



Tuberculosis Information

For Parents and Guardians

County of Santa Clara

Public Health Department

Administration
976 Lenzen Avenue, 2nd Floor
San José, CA 95126



April 15, 2014

Dear Parent/Guardian,

Santa Clara County continues to have one of the highest rates of tuberculosis (TB) in the United States. TB is a bacterial infection spread through the air and can affect the lungs, brain, bones, or any part of the body. Children can become infected when traveling, from household members, family, or visitors who are infected. Children exposed to someone with TB have a very high risk of developing active TB. If diagnosed early, TB is treatable and preventable.

Santa Clara County has required mandatory tuberculosis (TB) testing for students enrolling in school. However, **effective June 1, 2014, students enrolling into school will be required to undergo TB testing ONLY if their healthcare provider identifies a risk factor for TB exposure. Prior to school enrollment children will be required to have their healthcare provider complete the Santa Clara County Public Health Department Risk Assessment for School Entry form which is attached. Take this form to your provider to complete and return to your child's school.** This requirement applies to students attending both public and private schools in Santa Clara County and is based on the authority given the Santa Clara County Health Officer under the California Health and Safety Code, Section 121515.

This new policy will decrease unnecessary testing and allow healthcare providers to ensure that children who have TB infection are evaluated and treated promptly.

Thank you for helping us protect the health of your children.

Sincerely,

A handwritten signature in black ink, appearing to read 'Teeb Al-Samirai', written over a horizontal line.

Teeb Al-Samirai, MD
Tuberculosis Controller

Child's Name: _____ Birthdate: _____ Male/Female School: _____
Last, First month/day/year

Address _____ Phone: _____ Grade: _____
Street City Zip

Santa Clara County Public Health Department Tuberculosis (TB) Risk Assessment for School Entry

This form must be completed by a licensed health professional in the U.S. and returned to the child's school.

1. Was your child born in, resided, or traveled (for more than one month) to a country with an elevated rate of TB*? Yes No
2. Has your child been in close contact to anyone with tuberculosis (TB) disease in their lifetime? Yes No
3. Is your child immunosuppressed; current, or planned? (e.g., due to HIV infection, organ transplant, treatment with TNF-alpha antagonist or high-dose systemic steroids (e.g. prednisone ≥ 15 mg/day for ≥ 2 weeks). Yes No

*Most countries other than the U.S., Canada, Australia, New Zealand, or a country in western or northern Europe. This does not include tourist travel for <1 month (i.e., travel that does not involve visiting family or friends, or involve significant contact with the local population).

If YES, to any of the above questions, the child has an increased risk of TB and should have a TB blood test (IGRA, i.e. QuantiFERON or T-SPOT.TB) or a tuberculin skin test (TST) unless there is either 1) a documented prior positive IGRA or TST performed in the U.S. or 2) no new risk factors since last documented negative IGRA (performed at age ≥2 years in the U.S.) or TST (performed at age ≥6 months in the U.S.).

All children with a current or prior positive IGRA/TST result must have a medical evaluation, including a chest x-ray (CXR; posterior-anterior and lateral for children <5 years old is recommended). CXR is not required for children with documented prior treatment for TB disease, documented prior treatment for latent TB infection, or BCG-vaccinated children who have a positive TST and negative IGRA. If there are no symptoms or signs of TB disease and the CXR is normal, the child should be treated for latent TB infection (LTBI) to prevent progression to TB disease.

Enter test results for all children with a positive risk assessment:

Interferon Gamma Release Assay (IGRA) Date: _____	Result: <input type="checkbox"/> Negative <input type="checkbox"/> Positive <input type="checkbox"/> Indeterminate
Tuberculin Skin Test (TST/Mantoux/PPD) Date placed: _____ Date read: _____	Induration _____ mm Result: <input type="checkbox"/> Negative <input type="checkbox"/> Positive
Chest X-Ray Date: _____ Impression: <input type="checkbox"/> Normal <input type="checkbox"/> Abnormal	
LTBI Treatment Start Date: _____ <input type="checkbox"/> Rifampin daily - 4 months <input type="checkbox"/> Isoniazid/Rifapentine - weekly X 12 weeks <input type="checkbox"/> Isoniazid daily - 9 months <input type="checkbox"/> Other: _____	<input type="checkbox"/> Prior TB/LTBI treatment (Rx & duration): _____ <input type="checkbox"/> Treatment medically contraindicated <input type="checkbox"/> Declined against medical advice
Please check one of the boxes below and sign: <input type="checkbox"/> Child has no TB symptoms, no risk factors for TB, and does not require a TB test. <input type="checkbox"/> Child has a risk factor, has been evaluated for TB and is free of active TB disease. <input type="checkbox"/> Child has no new risk factors since last negative IGRA/TST and has no symptoms. <input type="checkbox"/> _____	
_____ Health Care Provider Signature, Title Date	

