Tuberculosis Surveillance Report

Arizona, 2010

Arizona Department of Health Services

Bureau of Epidemiology and Disease Control Services

Office of Infectious Disease Services

October, 2011

Executive Summary

This Tuberculosis (TB) Annual Surveillance Report provides data regarding TB in Arizona for 2010. The Arizona Department of Health Services (ADHS) TB Control Program provides surveillance, data analysis, health education, dissemination of guidelines, and consultation for the local health departments. The following are the highlights of the 2010 report:

1. The 2010 Arizona rate was 4.4 TB cases per 100,000 in population, which was higher than the U.S. rate of 3.6 TB cases per 100,000.
   - There were 282 TB cases reported in Arizona in 2010, a 21.6% increase in the number of cases from 2009. Arizona ranked 10th among all states for TB morbidity.

2. Risk factors for Arizona TB cases:
   - Foreign-born status accounted for 64.5% (182/282) of the reported TB cases.
   - Correctional facilities accounted for 23.1% (61/264) of the cases >14 years of age.
   - HIV co-infection was identified in 3.5% (10/282) of the cases.

3. Drug susceptibility testing was completed for 97% (196/202) of culture positive TB cases.
   - Isoniazid (INH) resistance occurred among 7.7% (15/196) of the TB cases with reported drug susceptibilities. No multidrug-resistant TB (MDR-TB) or extensively drug resistant TB (XDR TB) cases reported.

4. The ADHS TB Control Program strives to achieve the national goal of completion of treatment within 12 months for 90% of the active cases. The latest year for which completion of treatment data is available is 2008.
   - Completion of treatment within twelve months was documented for 72.8% (142/195) of the 2008 TB cases. Overall completion of treatment was 79.2% (156/197).
   - Completion of treatment within twelve months was documented for 85.2% (132/155) of non-correctional TB cases. Overall completion of treatment was 93% (146/157) in 2008.
   - Completion of treatment within twelve months for correctional facility inmates in 2008 was 22.5% (9/40). Overall completion of treatment for the correctional facility cases was 25% (10/40). Completion of treatment within twelve months for homeless cases was 42.9% (3/7 and overall completion was 85.7% (6/7).
   - In 2008, 90.8% (177/195) of cases received directly observed therapy or a combination of directly observed therapy and self-administered therapy.

5. The ADHS TB Control Program continues to encourage continuity of care for individuals being treated for TB who return to Mexico. Meet and Greets facilitate continuation of treatment and are coordinated with outside agencies. and occur at the Port of Nogales. There were ten successful Meet and Greets in 2010. In addition, 106 referrals were made to TBNet and CureTB for TB cases returning to their home county.

I. Purpose of the Report

This Tuberculosis (TB) Annual Surveillance Report is designed to be a source of TB data in Arizona for purposes of prevention and control of the disease through interventions; creation or modification of policies, rules and statutes; allocation of funds; and planning services. The target audience includes government agencies, health care organizations, healthcare providers and other interested parties.

II. TB Surveillance, Prevention, and Control in Arizona

The Arizona Department of Health Services (ADHS) TB Control Program is assigned the responsibility of monitoring, controlling and preventing infection, disease, and death associated with TB statewide through surveillance, data analyses, health education, and dissemination of guidelines, consultation, and rule making. The ADHS TB Control Program assesses the burden of active disease and latent TB infection (LTBI), including the demographics, distribution and the risk factors associated with disease and infection.

The local health departments (LHDs) in Arizona provide the direct patient care, including medical evaluation, treatment, and contact investigations. They also coordinate with private and other public providers (e.g. correctional health) who provide these services to individuals with active TB disease or LTBI.

The Arizona State Public Health Laboratory provides testing services including acid-fast bacillus smear, culture, identification, and drug susceptibility testing for clinical mycobacterial samples statewide. The laboratory serves as a reference laboratory for all isolates suspected to be positive for TB and performs drug susceptibility testing on all first- time positive isolates.

Key statewide TB control activities include conducting surveillance using state and national databases; conducting case management and providing directly observed therapy to ensure completion of therapy; monitoring drug resistance patterns; and conducting contact investigations and follow-up of persons exposed to active TB cases

through medical evaluation and completion of preventative therapy for contacts with LTBI.

III. Demographics

A. Incidence of TB

In 2010, a total of 11,181 TB cases were reported in the U.S., for a rate of 3.6 cases per 100,000 which was a decline of 3.9% from 2009 and the lowest rate recorded since national reporting began in 1953.

The ADHS TB Control Program received reports of 282 active TB cases in 2010. This reflects a 21.6% increase in the number of cases in comparison to 232 reported active TB cases in 2009. Arizona active TB case trends were relatively stable until 2008. In 2008, an unexplained 25% decrease in the number of reported TB cases occurred. A mean of 283 active TB cases were reported over the past 10 years, with a range of 227 to 314 active TB cases. (Figure 1 and Table 1).

The 2010 case rate in Arizona was 4.4 per 100,000, which was higher than the U.S. case rate of 3.6 per 100,000. Only eleven states, including Arizona, reported TB case rates higher than 4.0 per 100,000. The Arizona case rate has fluctuated for the past ten years between 3.5 and 5.4 cases per 100,000.

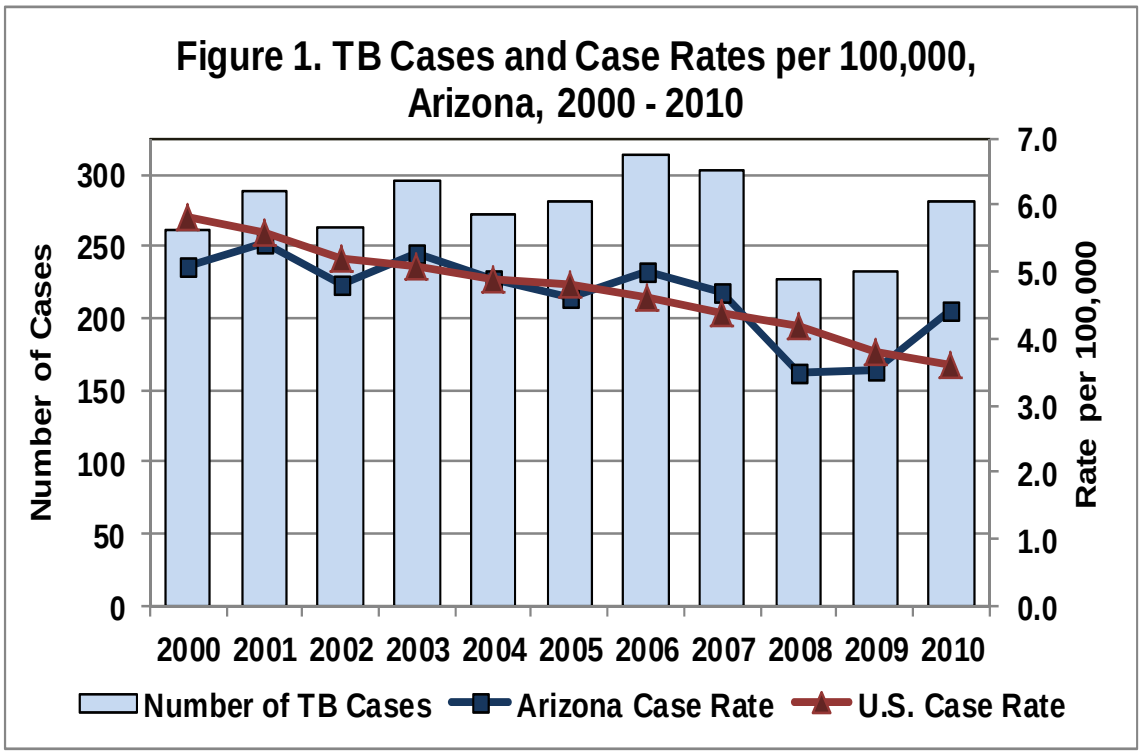


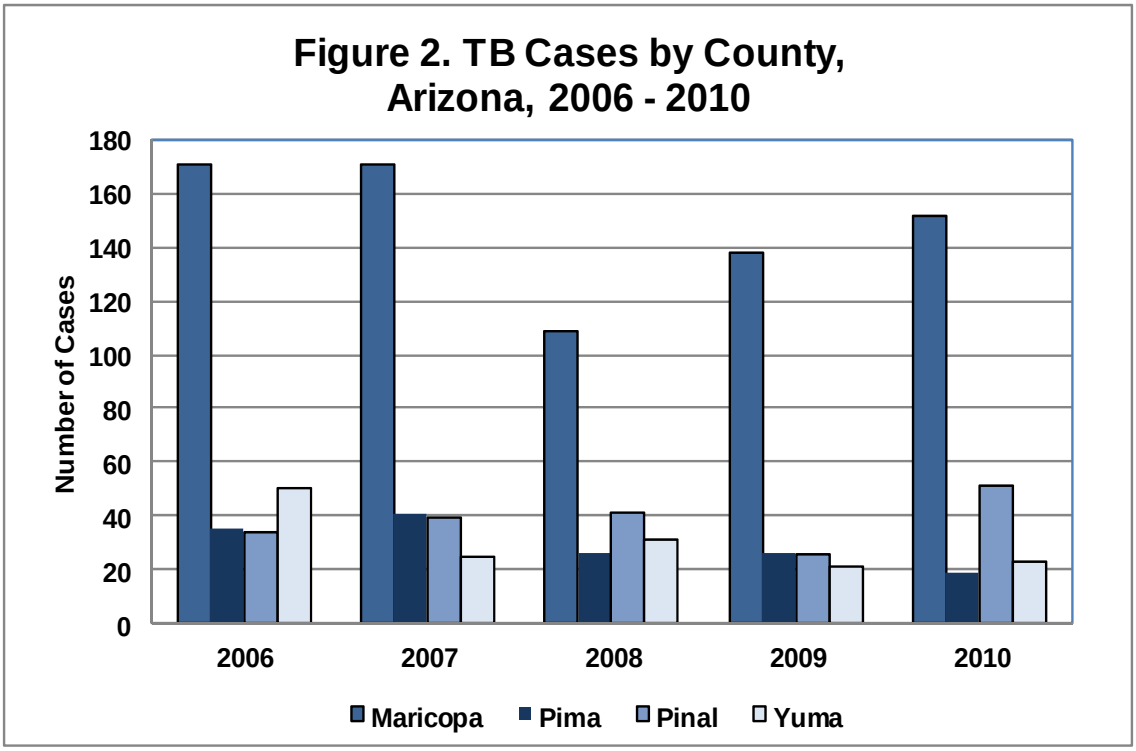
Table 1. Tuberculosis Cases and Case Rates per 100,000 Population, Arizona and United States, 2000 - 2010

