7	0	0	1	7
3.2 Fulton	19	33	1	2	0	0
3.3 Clayton	0	0	0	0	0	0
3.4 Lawrenceville	7	19	1	3	1	3
3.5 DeKalb	1	3	0	0	0	0
4.0 LaGrange	0	0	0	0	0	0
5.1 Dublin	0	0	0	0	0	0
5.2 Macon	0	0	1	14	0	0
6.0 Augusta & ASMP	4	13	1	3	1	3
7.0 Columbus & ICE	3	11	0	0	0	0
8.1 Valdosta	0	0	0	0	0	0
8.2 Albany	1	6	0	0	0	0
9.1 Coastal	0	0	0	0	0	0
9.2 Waycross	1	20	0	0	0	0
10 Athens	0	0	0	0	0	0
GEORGIA	39	14	5	2	3	1

Table 5. Completion of Cases' TB Treatment by Health District, Georgia, 2007-2008

HEALTH DISTRICT	2007		2008	
	No. Cases that Completed Treatment (Tx) / No. Cases Started on Treatment	%	No. Cases that Completed Tx/No. Cases Started on Tx	%
1.1 Rome	15/15	100	9/9	100
1.2 Dalton	10/11	91	15/16	94
2.0 Gainesville	14/14	100	9/10	90
3.1 Cobb	28/28	100	22/22	100
3.2 Fulton	68/69	99	64/66	97
3.3 Clayton	12/12	100	10/11	91
3.4 Lawrenceville	47/48	98	61/69	88
3.5 DeKalb	59/63	94	66/68	97
4.0 LaGrange	17/18	94	7/8	88
5.1 Dublin	7/7	100	7/7	100
5.2 Macon	9/10	90	16/16	100
6.0 Augusta	10/12	83	11/12	92
ASMP	11/12	92	11/11	100
7.0 Columbus	9/11	82	12/12	100
ICE	1/5	20	0/5	0
8.1 Valdosta	3/3	100	13/13	100
8.2 Albany	17/17	100	19/22	86
9.1 Coastal	23/24	96	19/21	90
9.2 Waycross	8/10	80	4/6	67
10 Athens	8/8	100	6/6	100
GEORGIA	376/397	95	981/410	93

Table 6. Timely Completion of Cases' TB Tx by Health District, GA, 2007-2008

HEALTH DISTRICT	2007		2008	
	No. Cases Completed Tx in 12 months / No. Started Tx	%	No. Cases Completed Tx in 12 months / No. Started Tx	%
1.1 Rome	14/15	93	7/9	78
1.2 Dalton	10/11	91	14/16	88
2.0 Gainesville	13/14	93	7/10	70
3.1 Cobb	24/28	86	10/22	45
3.2 Fulton	66/69	96	60/64	94
3.3 Clayton	11/12	92	10/11	91
3.4 Lawrenceville	43/48	90	54/69	78
3.5 DeKalb	51/63	81	60/68	88
4.0 LaGrange	16/18	89	7/8	88
5.1 Dublin	7/7	100	7/7	100
5.2 Macon	6/10	60	14/16	88
6.0 Augusta	10/12	83	11/12	92
ASMP	10/12	83	8/11	73
7.0 Columbus	8/11	73	10/12	92
ICE	1/5	20	0/5	0
8.1 Valdosta	3/3	100	13/13	100
8.2 Albany	15/17	88	19/22	86
9.1 Coastal	21/24	88	18/21	86
9.2 Waycross	8/10	80	4/6	67
10 Athens	8/8	100	6/6	100
GEORGIA	345/397	87	349/410	85

Table 7. Sputum Smear Positive (SSP) Cases with Contacts Identified by Health District, Georgia, 2007-2008

HEALTH DISTRICT	2007		2008	
	No. SSP Cases with Contacts Identified / No. SSP Cases	%	No. SSP Cases with Contacts Identified / No. SSP Cases	%
1.1 Rome	6/6	100	4/5	80
1.2 Dalton	5/5	100	5/5	100
2.0 Gainesville	5/5	100	2/2	100
3.1 Cobb	10/10	100	8/8	100
3.2 Fulton	34/34	100	32/34	94
3.3 Clayton	5/5	100	3 / 4	75
3.4 Lawrenceville	14/21	67	16/21	76
3.5 DeKalb	23/26	88	22/25	88
4.0 LaGrange	7/7	100	3/3	100
5.1 Dublin	2/2	100	0/0	--
5.2 Macon	4/4	100	10/10	100
6.0 Augusta	11/11	100	8/8	100
7.0 Columbus	13/13	100	8/8	100
8.1 Valdosta	3/3	100	5/5	100
8.2 Albany	7/7	100	10/10	100
9.1 Coastal	11/11	100	10/10	100
9.2 Waycross	4/4	100	4/4	100
10 Athens	4/4	100	4/4	100
GEORGIA	165/179	92	153/167	92