Name/Title of Health Provider: License Number: Facility/Address: Phone number:

County of Santa Clara

Public Health Department

Tuberculosis Prevention & Control Program

976 Lenzen Avenue, Suite 1700

San José, CA 95126

408.885.2440



Testing Methods

An Interferon Gamma Release Assay (IGRA, i.e., QuantiFERON or T-SPOT.TB) or Mantoux tuberculin skin test (TST) should be used to test those at increased risk. An IGRA can be used in all children ≥ 2 years old and is preferred in BCG-vaccinated children to avoid a false positive TST result. A TST of ≥ 10 mm induration is considered positive. If a child has had contact with someone with active TB disease (yes to question 2 on reverse), or the child is immunosuppressed, then TST ≥ 5 mm is considered positive. If a BCG-vaccinated child has a positive TST, and an IGRA is subsequently performed and is negative, testing is considered negative unless the child was exposed to someone with TB disease or is immunosuppressed. For immunosuppressed children, screening should be performed by CXR in addition to a TST/IGRA (consider doing both) and symptom review. TB screening can be falsely negative within 8 weeks after exposure, so are best obtained 8 weeks after last exposure.

Evaluation of Children with Positive TB Tests

- All children with a positive IGRA/TST result must have a medical evaluation, including a CXR (posterior-anterior and lateral is recommended for children <5 years old). A CXR is not required for a positive TST with negative IGRA in a BCG-vaccinated child, or if the child has documentation of prior treatment for TB disease or treatment for latent TB infection.
- For children with TB symptoms (e.g., cough for $>2-3$ weeks, shortness of breath, hemoptysis, fever, weight loss, night sweats) or an abnormal CXR consistent with active TB disease, report to the County of Santa Clara Public Health Department TB Program within one day. The child will need to be evaluated for TB disease with sputum AFB smears/cultures and nucleic acid amplification testing. A negative TST or IGRA does not rule out active TB disease in a patient with symptoms or signs of TB disease. The child cannot enter school unless active TB disease has been excluded or treatment has been initiated.
- If there are no symptoms or signs of TB disease and the CXR is normal, the child should be treated for latent TB infection (LTBI). Do not treat for LTBI until active TB disease has been excluded.
- Short-course regimens (rifampin daily for four months or 12-dose weekly isoniazid/rifapentine) are preferred (except in persons for whom there is a contraindication, such as a drug interaction or contact to a person with drug-resistant TB) due to similar efficacy and higher treatment completion rates as compared with 9 months of daily isoniazid.

Treatment Regimens for Latent TB Infection

- Rifampin 15 - 20 mg/kg (max. 600 mg) daily for 4 months
- 12-dose Weekly Isoniazid/Rifapentine (3HP) Regimen:
 - Isoniazid
 - 2-11 years old: 25 mg/kg rounded up to nearest 50 or 100 mg (max. 900 mg)
 - ≥ 12 years old: 15 mg/kg rounded up to nearest 50 or 100 mg (max. 900 mg)
 - Rifapentine
 - 10.0-14.0 kg: 300 mg
 - 14.1-25.0 kg: 450 mg
 - 25.1-32.0 kg: 600 mg
 - 32.1-50.0 kg: 750 mg
 - >50 kg: 900 mg
 - Vitamin B6 50 mg weekly
- Isoniazid 10 mg/kg (range, 10-15 mg/kg; max. 300 mg) daily for 9 months. Recommended pyridoxine dosage is 25 mg for school-aged children (or 1-2 mg/kg/day).