	Arizona		United States	
Year	Cases	Rate	Cases	Rate
2000	261	5.1	16,377	5.8
2001	289	5.4	15,989	5.6
2002	263	4.8	15,078	5.2
2003	295	5.3	14,871	5.1
2004	272	4.9	14,511	4.9
2005	281	4.6	14,093	4.8
2006	313	5.0	13,767	4.6
2007	302	4.7	13,293	4.4
2008	227	3.5	12,898	4.2
2009	232	3.5	11,540	3.8
2010	282	4.4	11,181	3.6

County of Residence and County Case Rates

Four of Arizona's fifteen counties accounted for 86.9% (245/282) of the state's active TB cases. Maricopa County, representing 59.7% of the state population, reported 53.9% (152/282) of cases statewide. Pima County, the state's second most populous county

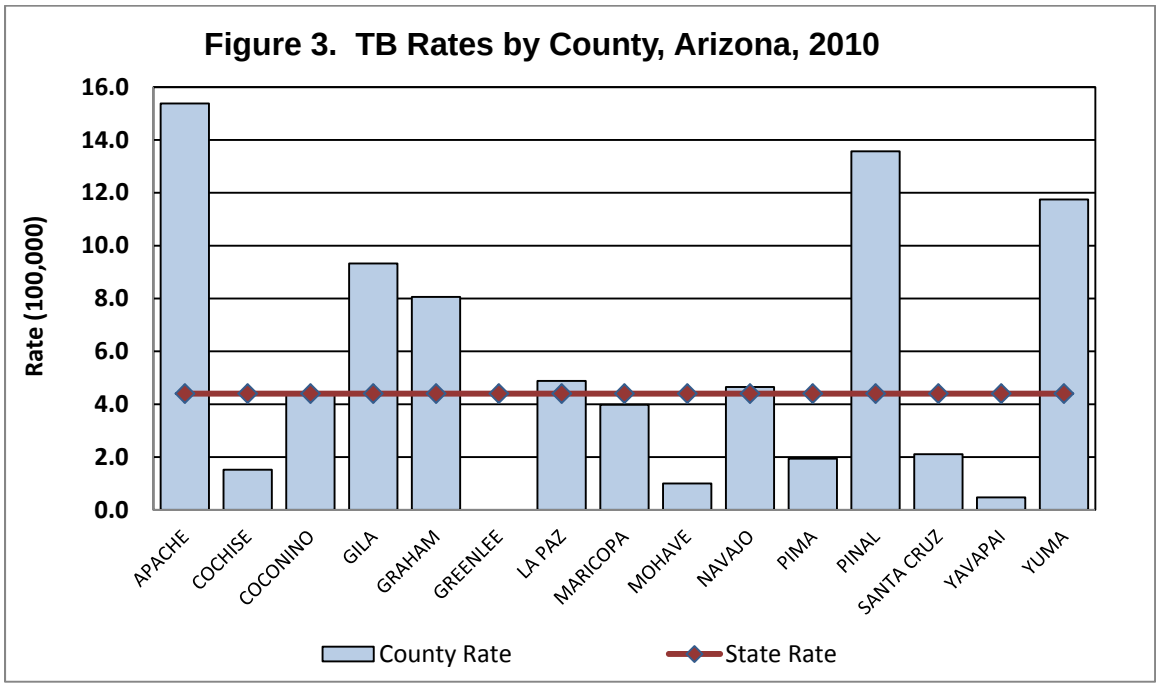
with 15.4% of the state's population, reported 6.7% of the cases (19/282). Pinal County reported 18% of the cases (51/282) and Yuma County reported 8.2% (23/282). Ten counties accounted for the remaining 13.1% (37/282) of the cases. Greenlee County did not have any reported cases in 2010. Figure 2 presents the number of cases by the four highest morbidity counties.



Apache, Coconino, Gila, Graham, La Paz, Navajo, Pinal, and Yuma counties exceeded the statewide case rate of 4.4 per 100,000. These counties have relatively small populations and have very few cases. The small populations and low number of cases may artificially inflate the incidence rates. Figure 3 presents the case rates by county.

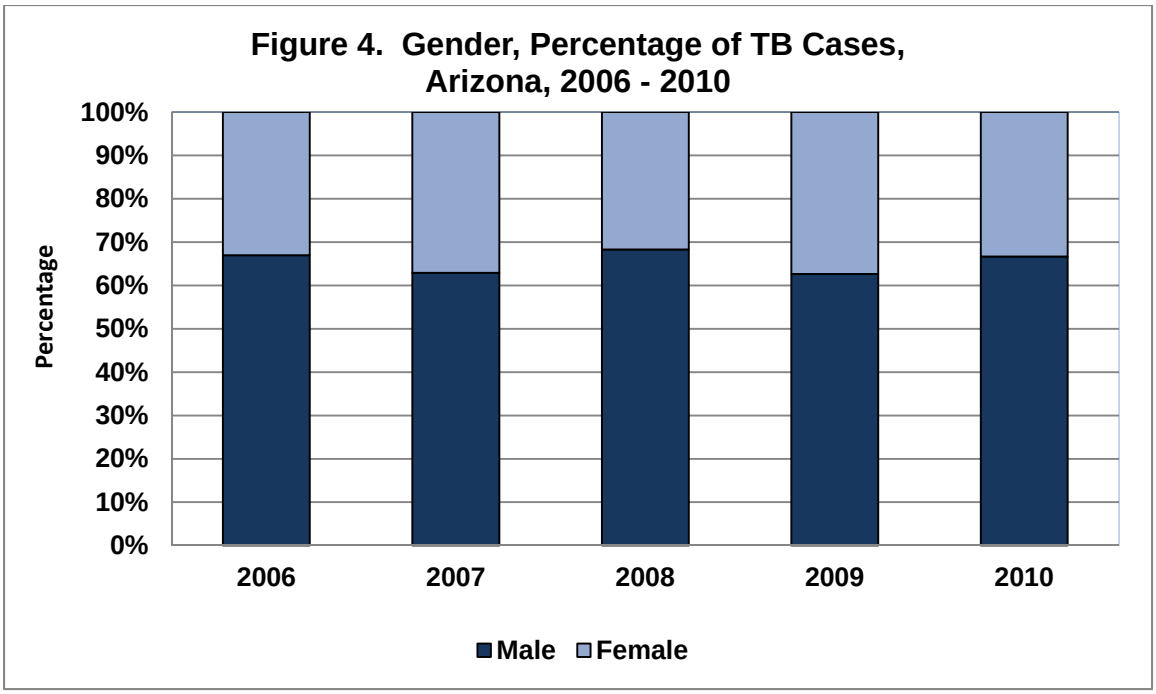
The case rate for Maricopa County was 4.0 per 100,000 and was below the state case rate but increased from 3.5 cases per 100,000 in 2009. Pima County decreased to 1.9 per 100,000 from 2.6 per 100,000 in 2009. The case rate for Pinal County increased from 7.9 per 100,000 in 2009 to 13.6 per 100,000 in 2009. The rate for Yuma County increased to 11.7 per 100,000 in 2010 from 10.3 per 100,000 in 2009.

In Pinal County, 94.1% (48/51) of the cases were diagnosed in a correctional facility. Twenty-one correctional facilities are located in Pinal County including two of the largest state correctional facilities, private prisons, two U.S. Immigrations and Customs Enforcement Service Processing Center (ICE-SPC), and county jails. Inmates housed in ICE facilities located in Pinal County accounted for 64.6% (31/48) of these cases.



B. Gender/Age/Race/Ethnicity

Males accounted for 66.7% (188/282) of the cases and females accounted for 33.3% (94/282). Statewide, the ratio of male to female active TB cases was 1.9 male active TB cases to one female active TB case. The rate for males was 6.0 per 100,000 and the rate for females was 2.9 per 100,000. Figure 4 presents the TB cases by gender from 2005 through 2010.