Table 8. Completely Evaluated Contacts by Health District, Georgia, 2007-2008

HEALTH DISTRICT	2007		2008	
	No. Contacts that were Completely Evaluated / No. Contacts Identified	%	No. Contacts that were Completely Evaluated / No. Contacts Identified	%
1.1 Rome	190/209	91	73/83	88
1.2 Dalton	107/122	88	195/216	90
2.0 Gainesville	76/89	85	51/66	77
3.1 Cobb	466/541	86	102/130	78
3.2 Fulton	1446/1606	90	1101/1298	85
3.3 Clayton	80/89	90	312/342	91
3.4 Lawrenceville	182/226	80	233/355	66
3.5 DeKalb	193/241	80	386/593	65
4.0 LaGrange	101/124	82	86/98	88
5.1 Dublin	54/54	100	92/95	97
5.2 Macon	76/88	86	116/131	88
6.0 Augusta	412/457	90	568/695	82
7.0 Columbus	291/322	90	136/152	90
8.1 Valdosta	29/32	91	49/56	88
8.2 Albany	300/332	90	352/432	82
9.1 Coastal	147/161	91	89/104	86
9.2 Waycross	66/75	88	34/36	94
10 Athens	43/49	88	29/34	85
GEORGIA	4265/4824	88	4005/4917	82

Table 9. Contacts with Latent TB Infection by Health District, Georgia, 2007-2008

HEALTH DISTRICT	2007		2008	
	No. Contacts with LTBI/ No. Contacts Completely Evaluated	%	No. Contacts with LTBI/ No. Contacts Completely Evaluated	%
1.1 Rome	85/190	45	19/73	26
1.2 Dalton	28/107	26	66/195	34
2.0 Gainesville	11/76	14	17/51	33
3.1 Cobb	68/466	15	37/102	36
3.2 Fulton	207/1446	14	238/1101	22
3.3 Clayton	23/80	29	84/312	27
3.4 Lawrenceville	93/182	51	90/233	39
3.5 DeKalb	79/193	41	87/386	22
4.0 LaGrange	16/101	16	22/86	26
5.1 Dublin	9/54	17	15/92	16
5.2 Macon	16/76	21	18/116	16
6.0 Augusta	78/412	19	83/695	12
7.0 Columbus	86/291	30	26/136	19
8.1 Valdosta	7/29	24	15/49	31
8.2 Albany	45/300	15	90/352	26
9.1 Coastal	46/147	31	23/89	26
9.2 Waycross	23/66	35	6/34	18
10 Athens	15/43	35	6/29	21
GEORGIA	935/4265	22	942/4005	24

**Table 10. Infected Contacts Started on LTBI Treatment by Health District
Georgia, 2007-2008**

HEALTH DISTRICT	2007		2008	
	No. Infected Contacts on LTBI Treatment / No. Infected Contacts	%	No. Infected Contacts on LTBI Treatment / No. Infected Contacts	%
1.1 Rome	79/85	93	13/19	68
1.2 Dalton	27/28	96	51/66	77
2.0 Gainesville	9/11	82	16/17	94
3.1 Cobb	43/68	63	31/37	84
3.2 Fulton	124/207	60	149/238	63
3.3 Clayton	15/23	65	49/84	58
3.4 Lawrenceville	70/93	75	47/90	52
3.5 DeKalb	43/79	54	52/87	60
4.0 LaGrange	15/16	94	18/22	82
5.1 Dublin	8/9	89	6/15	40
5.2 Macon	14/16	88	11/18	61
6.0 Augusta	34/78	44	36/83	43
7.0 Columbus	50/86	58	17/26	65
8.1 Valdosta	7/7	100	14/15	93
8.2 Albany	30/45	67	54/90	60
9.1 Coastal	34/46	74	17/23	74
9.2 Waycross	19/23	83	2/6	33
10 Athens	14/15	93	5/6	83
GEORGIA	635/935	68	588/942	62