Clinics for Tuberculosis Screening

Valley Connection

Call for appointment: 888-334-1000

Valley Health Center **Bascom**: 751 S. Bascom Avenue, San Jose, 95128

Valley Health Center **East Valley**: 1993 McKee Rd, San Jose, 95116

Valley Health Center **Gilroy**: 7475 Camino Arroyo, Gilroy, 95020

Valley Health Center **Milpitas**: 143 N. Main St., Milpitas, CA 95035

Valley Health Center **Moorpark**: 2400 Moorpark Ave, San Jose, 95128

Valley Health Center **Sunnyvale**: 660 Fair Oaks Ave., San Jose, 94086

Valley Health Center **Tully**: 500 Tully Rd., San Jose, 95111

Alviso

Alviso Health Center

1621 Gold Street, Alviso, 95002; 408-935-3900

Mon-Fri 8:00am-5:00pm

Daly City

RotaCare Bay Area, Inc.--Daly City Clinic

Seton Medical Center-Ground Floor;

1900 Sullivan Avenue, Daly City, 94015; 650-991-6046

Mon: 5:00pm-7:00pm

East Palo Alto

Ravenswood Family Health Center

1798 Bay Road, East Palo Alto, 94303; 650-330-7400

Mon 8:45am-7:00pm, Tue-Fri 8:45am-5:00pm,

Closed the 4th Friday of the month at 2:00pm

Gilroy

Planned Parenthood Mar Monte--Gilroy

760 Renz Lane, Gilroy, 95020;

Call for appointment: 408-847-1739

Mon 9:30am-5:30pm, Wed 10:00am-7:00pm,

Tue/Thu/Fri 9:00am-5:00pm, Sat 9:00am-2:00pm,

Gardner South County Health Center

7526 Monterey St, Gilroy, CA 95020; 408-848-9400

M-F 8:00am-5:00pm, Sat 8:00am-4:30pm;

Accept insurance or fee: sliding scale, \$40 for established patients;

Accepts adults and children;

No X-rays at site - refer Chest X-rays to SLH and San Martin Clinic.

Gilroy Neighborhood Health Clinic

7861 Murray Ave, Gilroy, CA 95020; 408-842-1017

M-F: 8:00am-4:00pm (closed 12pm-1pm); appointment preferred

\$25 for patients without insurance; can order QuantiFeron.

No X-rays at site, refers Chest X-rays to San Martin VHC Clinic, or

CHDP exam to VMC;

Half Moon Bay

RotaCare Bay Area, Inc.--Coastside Clinic

225 South Cabrillo Hwy, Suite 100A, Half Moon Bay, 94019;

650-573-3774;

Wed 5:00pm-7

No pediatric or radiology services on site

Los Altos

Planned Parenthood Mar Monte-Foothill College (Foothill Students & Staff Only)

12345 El Monte Road, Los Altos, 94022; 650-949-7243;

Mon-Thu 8:30am-4:30pm; Closed 1:00pm-2:00pm; Closed Every

4thTue at 3:30pm

Menlo Park

Ravenswood at Bell Haven

100 Terminal Avenue, Menlo Park, 94025; 650-321-0980

Mon/Wed/Fri 8:00am-5:00pm, Tue 12:30pm-5:00pm,

Sat 8:00am-12:00pm

Milpitas

Alliance Occupational Medicine in Milpitas

315 S Abbott Avenue, Milpitas, CA 95035; 408-790-2900;

M-F 7:00am-7:00pm, No appointment is needed, just walk in;

\$20 for TST, do not accept any private insurance, \$100 for

Quantiferon;

X-rays at site, approved positive TB test shown as necessary;

X-rays time: M-F 8:00am-5:00pm.

Mountain View

MayView Community Health Center--Mountain View

100 Moffett Blvd., Suite 101, Mountain View, 94043;

650-963-3323

Mon, Wed, Fri 8:30am-5:00pm, Tue, Thu 8:30am-8:30pm,

Sat 9:00am-4:00pm

Planned Parenthood, Mountain View

225 San Antonio Road, Mountain View, CA 94040; 650-948-0807;

Walk-in: 8:30am-4pm

Fee: sliding fee scale; Accept adults and children;

No X-rays at site - refer to VMC for CXR f/u if needed.

Mayview Community Health Center at Mt. View

900 Miramonte Ave, 2nd Fl, Mountain View, CA 94040;

650-965-3323;

1:00-3:00pm (1st and 3rd Tuesday of the month);

Accept Healthy Kids, Healthy Families, or Fee: \$28.00;

Accept adults and children;

No appointment necessary, but accept first 20 patients.