Age

The mean age for all active TB cases was 43.5 years of age and the median age was 42.5 years. For males, the mean age was 43.9 years and the median age was 43.3 years. For females, the mean age was 42.8 years and the median age was 38.9 years. The median age for Arizona's population is 35.9 years.

The number of cases by age group is presented in Figure 5 and the case rate by age groups is presented in Figure 6. The highest case rate (9.0 per 100,000 population) occurred among those between 25-44 years (112/282), followed by the 45-64 year old age group (82/282) at 5.2 per 100,000 population. The 25-44 year old age group accounted for 39.7% (112/282) of the total cases.

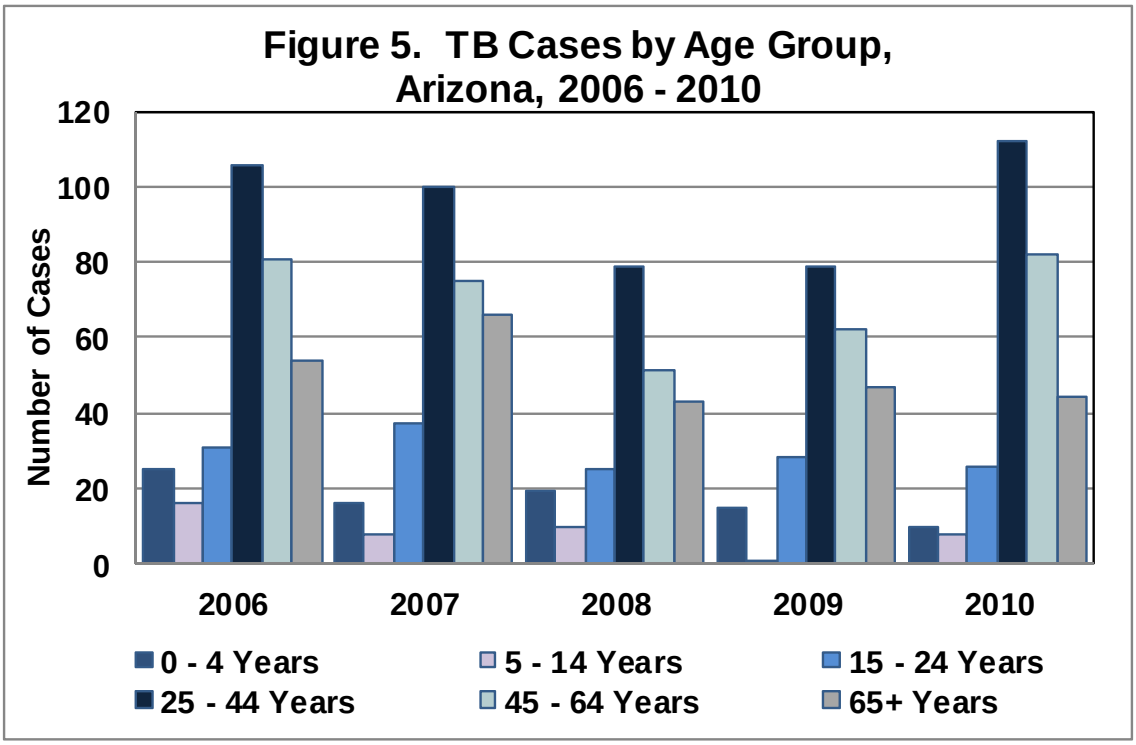


Figure 5. TB Cases by Age Group, Arizona, 2006 - 2010
Number of Cases
120
100
80
60
40
20
0
2006
2007
2008
2009
2010
0 - 4 Years
5 - 14 Years
15 - 24 Years
25 - 44 Years
45 - 64 Years
65+ Years

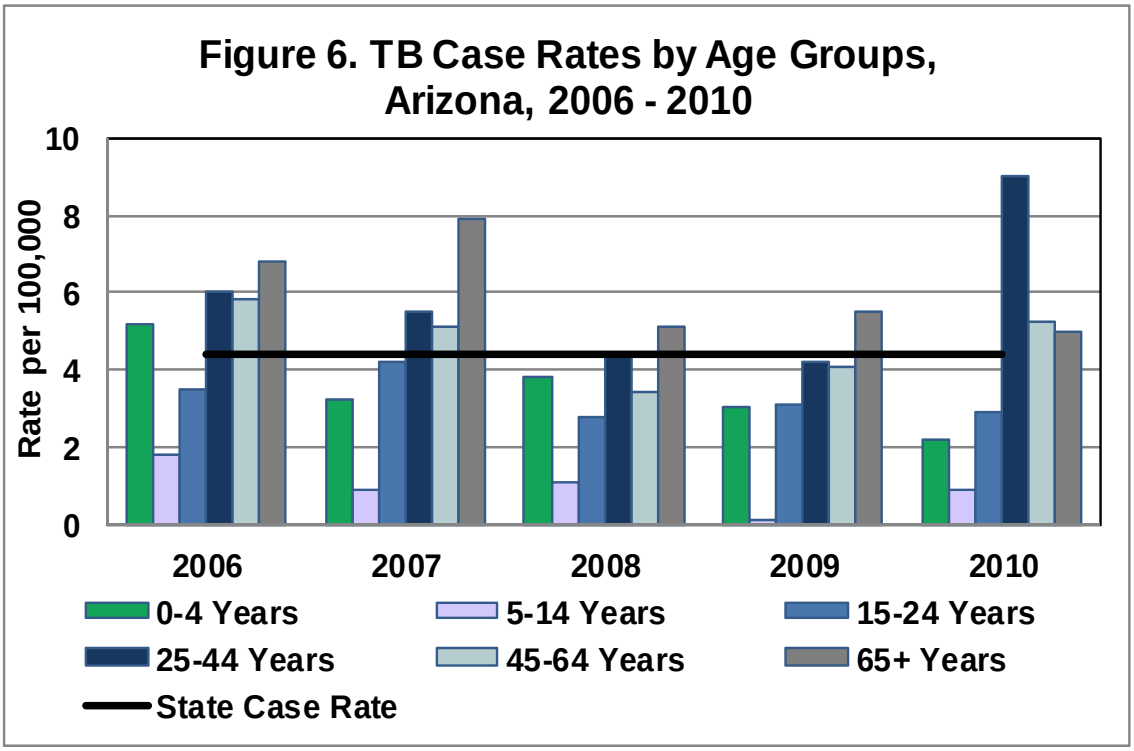


Figure 6. TB Case Rates by Age Groups, Arizona, 2006 - 2010
Rate per 100,000
10
8
6
4
2
0
2006
2007
2008
2009
2010
0-4 Years
5-14 Years
15-24 Years
25-44 Years
45-64 Years
65+ Years
State Case Rate

TB in Children Less than Six Years of Age

Children less than six years of age accounted for 3.5% (10/282) of the total cases in 2010. The rate for children in this age group was 2.2 per 100,000 population. In 2009, the rate for this age group was 3.0 per 100,000 population. The ADHS TB Control Program's current efforts to improve TB control in adults are an important way to control TB in pediatrics.

Race/Ethnicity

In Arizona, Hispanic ethnicity of any race accounted for 48.2% (136/282) of the reported cases in 2010. Asian was reported in 19.9% (56/282) of the cases, followed by non-Hispanic white in 14.2% (40/282), Native American in 10.3% (29/282), African-American in 7.1% (20/282), and one case was reported as Pacific Islander. There were no cases reported as multiple-race (Figure 7).

In 20101, the highest case rate was 32.8 per 100,000 for those reporting Asian race which increased slightly from 30.5 per 100,000 in 2009. The TB case rate among Hispanics of any race was 7.2 per 100,000 in 2010 compared to 6.0 per 100,000 in 2009. The case rate among Hispanics had been as high as 11.4 per 100,000 population in previous years. The TB case rate among White non-Hispanics was 1.1 per 100,000 in 2010, a slight increase from 0.7 per 100,000 in 2009. The TB case rates by race and ethnicity for Arizona are presented in Figure 8.