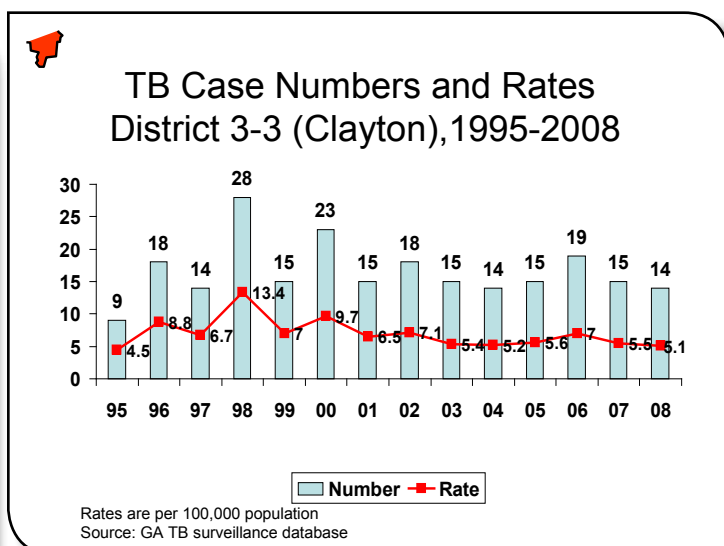
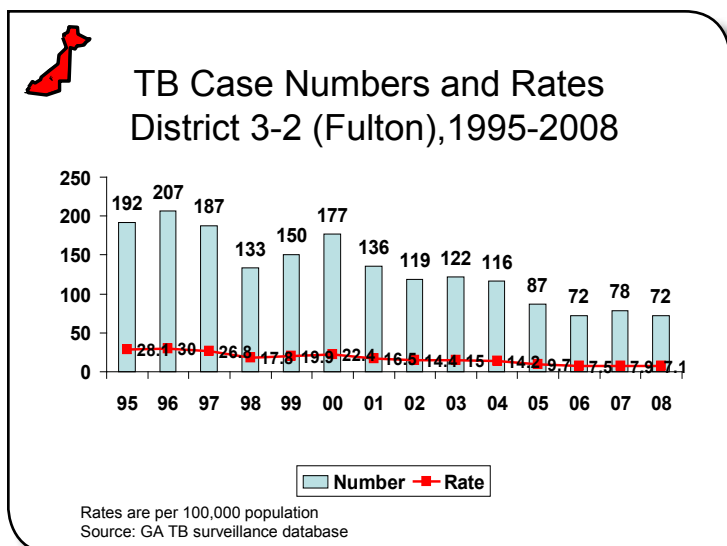
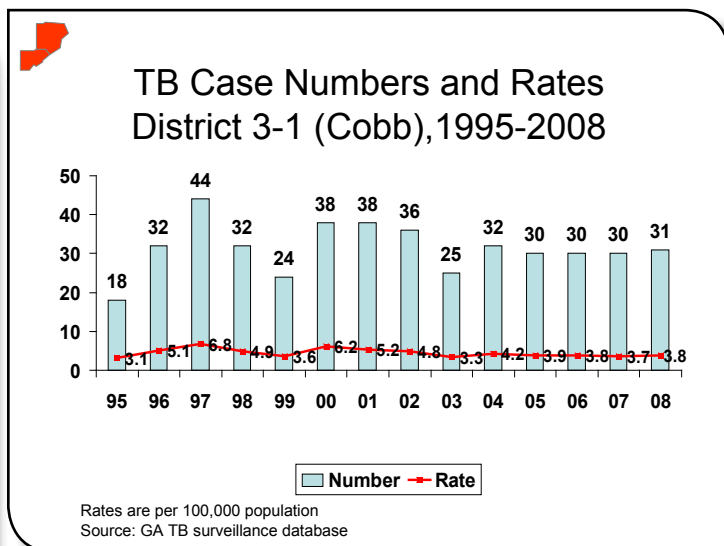
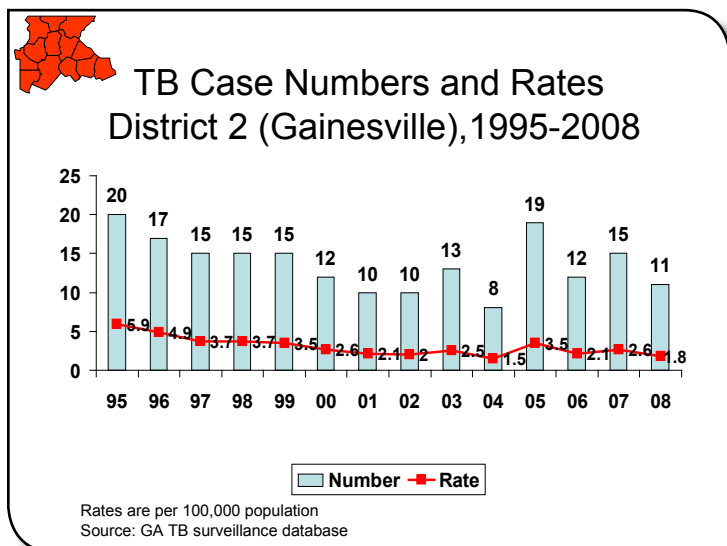
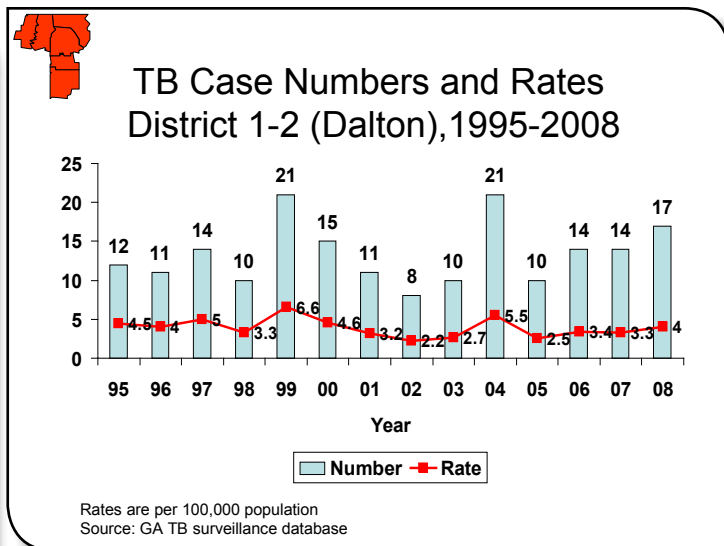
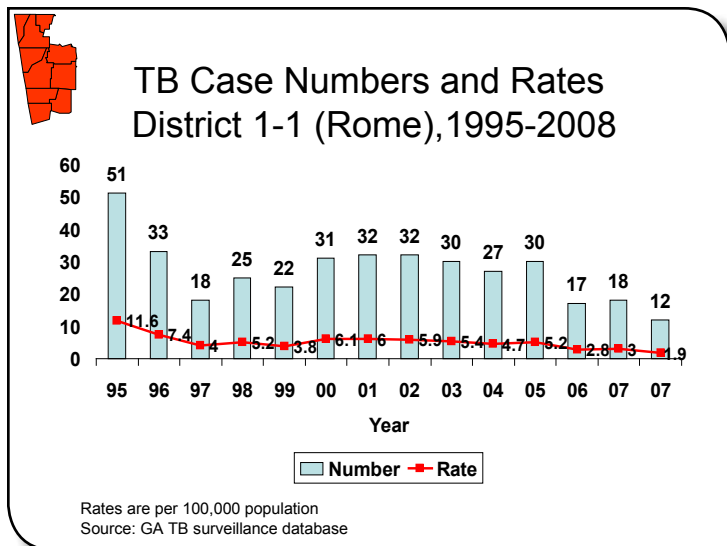
Table 11. LTBI Treatment Completion of Infected Contacts by Health District Georgia, 2007-2008