Mountain View Clinic @ El Camino Hospital (Rota Care Clinic)

2400 Grant RD, Park Pavilion Building, Mountain View, CA 94040;

650-988-820;

Mon: 5:00pm-7:00 pm, Tue: 9:00am-11am, Fri: 9am-noon

Accepts adult and children;

No appointment necessary

Palo Alto

Gardner Packard Children's Health Center

730 Welch Road, 1st Floor, Palo Alto, CA, 94304; 650-497-8820;

Mon-Fri 9:00am-5:00pm

Mayview Community Health Center at Palo Alto

270 Grant Ave, Palo Alto, CA 94306; 650-327-8717;

No appointment necessary on 2nd and 4th Wednesday of the month

1:00 pm-3:00pm

Accepts Healthy Kids, Healthy Families, or Fee: \$28.00;

Accepts adults and children

San Mateo

Planned Parenthood Mar Monte--San Mateo

35 Baywood Avenue, San Mateo, 94401; 650-235-7940;

Mon 8:30am-4:00pm, Thu&Fri 10:30am-3:00pm

San Jose

Asian American for Community Involvement

2400 Moorpark Ave, Ste 319, San Jose, CA 95128;

408-975-2763;

M-F 8:30am-12:30pm, 1:30pm-5:30pm;

Appointment only, TST \$20 for all patients;

No X-rays at site, refers chest X-rays to SCCVMC.

San Jose

San Jose High Neighborhood Health Clinic

1149 E. Julian St, Bldg. H, San Jose, CA 95116; 408-535-6001;
M-F 8:00am-4:00pm, appointment;
IZ/TST: Tuesday 1:00 pm-3:00 pm (Walk-in);
\$25 for people who do not have insurance;
No X-rays on site - refers to Just X Rays and VMC

CompreCare Health Center

3030 Alum Rock Ave, San Jose, CA 95127; 408-259-8400;
M-Sat 8:00am-5:30pm with appointment, walk-in:8am-5pm (M-F);
Fee: sliding scale, accept adult and children.

San Jose Clinic

Washington School, 100 Oak Street (Clinic located on Edwards St.
behind the school), San Jose, CA 95110; 408-295-0980;
Appointment or walk-in;
M-F: 8am-4:30pm (closed 12pm-1pm for lunch break);
Visit Fee: \$25.00 for everyone;
No X-rays at site, refers chest X-rays to Just X-Ray.

Gardner Health Center

195 E. Virginia St, San Jose, CA 95112; 408-998-8814 for appointment;
M-F 8:30am-4:30pm, by appointment only
TST: Accepts insurance, Medical, or fee: \$15; Accepts adults and
children; No X-rays at site, refers chest X-rays to JXR and VMC.

St. James Health Center

55 E. Julian St., San Jose, CA 95112;
408-918-2600, by appointment only, 408-918-2641
M-F 8:30am-5:00pm;
TST: Accepts insurance, Medical, or fee: \$15; Accepts adults and
children; No X-rays at site, refers chest X-rays to JXR and VMC.

San Jose Foothill Family Community Clinic

2880 Story Road, San Jose, 95127; 408-729-4282;
M-F 8:00am-8:00pm, S-S 8:00am-5:00pm;
Walk-in: 8am-11am, 1pm-3pm (M, T, W, F, S); Prefer appointment;
Accept insurance, sliding fee scale, or \$35.00 for uninsured;
Accept adult and children;
No X-rays at site, refers CXR's to VRI/Just X-Ray.

Indian Health Center

1333 Meridian Ave, San Jose, CA 95125; 408-445-3400;
M-F 8:00am-5:00pm New patients need to register prior to
appointment for TST;
Fee: \$30.00 Accepts adult and children;
No X-rays at site, refers to other sites for X-rays.

Franklin McKinley School Center

645 Wool Creek Dr., San Jose, CA 95112; 408-283-6051;
Call for appointment; \$25 for pts without insurance;
No X-rays at site

Overfelt Neighborhood Health Clinic

1835 Cunningham Ave, San Jose, 95122; 408-347-5988;
Mon-Wed & Fri 8:00am-4:30 pm (closed 12pm-1pm for lunch);
Immunizations/TST: Tuesday 8:00-10:30.

Mar Monte Community Clinic

2470 Alvin Ave. Ste 60, San Jose, CA 95121
Call for appointment: 408-274-7100; Sliding fee scale
Mon, Tue, Thurs., Fri 8:45am-5:00pm, W 8:45am-
6:30pm, Sat 8:45am-1:00pm.
No X-rays at site - refer to VMC for CXR.