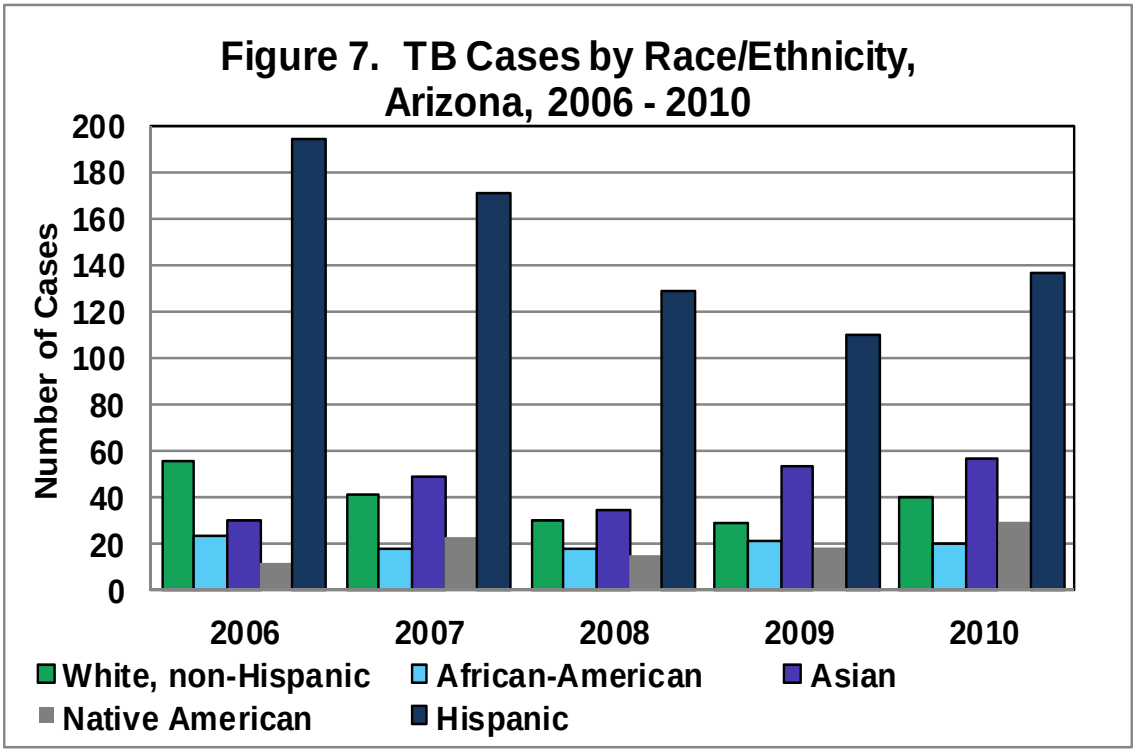


Figure 7. TB Cases by Race/Ethnicity, Arizona, 2006 - 2010
Number of Cases
200
180
160
140
120
100
80
60
40
20
0
2006
2007
2008
2009
2010
White, non-Hispanic
African-American
Asian
Native American
Hispanic

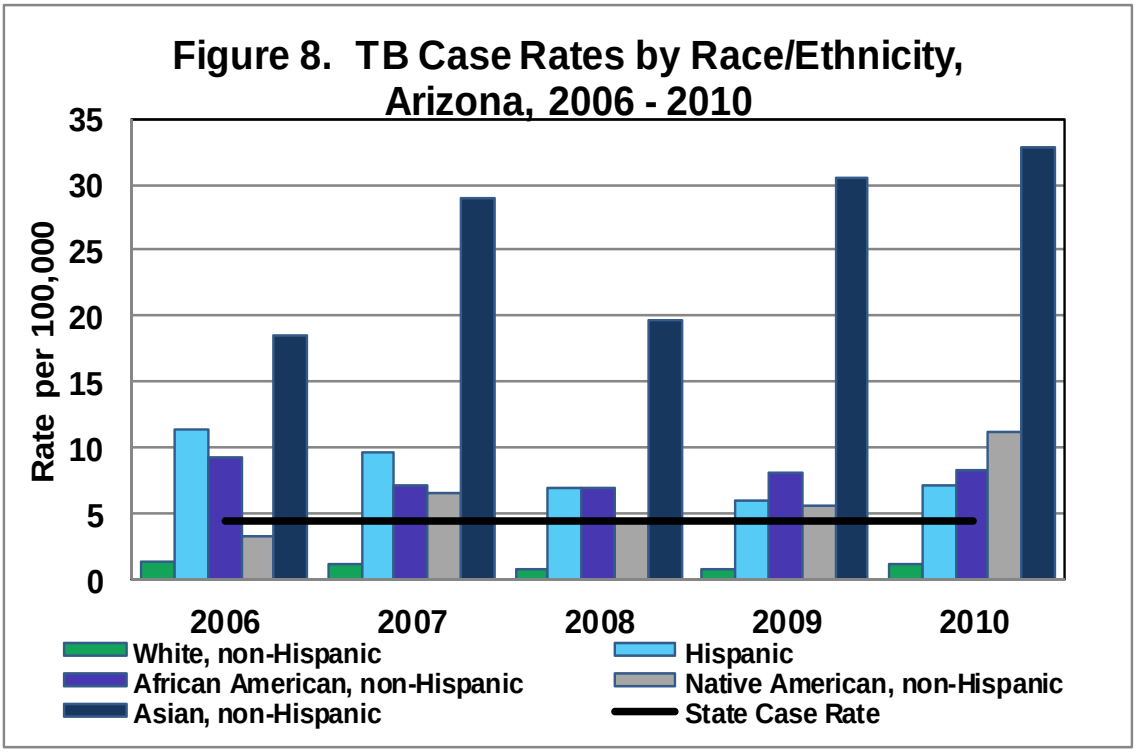


Figure 8. TB Case Rates by Race/Ethnicity, Arizona, 2006 - 2010
Rate per 100,000
35
30
25
20
15
10
5
0
2006
2007
2008
2009
2010
White, non-Hispanic
Hispanic
African American, non-Hispanic
Native American, non-Hispanic
Asian, non-Hispanic
State Case Rate

B. Site of Infection and Vital Status at Diagnosis

Pulmonary TB with no additional site of disease accounted for 79.5% (225/282) of all cases in 2010. Extrapulmonary disease accounted for 18.7% (53/282) of the cases. Patients with both pulmonary and extrapulmonary disease accounted for 1.8% (5/282) of cases. Cases diagnosed after death accounted for 1.1% (3/282) of the 2010 cases.

C. Case Verification Status

For purposes of surveillance, a case of TB is defined on the basis of laboratory or clinical evidence of active disease due to *M. tuberculosis* (MTB) complex. The laboratory case definition includes identification of MTB from a clinical specimen, which may include laboratory cultures, positive results from nucleic acid amplification tests (NAAT) or the demonstration of acid-fast bacilli (AFB) in a clinical specimen when a culture has not been or cannot be obtained or is falsely negative or contaminated. The clinical case definition includes evidence of TB infection based on a positive tuberculin skin test result or positive interferon gamma release assay for MTB and one of the following: (1) signs and symptoms of TB disease or clinical evidence of current disease and (2) current treatment with two or more anti-TB medications. Provider diagnosis is based on the clinical judgment of the medical provider. Table 2 presents the verification criteria for the 2010 cases.

Table 2. TB Case Verification Criteria, Arizona 2010

TB Case Verification Criteria	Number of Cases	% of Total TB Cases
Positive culture	201	71.3
Clinical diagnosis	54	19.1
Provider diagnosis	21	7.4
Positive NAA test	4	1.4
Positive smear/tissue	2	0.7
Total	282	100

III. Risk Factors

Table 3 presents the risk factors associated with the 2010 Arizona cases.

Table 3. Tuberculosis Cases by Selected Risk Factors, Arizona, 2006 - 2010

	2006		2007		2008		2009		2010	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Total Cases	313		302		227		232		**282**	
Occupation										
Health Care Worker ≥15 years	9	2.9	10	3.3	4	3.3	3	1.3	**4**	**1.5**
Migrant Farm Worker ≥15 years	11	3.5	10	3.3	8	3.3	4	1.8	**8**	**3.0**
Reported Behaviors										
Injecting Drug Use[a] ≥15 years	7	2.2	10	3.3	6	3.6	3	1.3	**8**	**3.0**
Non-injecting Drug Use[a] ≥15 years	17	5.4	22	7.3	12	7.3	17	7.3	**16**	**6.1**
Excess Alcohol Use[a] ≥15 years	39	12.5	35	11.6	28	11.9	16	6.9	**27**	**10.2**
Type of Residence										
Long Term Care Facility[b]	11	3.5	9	3.0	6	3	2	0.8	**6**	**1.8**
Correctional Facility ≥15 years	38	14.0	54	19.4	50	17.9	37	17	**61**	**23.1**
Homeless[a]	29	9.3	26	8.6	14	8.6	8	3.4	**24**	**8.5**
Comorbidity										
HIV infection, All Ages	15	4.8	17	5.6	6	5.6	16	6.9	**10**	**3.5**
HIV infection, 25-44 Years Old	9	8.5	11	11.0	5	11	16	11	**8**	**7.1**
Diabetes Mellitus[c]							33	14.2	**31**	**11.0**
Immunosuppression (Not HIV/AIDS)[c]							7	3.0	**9**	**3.2**
Foreign Born	181	58	185	61.3	148	61.3	154	66	**182**	**64.5**
Incomplete LTBI Therapy[c]							3	1.3	**10**	**3.5**
Contact of infectious TB case (2 years or less)[c]							13	5.6	**15**	**5.3**

[a]Within one year prior to diagnosis of tuberculosis.

[b]Residence at time of diagnosis.

[c]Data not collected prior to 2009

A. Occupation

High-risk occupations for TB transmission include health care workers and migrant farm workers. Migrant farm workers comprised 3.0% (8/264) of the total cases in 2010. The occupation of health care worker was reported in 1.4% (4/282) of the cases.

B. Reported Behaviors

Substance abuse (including alcohol abuse and/or illicit drug use) is defined a having a history of substance abuse during the 12 months prior to diagnosis. Substance abuse was reported in 13.5% (38/282) of 2010 cases.

In 2010, 10.2% (27/264) reported excess alcohol use, 6.1% (16/264) reported non-injecting drug use, and 3.1% (8/262) reported injection drug use.

C. Correctional Facilities

Preventing TB transmission in congregate settings, such as correctional and detention facilities, is a significant challenge. Individuals from diverse backgrounds and communities are housed in close proximity for varying lengths of time. Routine evaluation of all inmates for TB during the intake process allows for diagnosis of both latent and active TB in this population. The ADHS TB Program works closely with correctional health staff to provide TB training and education and ensure the facilities comply with the inmate screening requirements.