HEALTH DISTRICT	2007			2008		
	No. Contacts that Completed LTBI Treatment/ Contacts Treated	%	No. Contacts with Missing data	No. Contacts that Completed LTBI Treatment/ Contacts Treated	%	No. Contacts with Missing data
1.1 Rome	64/79	81	0	8/13	62	0
1.2 Dalton	18/27	67	0	38/51	74	0
2.0 Gainesville	5/9	56	0	16/16	100	0
3.1 Cobb	23/43	54	0	24/31	77	0
3.2 Fulton	83/123	68	1	110/145	76	4
3.3 Clayton	9/15	60	0	28/48	58	1
3.4 Lawrenceville	51/69	74	1	24/36	67	11
3.5 DeKalb	27/31	87	12	30/45	67	7
4.0 LaGrange	11/15	73	0	10/15	67	3
5.1 Dublin	7/8	88	0	5/6	83	0
5.2 Macon	6/14	43	0	5/11	46	0
6.0 Augusta	14/34	41	0	10/34	29	2
7.0 Columbus	25/42	60	8	6/14	43	3
8.1 Valdosta	7/7	100	0	7/14	50	0
8.2 Albany	17/30	57	0	33/47	70	7
9.1 Coastal	18/34	53	0	16/17	94	0
9.2 Waycross	14/19	74	0	0/2	0	0
10 Athens	4/14	29	0	1/5	20	0
GEORGIA	403/613	66	22	371/550	68	38