Family Medicine Center at O'Connor

455 O'Connor Drive, Suite 200, San Jose, 95128; 408-283-7676;
Mon-Fri 8:30am-5:30pm

Foothill Health Center

2380 Montpelier Drive, Suite 200, San Jose, 95116; 408-254-1800;
Mon-Fri 8:00am-12:00pm

Gardner Downtown Health Center

725 East Santa Clara Street, San Jose, 95112;
408-794-0500 or 408-794-0501;
Mon-Fri 8:30am-5:30pm

Independence High School Clinic (Pediatrics)

1776 Educational Park, Drive H Building, San Jose, 95133;
408-928-9599;
Mon-Fri 9:30am-1:30pm

Indian Health Center--Silver Creek

1462 East Capital Expressway, San Jose, 95121;
408-445-3431;
Mon-Fri 8:30am-5:30pm

Mount Pleasant High School Clinic (Pediatrics)

1650 South White Road, San Jose, 95127; 408-928-5250;
Mon-Fri 8:00am-5:00pm

North East Medical Services--Lundy Clinic

1715 Lundy Avenue, Suite 108-116, San Jose, 95131;
408-573-9686;
Mon-Sat 8:30am-5:00pm;
Closed Mon-Fri 12:00pm-1:00pm, Sundays and Holidays

Planned Parenthood Mar Monte--Blossom Hill

5440 Thornwood Drive, Suite G, San Jose, 95123; 408-281-9777;
Mon-Wed 8:30am-6:30pm, Tue/Thu/Fri 8:30am-5:00pm

Planned Parenthood Mar Monte--Eastside

3131 Alum Rock Avenue, San Jose, 95127; 408-729-7600;
Mon&Thu 8:30am-7:00pm, Tue 8:00am-5:00pm, Wed-Fri 8:30am-
5:00pm

Washington Neighborhood Clinic

100 Oak St. San Jose, 95110; 408-295-0980
Call for appointment Mon-Fri 8:00-4:30

Yerba Buena High School Clinic (Pediatrics)

1855 Lucretia Avenue, Room 112, San Jose, 95122; 408-347-4752;
Mon-Fri 11:30am-3:30pm Planned Parenthood, San Jose
1691 The Alameda, San Jose, CA 95126; 408-287-7526;
Fee: \$35.00 for established patients;
No X-rays at site refer to VMC for CXR f/u if needed.

Santa Clara

Alliance Occupational Medicine in Santa Clara

2737 Walsh Avenue, Santa Clara, CA 95051; 408-228-8400;
M-F 7:00am-7:00pm;
No appointment is needed, just walk in;
\$20 for TST, does not accept any private insurance, \$100 for
Quantiferon;
X-rays on-site, time: M-F 8:00am-5:00pm.

Sunnyvale

MayView Community Health Center--Columbia Neighborhood Center

785 Morse Avenue, Sunnyvale, 94085; 408-746-0455;
1st & 3rd Tuesday of the month

Redwood City

Planned Parenthood Mar Monte--Redwood City Express

2907 El Camino Real, Redwood City, 94063; 877-855-7526;
Tue 8:30am-4:00pm

Tuberculosis Health Brief

Santa Clara County



What is Tuberculosis?

Tuberculosis (TB) is an ancient disease that still affects many people in Santa Clara County. TB is caused by the bacteria *Mycobacterium tuberculosis* and is spread from person to person through the air when an individual with TB coughs, sneezes, or speaks. Individuals who breathe in infected droplets become infected with TB and are at risk for developing TB disease.

People who have TB can have two types of infection:

1. Latent or “silent” TB infection: Individuals with latent TB infection (LTBI) have a small amount of TB in their bodies that their immune system keeps under control. They do not have symptoms, are not contagious and may remain that way for years. Treatment of LTBI can prevent TB disease in the future.
2. Active TB disease: Occurs when TB bacteria multiply and a person develops symptoms such as cough, fever, or weight loss. They can also spread disease to others. Active TB disease can develop in people with LTBI when the immune system is weakened by stress or a medical illness, such as diabetes, cancer, kidney disease, or HIV. Certain behaviors, such as smoking, also increase an individual’s risk for developing TB disease.

TB usually affects the lungs, but can also affect any part of the body such as lymph nodes, bones and joints, kidneys, intestines, and the brain. TB can be treated but if untreated, can be fatal.