Arizona has consistently ranked highest in the nation for the percentage of cases greater than fourteen years of age diagnosed in correctional facilities. In 2010, correctional facilities accounted for 23% (61/264) of the state's reported cases over the age of fourteen (Figure 9). Correctional facilities include federal, state, local jails, juvenile, and private prison facilities and immigration detention centers (Table 4). TB cases diagnosed while in the custody of the U.S. Immigration and Customs Service (ICE) accounted for 59% (36/61) of the correctional TB cases.

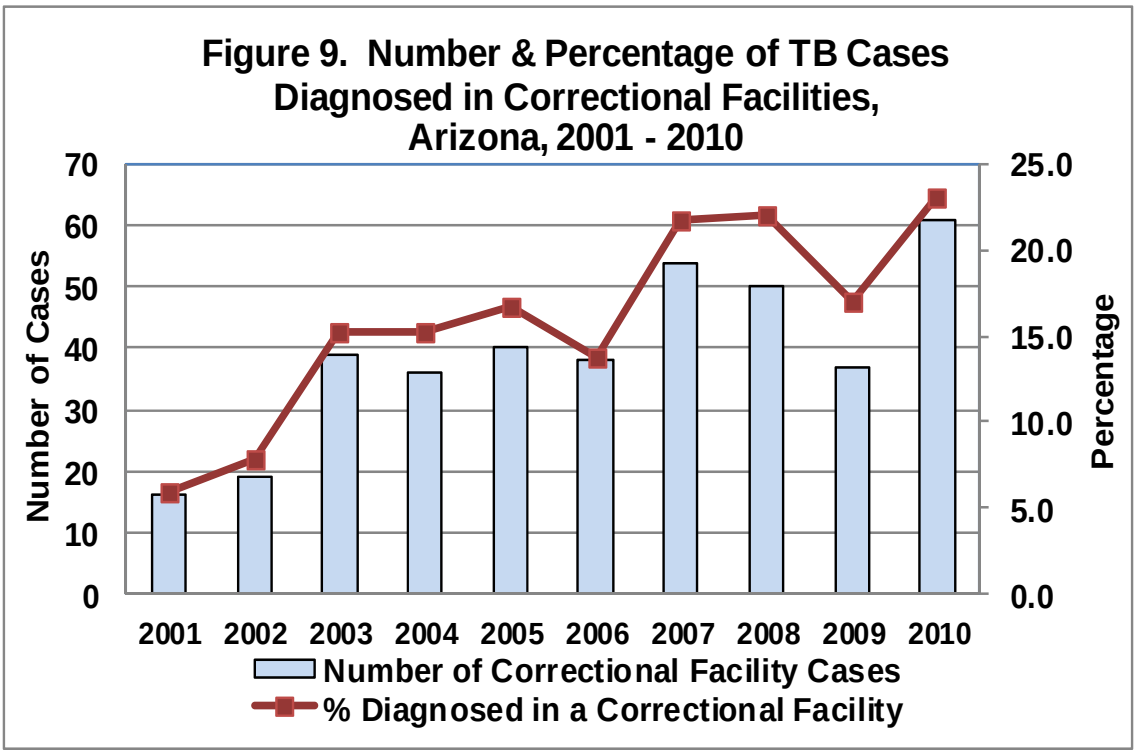


Table 4. TB Cases, Type of Correctional Facility, Arizona, 2010		
Type of Correctional Facility	**Number of Cases**	**% of Correctional TB Cases**
Federal	3	4.9
State	4	6.6
Local Jail	4	6.6
Juvenile	2	3.3
Private Prisons and Immigration Detention Centers	48	78.7
Total	**61**	**100%**

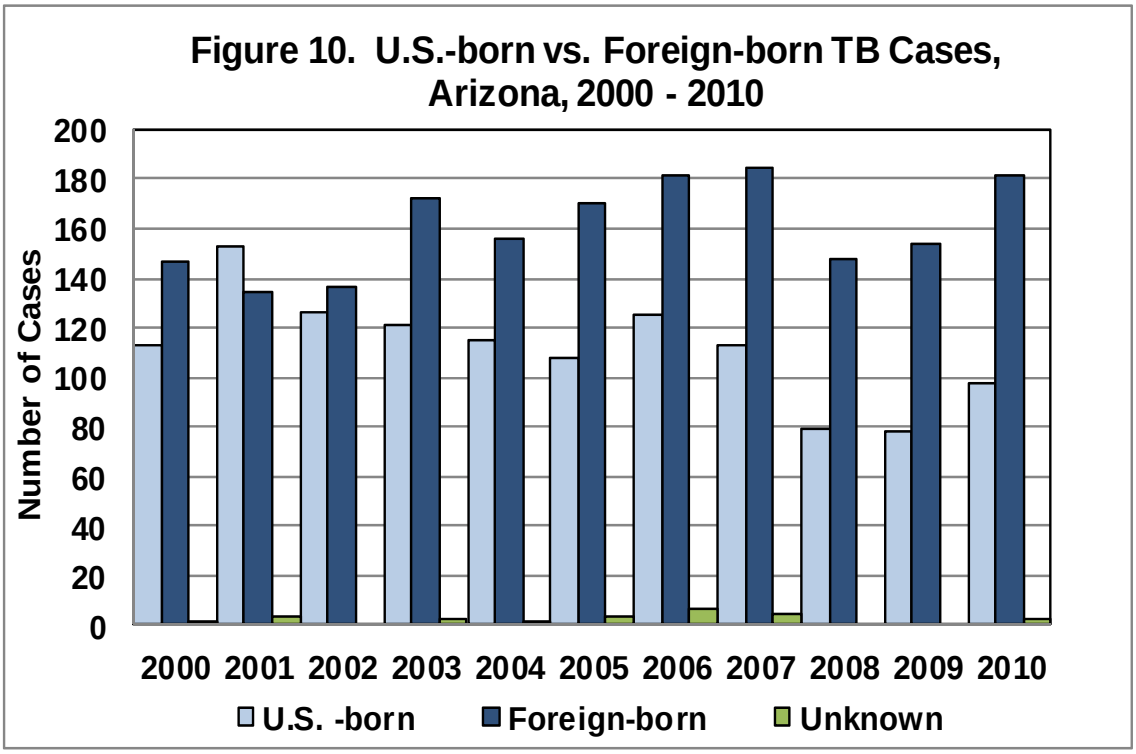
D. Homelessness

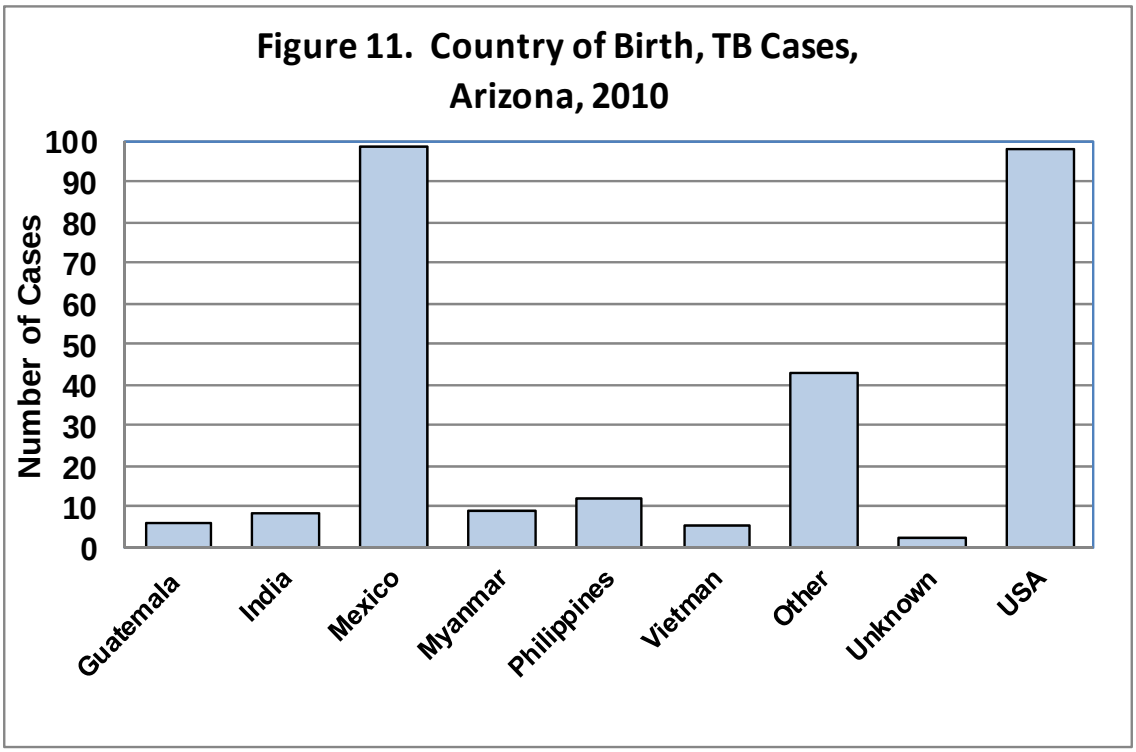
Homelessness is another important risk factor with 8.5% (24/282) of the 2010 cases reported as being homeless within twelve months prior to diagnosis. Maricopa County reported 54.2% (13/24) of the homeless cases. Pima, Pinal, and Yuma counties reported the remaining 45.8% (11/24) of the cases.