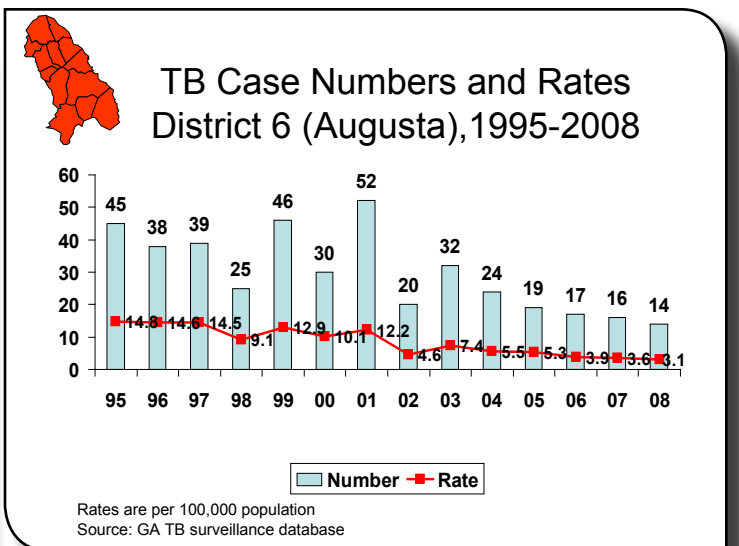
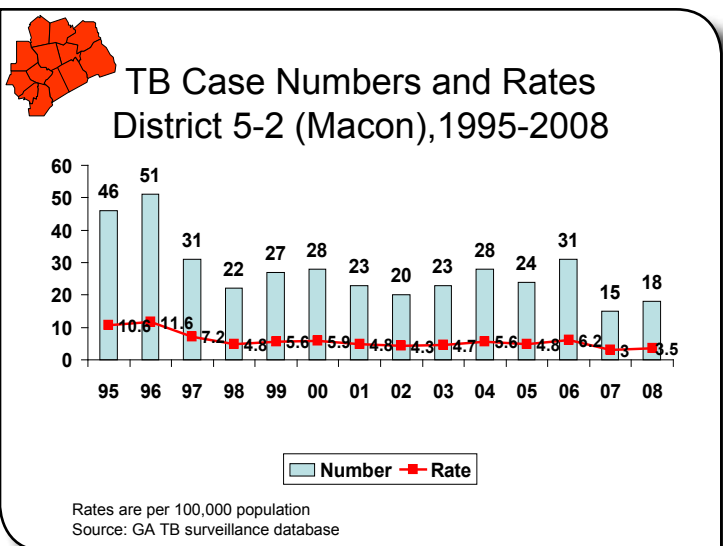
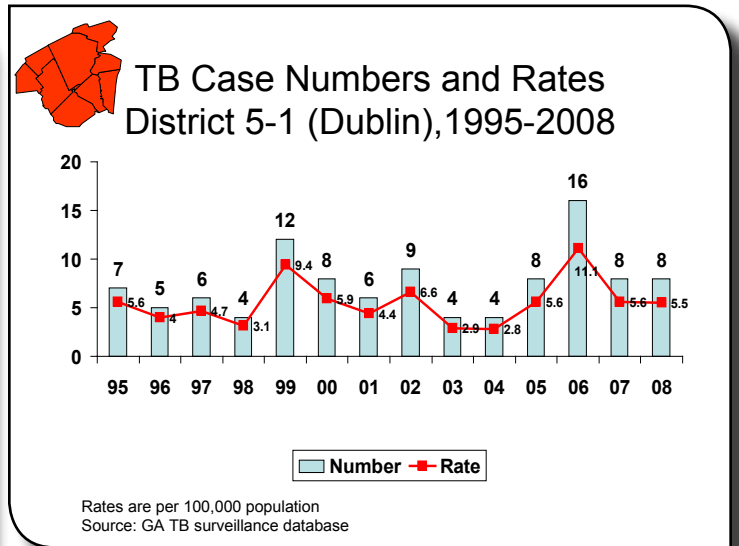
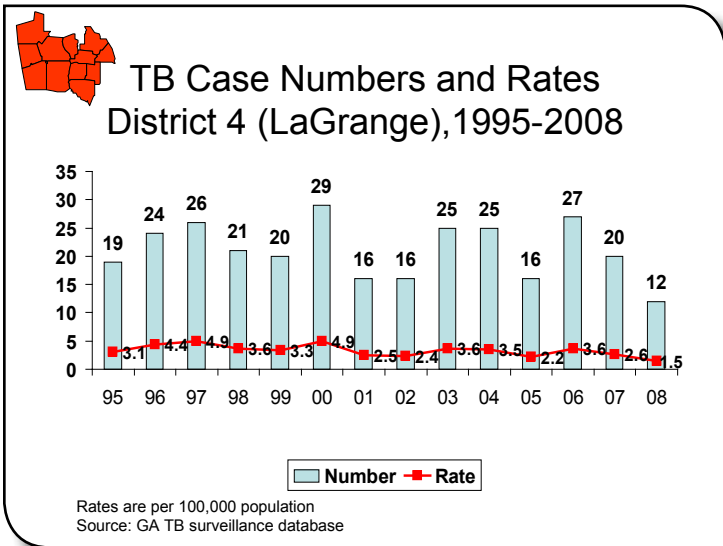
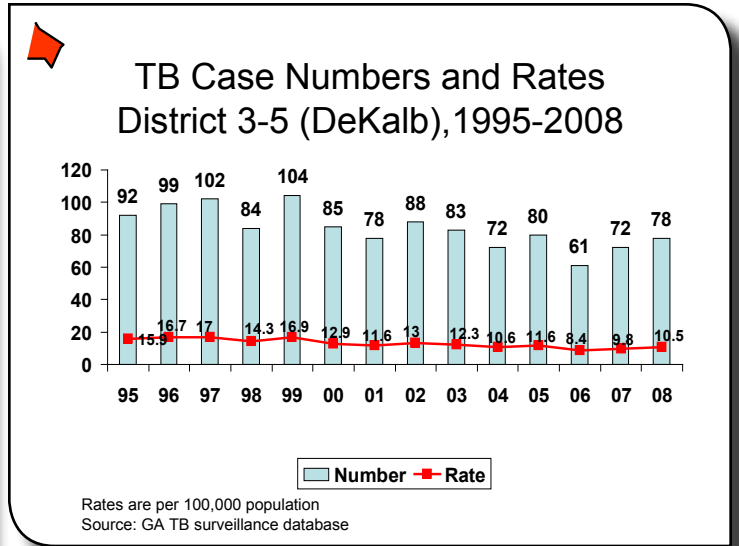
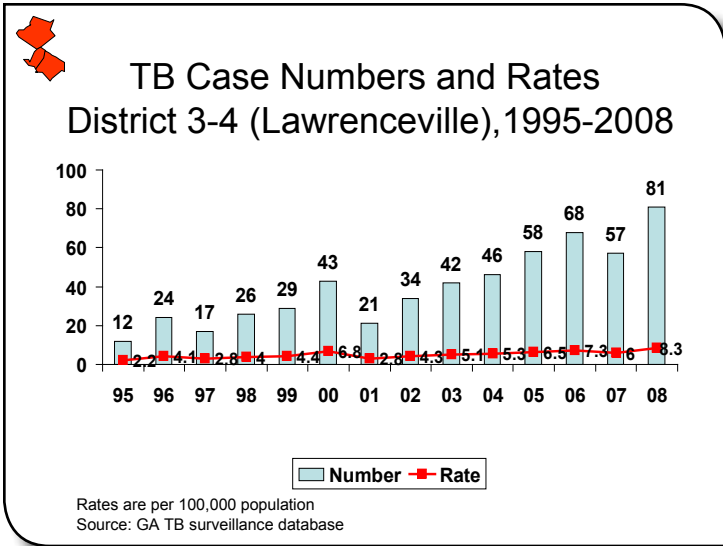
Table 12. Reasons Why Infected Contacts Treated for LTBI Stopped LTBI Therapy Georgia, 2004-2008