TB in Santa Clara County

There were 181 cases of TB in Santa Clara County (SCC) in 2013¹ which is an increase from the downward trend through 2012 (N=176)². This represents a rate of 9.8 cases per 100,000 residents in Santa Clara County¹ which is higher than the rate in California overall of 5.7 per 100,000 people³ and more than three times the United States rate of 3.0 per 100,000 people⁴.

Who’s at risk for TB infection and developing active TB disease?

People who were born in or travel to countries with high TB rates are at the highest risk for being exposed to TB. For people with LTBI, certain medical conditions such as diabetes, end stage renal and behaviors increase the risk of progression from latent TB infection to active TB disease⁴.

- People with LTBI and diabetes are three times more likely to develop active TB disease than non-diabetics with latent TB infection⁶.

- 20% (36/181) of Santa Clara County TB cases identified in 2013 also had diabetes¹.
- People with LTBI who smoke are 2.5 times more likely to develop active TB disease than non-smokers with LTBI⁸. Studies have shown that people with LTBI who are exposed to secondhand smoke are also more likely to develop active TB disease compared to those with TB infection not exposed to second hand smoke¹⁰.
- According to a World Health Organization review, people with heavy alcohol use are almost 3 times more likely to develop active TB disease than those who do not drink alcohol¹¹.
- Other risk factors that increase the likelihood of progression from LTBI to active TB disease include HIV or other immune-compromising conditions, chronic kidney disease, or immunosuppressant medications such as TNF- α inhibitors or steroids (Table 1).

Table 1. Risk factors and comorbidities of TB cases, Santa Clara County, 2013¹

Risk factors	Number of Cases N=181 (%)
Diabetes mellitus	36 (20%)
Immunosuppression (not HIV/AIDS)	8 (4%)
Excess alcohol use in past year	6 (3%)
End-stage renal disease	6 (3%)
Homeless within the past year	6 (3%)
Contact of infectious TB patient	3 (2%)
Post-organ transplantation	3 (2%)
Incomplete LTB treatment	3 (2%)
HIV*	2 (1%)
Missed contact	2 (1%)
TNF-alpha antagonist therapy	1 (0.5%)
Contact of MDR-TB patient	1 (0.5%)

Source: California Reportable Disease Information Exchange, 2013;
*163/181 (90%) of TB cases had documented screening for HIV infection

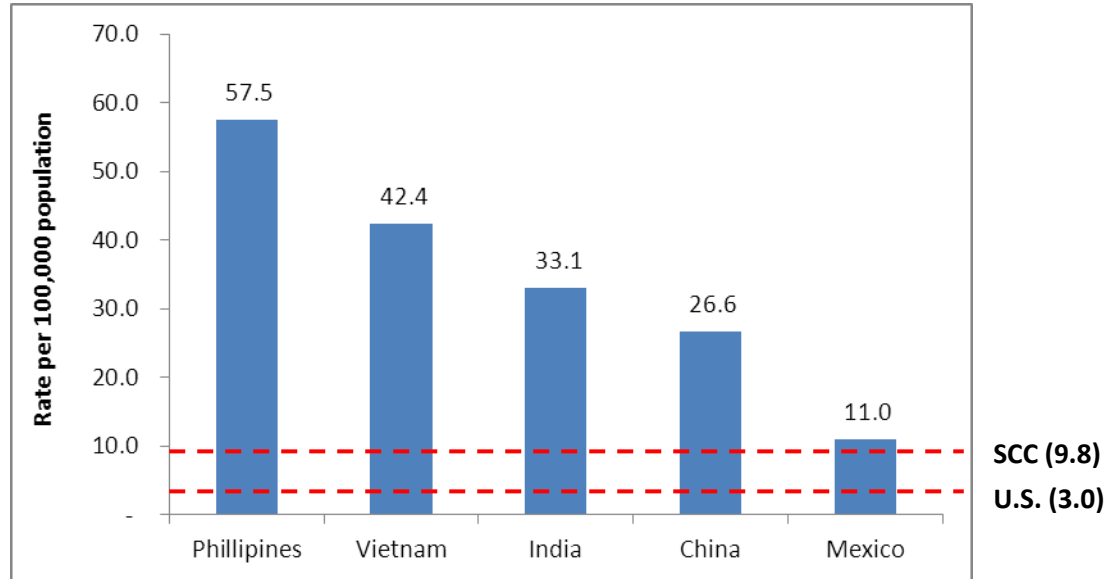
Who had TB in Santa Clara County in 2013?