E. Country of Birth

Arizona has observed an increasing proportion of cases among foreign-born individuals. In 2010, 64.5% (182/282) of Arizona cases were born outside the U.S. and its territories. There were 98 cases reported as U.S. –born and 2 cases had unknown country of origin (Figure 10).

Mexico was the country of origin for 54.4% (99/182) of foreign-born cases in 2010 (Figure 11). Of the cases born in Mexico, 29.3% (29/99) reported being in the U.S. for less than two years and 39.4% (39/99) reported U.S. residence for more than ten years. U.S. residence of more than twenty years was reported by 28.3% (28/99) of the Mexican-born cases.



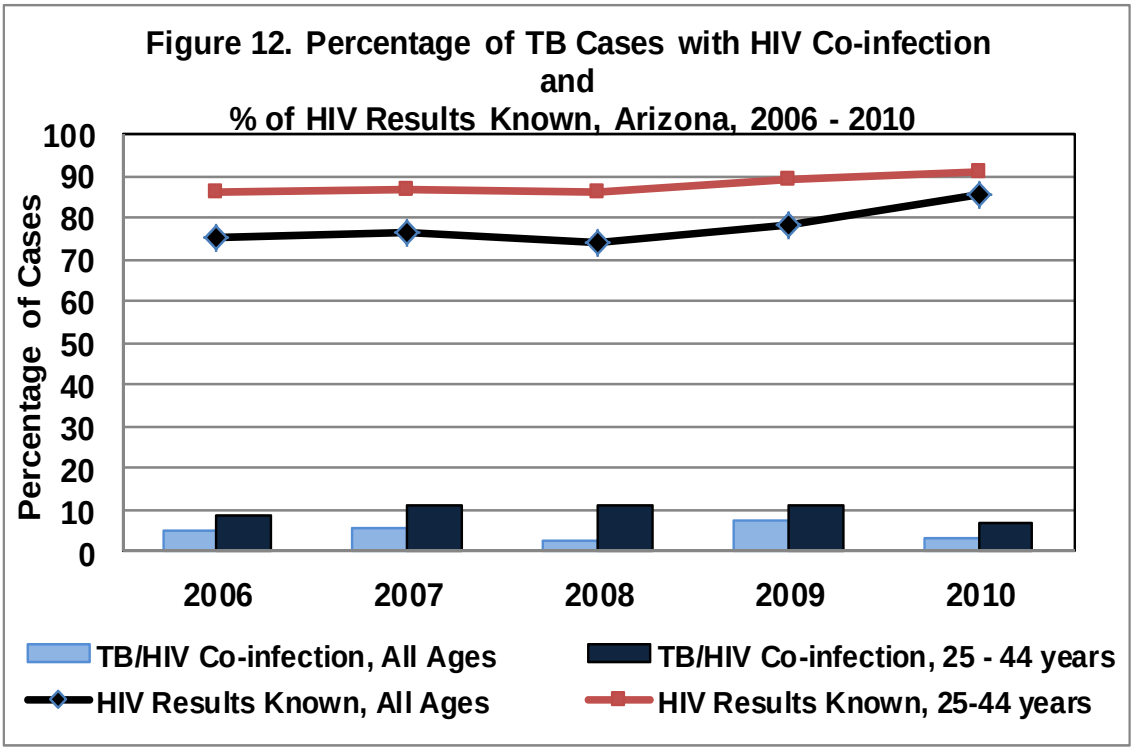


F. TB-HIV Co-Infection

Co-infection with HIV in individuals with TB is a major concern because immunosuppression by HIV can impact the body's ability to fight infection. Individuals with co-infection have higher mortality and are susceptible to increased drug resistance, leading to longer and more complex treatment regimens. The ADHS TB Control Program emphasizes to healthcare providers the importance of all newly diagnosed TB cases of all ages receiving HIV screening. The Centers for Disease Control and Prevention (CDC) estimates approximately 10 – 15% of the TB cases in the United States also have HIV infection. For those TB cases 5 – 44 years of age, the estimated co-infection increases to 30%. Worldwide, the 25 – 44 year old age group is the most impacted by HIV infection.

In 2010, HIV co-infection was identified in 3.5% (10/282) of the Arizona TB cases. HIV testing results were reported for 85.5% (241/282) of the TB cases of all ages. HIV testing results were reported in 90.2% (101/112) of TB cases ages 25-44 years of age

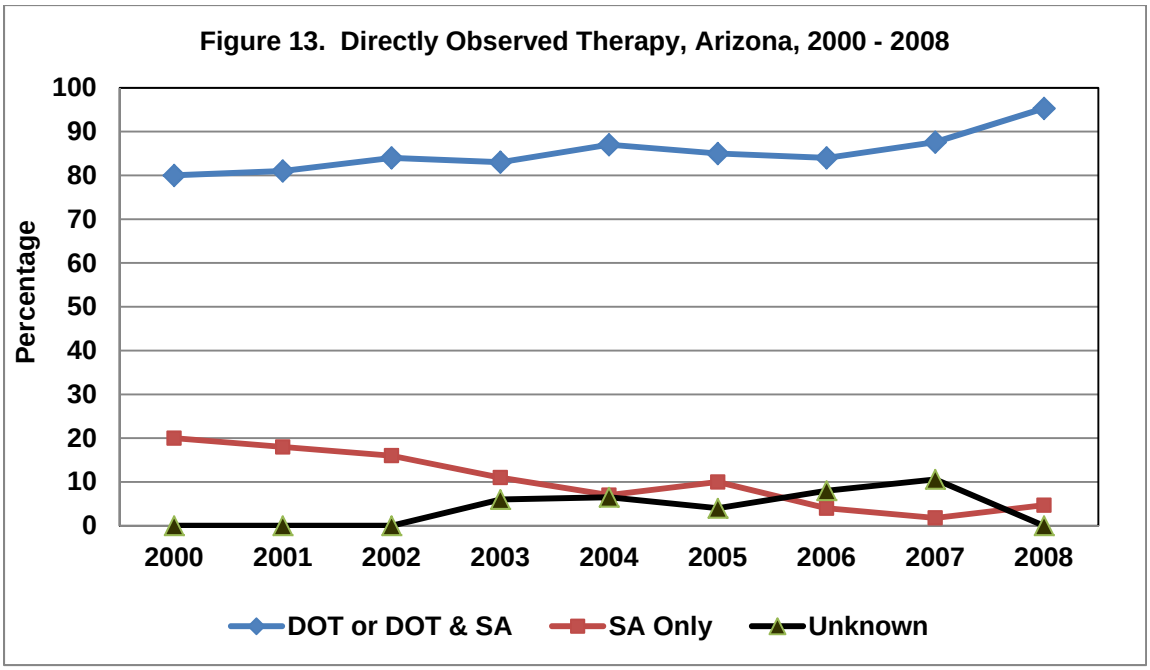
and 7.9% (8/101) of this age group were reported with TB/HIV co-infection. This age group accounted for 80% (8/10) of the TB/HIV co-infected cases (Figure 12).



IV. Directly Observed Therapy

Directly observed therapy (DOT) is the standard of care for administering TB medications. In DOT, health care workers observe the individual take his/her medications to ensure compliance with the treatment regimen.

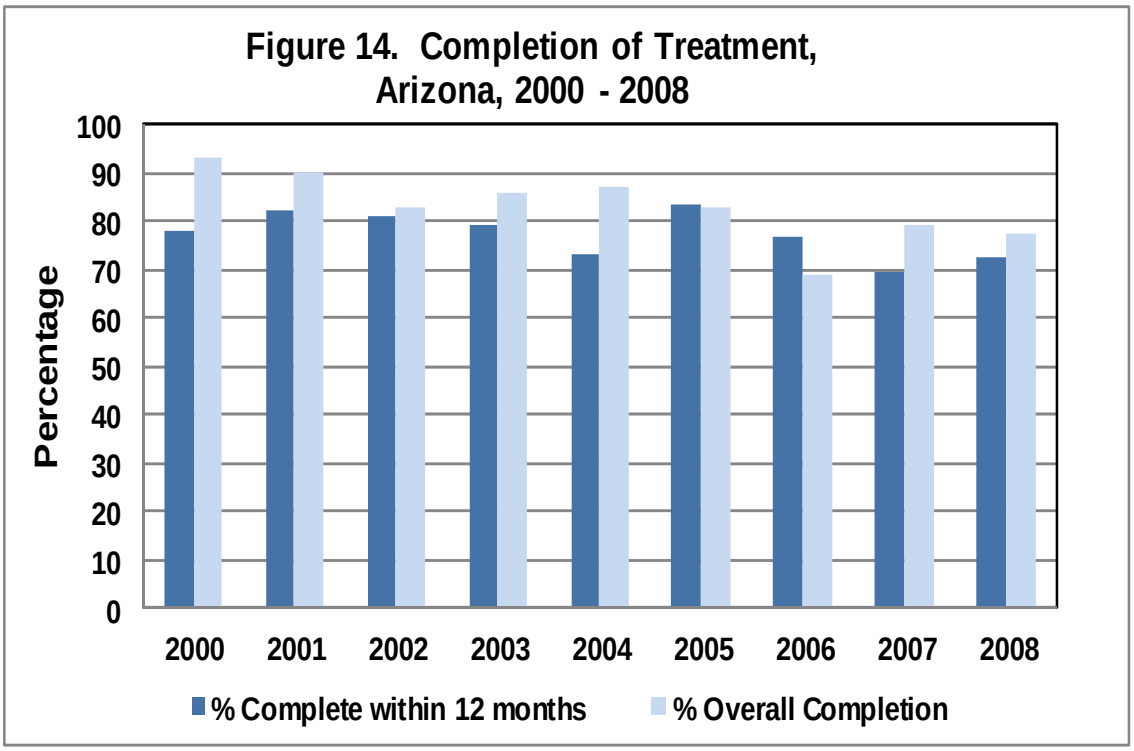
Figure 13 presents the number and percentage of cases receiving DOT. Due to the length of time to complete treatment for TB, 2008 data were the most recently finalized data available. In 2008, 90.8% (177/195) of TB cases who started treatment received DOT or a combination of DOT and self-administered treatment. Self-administered treatment only was reported in 7.7% (15/195) of the cases.