Reasons for Stopping LTBI Therapy	2004 n=720 %	2005 n=738 %	2006 n=921 %	2007 n=613 %	2008 N=550 %
Completed Therapy	63	66	57	66	68
Chose to Stop	19	15	19	16	13
Lost to Follow-Up	10	9	11	9	11
Provider Decision	3	4	7	3	2
Moved	3	3	4	3	3
Adverse Reactions	1	2	1	2	2
Active TB Developed	0.4	0.4	0.8	0.7	1
Death	0.1	0	0.3	0.2	0.4

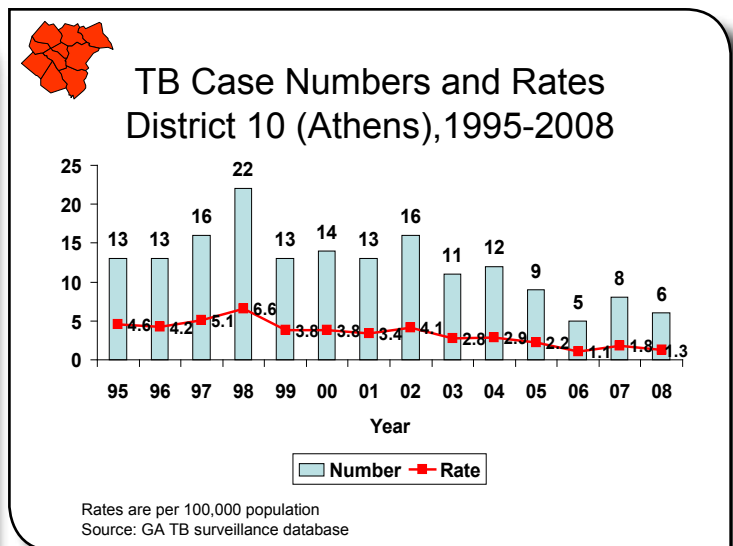
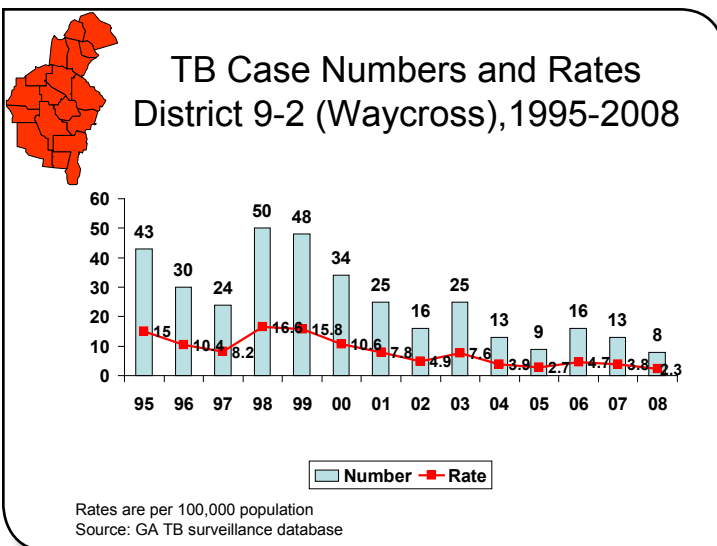
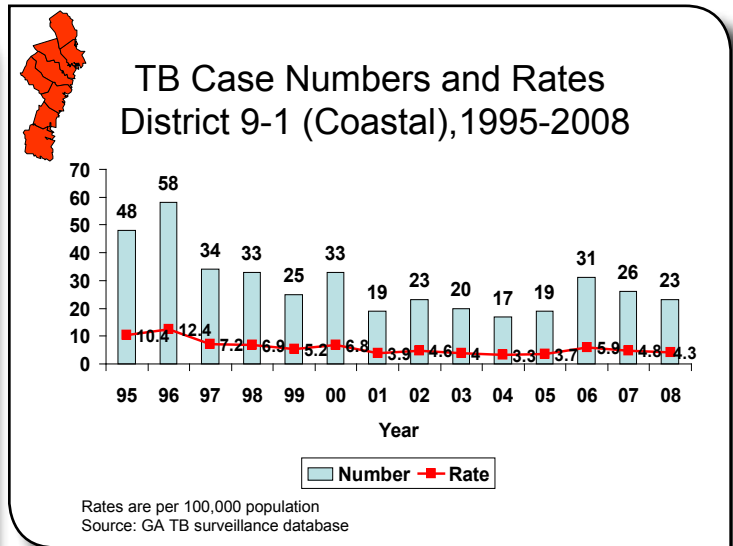
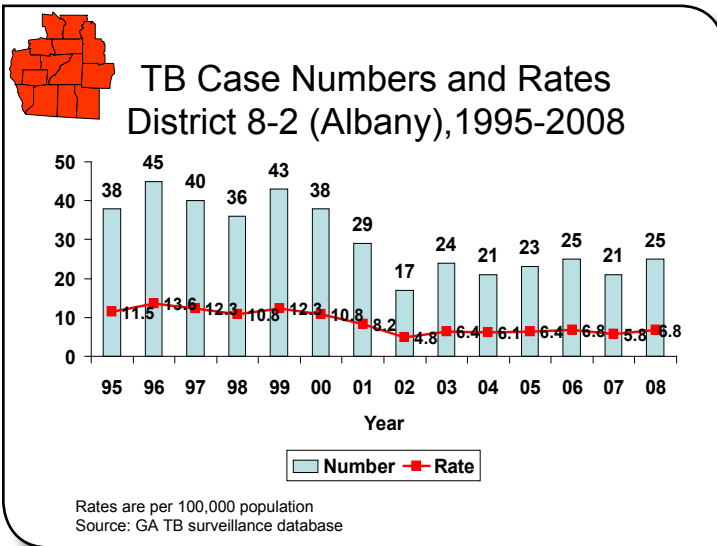
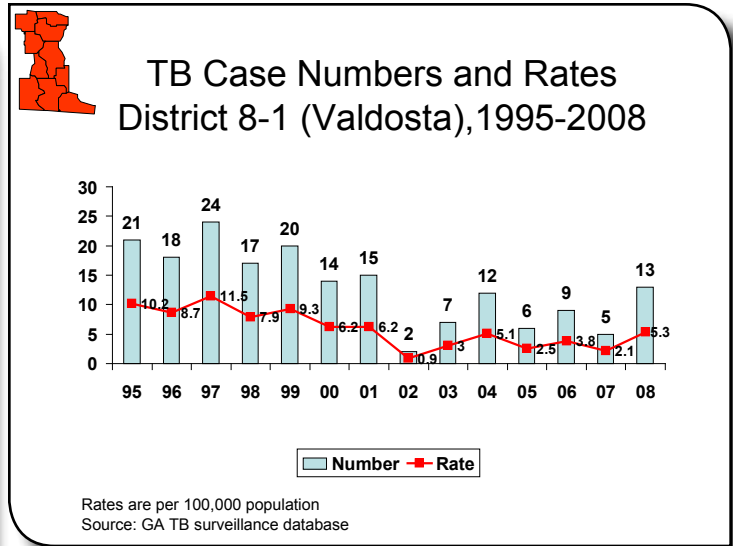
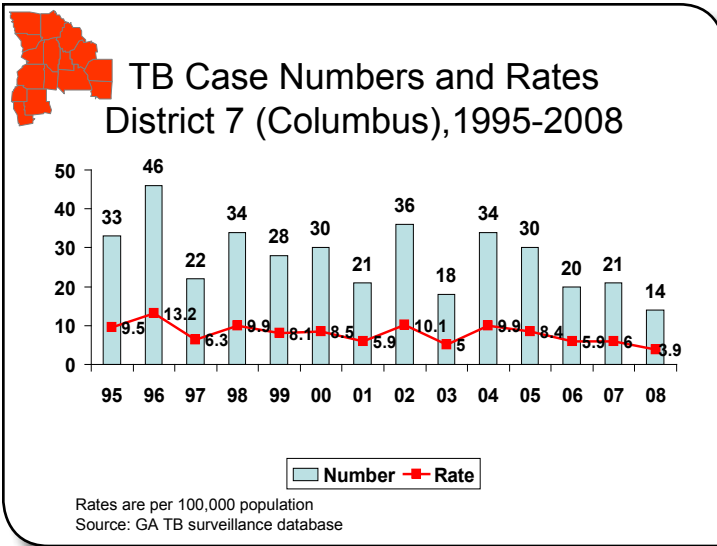
Tuberculosis Morbidity Trends by Health District, Georgia, 1995-2008