In 2013, the majority of TB cases (58%) were among people between 25 and 64 years of age. Children and young adults between 0 to 24 years of age accounted for 10% of TB cases. Almost 32% of people diagnosed with TB were older than 65 years of age¹. The majority of SCC TB cases are of Asian or Hispanic race/ethnicity. Although the TB case rate among Asians in Santa Clara County has been trending downward from a peak of 37 per 100,000 people in 2007¹², it remains eight times the overall rate of TB in the US at 24.7 per 100,000 people in Santa Clara County. This rate is higher among foreign-born residents from certain Asian countries (Figure 1).

In 2013, 91% of active TB cases were in foreign-born residents, primarily from the following countries: Vietnam, Philippines, India, Mexico and China. The majority (67%) of foreign-born

residents who developed active TB disease had lived in the United States for more than 5 years¹.

Figure 1: Tuberculosis case rates by country of origin, Santa Clara County, 2013¹



How does TB make us sick?

When TB affects the lungs, it is called pulmonary TB and can be spread to others. In 2013, almost three quarters (73%) of TB cases in Santa Clara County had pulmonary TB¹.

Five adults with TB died in Santa Clara County, 2 of whom were younger than 64 years of age and 3 were 65 years or older². No children died of TB in Santa Clara County in 2013¹.

Drug Resistant TB

TB that is resistant to standard treatment is challenging to treat and can require 2 years of a complicated medication regimen. In 2013, 14% (21/145) of TB cases in Santa Clara County with known drug sensitivity results were resistant to at least one of the standard TB medications (rifampin, isoniazid, ethambutol, or pyrazinamide). Of those without a prior history of TB, 13% (17/135) were resistant to isoniazid¹, which was higher than the national average in 2012 (8.9%)⁵. Multi-drug resistant TB, which is resistant to both isoniazid and rifampin accounted for 3.0% of culture confirmed TB cases in Santa Clara County in 2013¹. No extensively drug resistant cases were identified in Santa Clara County in 2013.

What should people do to know if they are at risk?

- If someone was born in or travels to countries where TB is endemic such as countries in Asia, Eastern Europe, Africa, or Latin America then they are at risk for having been exposed to TB and should ask their doctor about TB screening.
- If someone has a positive TB test then they should talk to their doctor about getting treated for latent TB infection in order to prevent the development of active TB disease.
- Treatment of latent TB infection is especially important for children, people with diabetes, HIV, people who smoke, a history of smoking, or exposure to tobacco smoke, chronic kidney disease, or who might be treated with immunosuppressant medications (e.g. prednisone, TNF- α inhibitors).

1. California Reportable Disease Information Exchange, 2013

2. California Reportable Disease Information Exchange, 2012

3. California Department of Public Health Tuberculosis Control Branch

4. Centers for Disease Control and Prevention, Centers for Disease Control and Prevention. Trends in Tuberculosis – United States, 2013. MMWR 2014; 63:229-33

5. Centers for Disease Control and Prevention, Reported Tuberculosis in the United States 2012, <http://www.cdc.gov/tb/statistics/reports/2012/pdf/report2012.pdf>

6. Jeon CY, Murray MB. Diabetes mellitus increases the risk of active tuberculosis: a systematic review of 13 observational studies. PLoS Med. 2008 Jul 15;5(7):e152

7. Dooley, K.E., et al., Impact of diabetes mellitus on treatment outcomes of patients with active tuberculosis. Am J Trop Med Hyg, 2009. 80(4): p. 634-9.

8. Santa Clara County Department of Public Health Department, 2009 Behavioral Risk Factor Survey

9. Bates MN, Khalakdina A, Pai M, Chang L, Lessa F, Smith KR. Risk of tuberculosis from exposure to tobacco smoke: a systematic review and meta-analysis. Arch Intern Med. 2007 Feb 26;167(4):335-42.

10. Leung CC, Lam TH, Ho KS, Yew WW, Tam CM, Chan WM, Law WS, Chan CK, Chang KC, Au KF. Passive smoking and tuberculosis. Arch Intern Med. 2010 Feb 8;170(3):287-92.

11. Rehm, J., et al., The association between alcohol use, alcohol use disorders and tuberculosis (TB). A systematic review. BMC Public Health, 2009. 9: p. 450.

12. Tuberculosis Information Management System, 2007