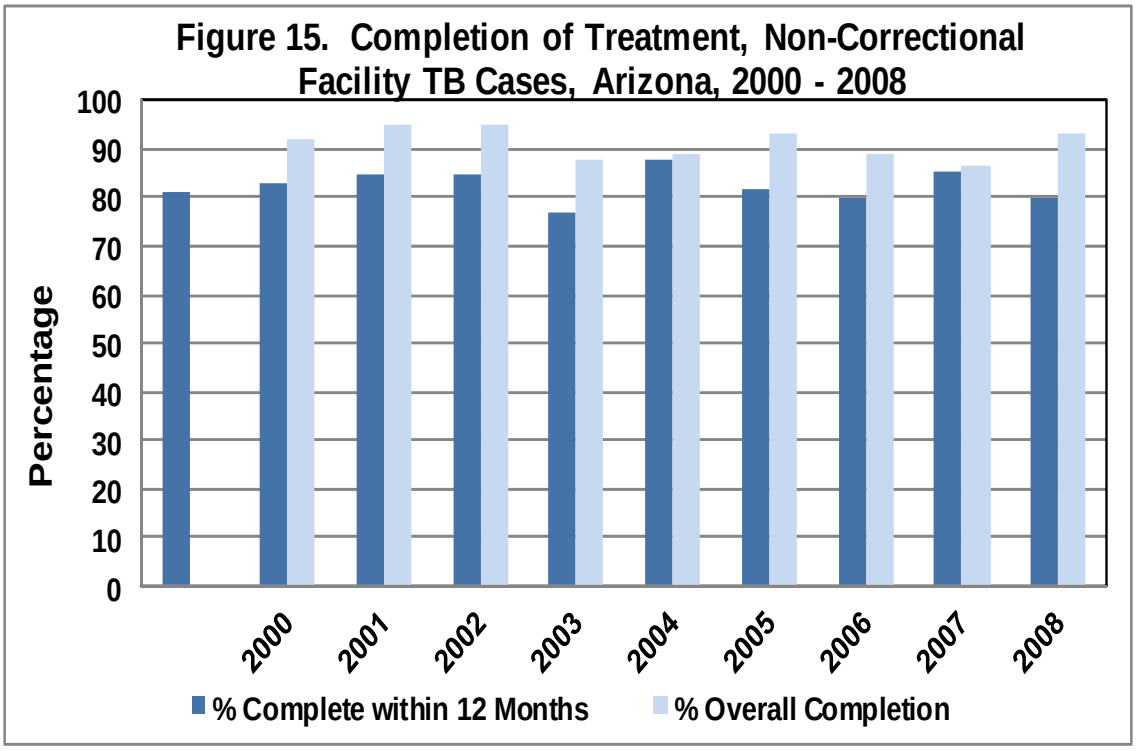


V. Completion of Treatment

The ADHS TB Control Program strives to achieve the national goal of completion of therapy within twelve months for 90% of the active cases. In 2008, 72.8% (142/195) of all cases completed treatment within twelve months. Overall, 79.2% (156/197) of the cases completed therapy in 2008, regardless of the time frame (Figure 14).

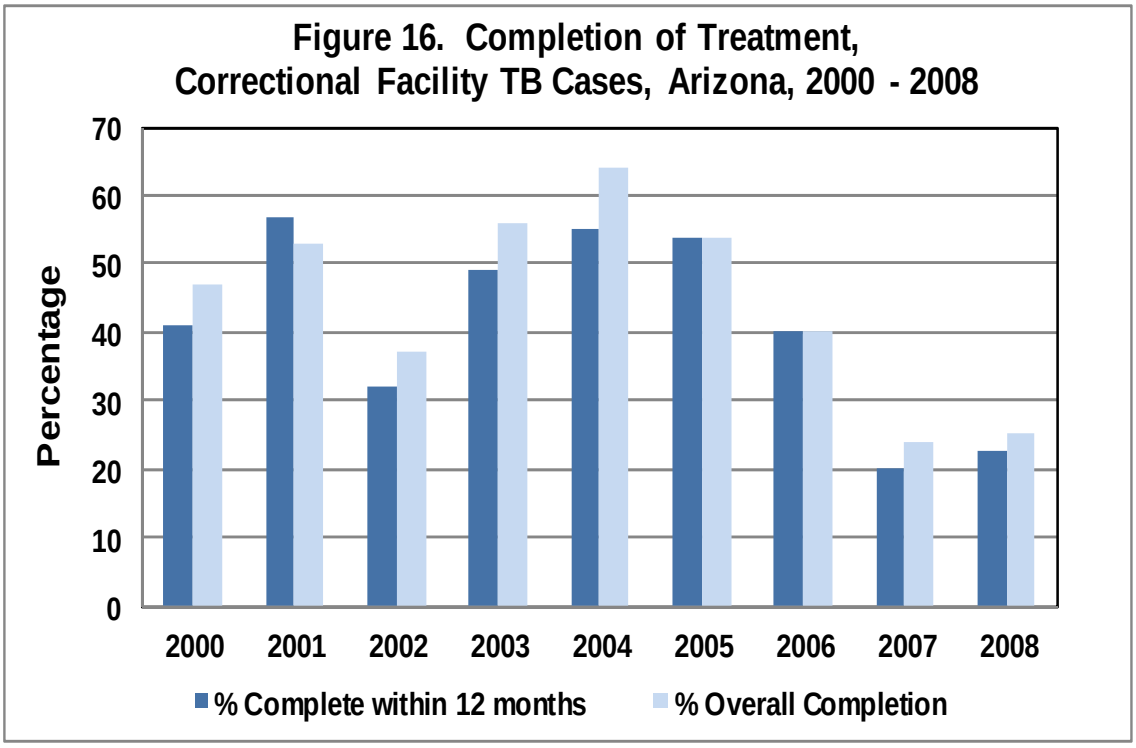
The low completion of treatment rates are impacted by the number of TB cases diagnosed in a correctional facility. The percentage of completion of treatment within twelve months for non-correctional facility cases was 85.2% (132/155). The overall completion of treatment for non-correctional facility cases was 93% (146/157) (Figure 15).



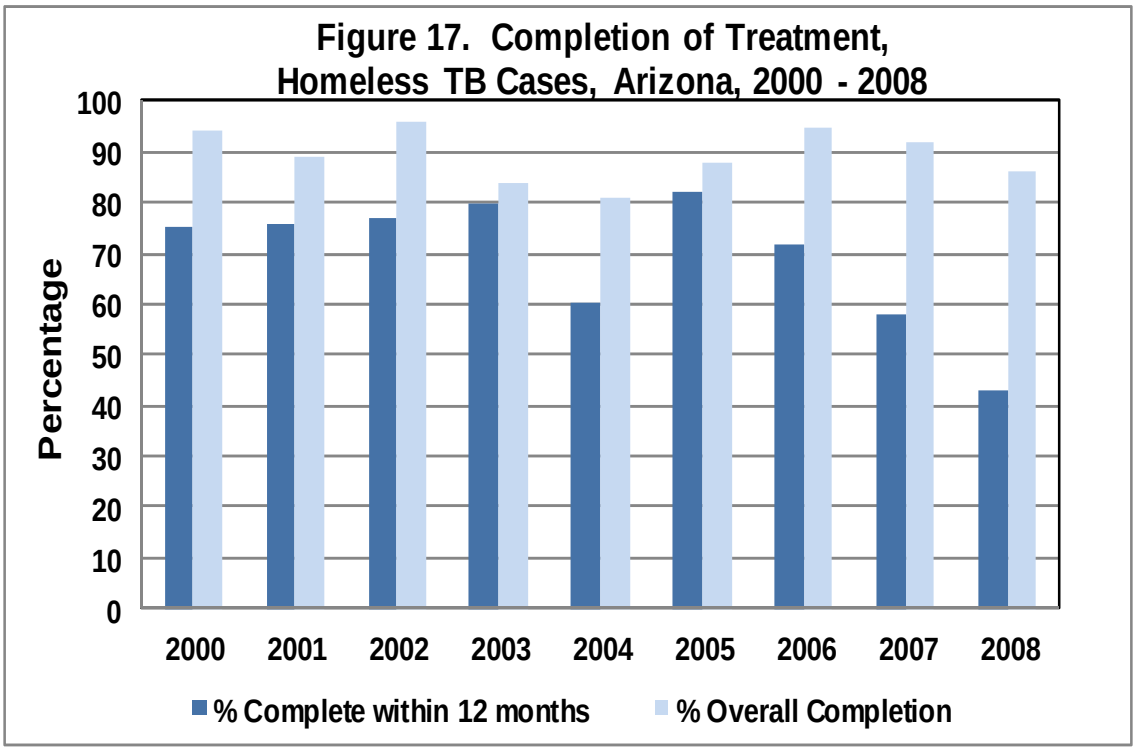


Only 22.5% (9/40) of correctional facility cases completed treatment within twelve months and 25% (10/40) completed treatment overall. Many of the correctional facility

cases were lost to follow-up after being released to the community or repatriated. Treatment outcomes are unknown for 75% (30/40) of the correctional facility cases. The high percentage of TB cases diagnosed in correctional facilities under the custody of ICE impacts the completion of treatment as the majority of these cases were subject to repatriation. This contributed to the high percentage of unknown treatment outcomes (Figure 16).