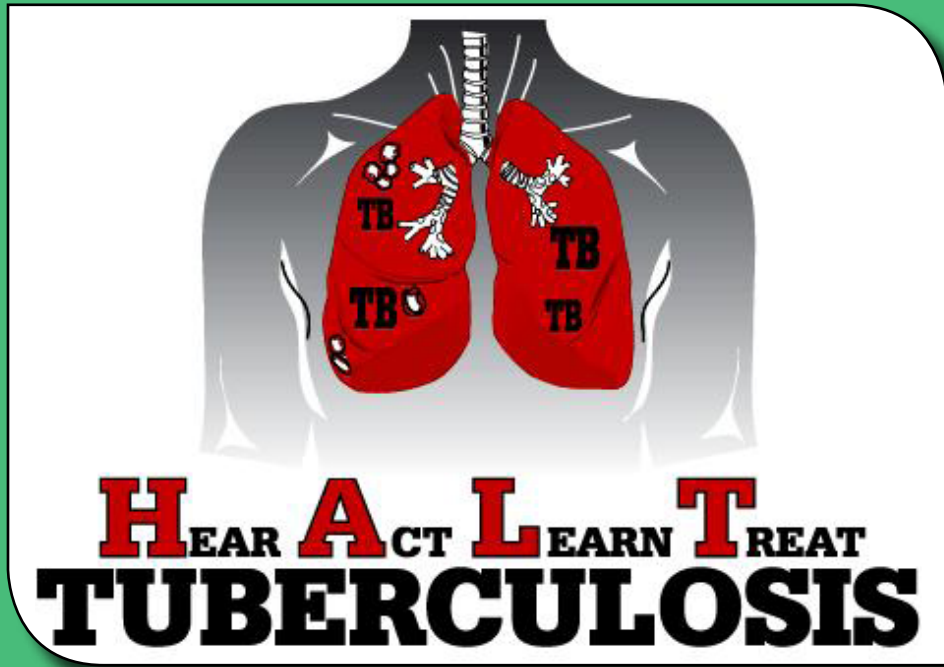


Tuberculosis Morbidity Trends by Health District, Georgia, 1995-2008



Tuberculosis Morbidity Trends by Health District, Georgia, 1995-2008





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