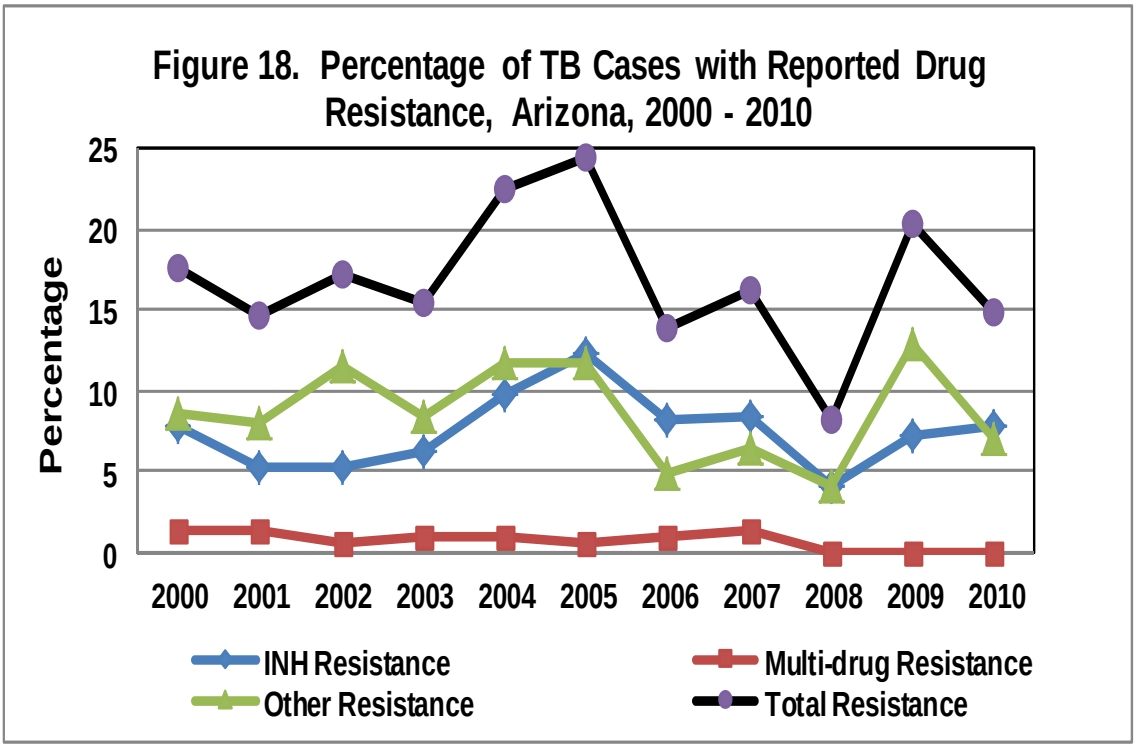
The completion of treatment within twelve months among homeless cases (Figure 17) was 42.9% (3/7) and overall completion was 85.7 (6/7). The Department continues to allocate housing vouchers, incentives, and enablers to LHDs for indigent individuals through the Arizona Lung Association. This assistance encourages completion of treatment among this population.



VI. Drug Susceptibility

Initial drug susceptibility testing was completed on 97% (196/202) of culture positive TB cases in 2010. Isoniazid (INH) resistance occurred among 7.7% (15/196) of the TB cases who received drug susceptibility testing (Figure 18).

Multidrug resistant TB (MDR-TB) is defined as resistance to INH and Rifampin. Extensively drug resistant TB (XDR-TB) is defined as resistance to INH and Rifampin, plus resistance to any fluoroquinolone and at least one of three injectable second-line anti-TB drugs such as Amikacin, Kanamycin, or Capreomycin. Total resistance includes resistance to any anti-TB drug. There were no multi-drug resistant or extensively drug resistant TB cases identified in Arizona in 2010.



VII. Contact Investigations

Contact investigations identify, examine, and evaluate all persons who are at risk of infection with *Mycobacterium tuberculosis* due to recent exposure to a diagnosed infectious case. It is a method for new case finding which allows for early treatment of disease and early detection and treatment of new infection. In some cases, it may prevent disease. It is an essential component of tuberculosis containment.

The local health departments are responsible for ensuring contact investigations are conducted at the local level. The local health departments either conduct the contact investigation or coordinate with responsible parties outside public health to ensure contact investigations are completed. Table 5 presents a summary of contact investigations for sputum smear positive TB cases from 2005-2008.

In 2008, 81.8% (63/77) of sputum smear positive cases had contacts identified. It is often difficult to obtain contact investigation information for correctional cases, and for those who are repatriated. Of the contacts to sputum smear positive TB cases, 66.4%

(503/757) were evaluated. In 2008, 57.6% (91/158) of infected contacts were started on LTBI treatment. Among those started on treatment, 71.4% (65/91) completed therapy.

Table 5. Summary of Contact Investigations, Arizona 2005-2008								
	2005		2006		2007		2008	
	No.	%	No.	%	No.	%	No.	%
Total Sputum Smear Positive TB Cases	101		125		90		77	
Sputum Smear Positive Cases with Contacts	79	78.2	89	71.2	65	72.2	63	81.8
Contacts Identified	470		723		489		757	
Contacts Evaluated	450	95.7	670	92.7	447	91.4	503	66.4
Infected Contacts Started on LTBI Therapy	80	61.1	99	61.9	105	68.6	91	57.6
Infected Contacts Completing LTBI Therapy	54	67.5	75	75.8	67	63.8	65	71.4

VIII. Activities

A. International Referral and Case Management

The ADHS TB Control Program coordinates with international referral agencies to ensure continuity of care for individuals with TB or suspected of having TB who return to their home country. CureTB facilitates the referral process with public health officials in Mexico. TBNet facilitates the referral process for all countries including Mexico. In 2010, the ADHS TB Control Program referred 106 cases to CureTB and TB Net.

B. Evaluation of Class B1/B2 Referrals

Immigrants and refugees traveling to the U.S. are evaluated for TB as part of the admission process, and assigned a classification according to the status of their disease. Class A individuals have TB disease and have been granted a waiver. Class B1 includes individuals with non-infectious pulmonary TB disease with negative acid-fast bacilli sputum smears and cultures and those with extrapulmonary TB disease. Class B2 individuals have positive skin tests but have negative evaluations for active TB disease. Class B3 individuals are recent contacts of a known TB case.

The CDC Division of Global Migration and Quarantine notifies the ADHS TB Control Program of all Class B individuals entering the state. The ADHS TB Control Program forwards these referrals to the local health departments of the counties where the individual will reside. The local health departments provide medical evaluation and treatment.

In 2010, the ADHS TB Control Program received 547 notifications for immigrants and refugees designated as Class A, B1, B2, and B3, of which 80% (438/547) were evaluated. There was one Class A immigrant/refugee, 340 individuals designated as Class B1 and 206 individuals designated as Class B2.

For the Class B2s, 34.5% (71/206) started treatment for latent TB infection with 28% (20/71) completing treatment. Treatment outcomes are unknown for 59.2% (42/71) including eleven individuals who have moved or have been lost to follow-up, and 31 individuals have unknown outcomes. Treatment is ongoing for nine individuals.

C. Border Health Activities

To ensure continuity of care for individuals being treated for TB who are repatriated to Mexico through Nogales, Arizona, the ADHS TB Control Program coordinates “Meet and Greets.” The Meet and Greet involves transferring these individuals from Arizona and federal law enforcement authorities to Mexican law enforcement and public health authorities.

A “Meet and Greet” requires coordination between the ADHS TB Control Program, ADHS Office of Border Health, Sonora Health Department, ICE, local health departments, and the correctional facility or detention center housing the inmate. The ADHS Office of Border Health coordinates the Meet and Greet with physicians from the Hospital General of Nogales, representatives from the Mexican National Institute of Immigration, and the Mexican Consulate.

Final treatment outcome is difficult to obtain because many of these individuals are lost upon return to their home country, despite the efforts of the referral agencies. In 2010, the Department arranged ten Meet and Greets.

IX. Conclusion

The ADHS TB Control Program continues to partner with local health departments, federal agencies, correctional facilities, and the international community to prevent and control TB in Arizona. Emphasis on completion of treatment for community and correctional cases requires close collaboration with local health departments and outside partners to prevent further spread of the disease and the emergence of drug-resistant TB.