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TO: Each Supervisor

FROM: Jonathan E. Fielding, M.D., M.P.H. *J.E. Fielding MD*  
Director and Health Officer

SUBJECT: **LOS ANGELES COUNTY TUBERCULOSIS DATA 2013**

This is to provide you with a summary report on tuberculosis cases from 2013 in Los Angeles County. Overall there was a small increase in the number of cases with a total of 666 cases for 2013, compared to 625 in 2012. This represents a 7% increase compared to 2012, but compared to the three year average (2010-2012), only a 1% increase. Almost 80% of cases are among foreign-born individuals who were infected in their home countries, and were found to have active TB after their arrival in the United States.

The increase in cases in 2013 is mainly among the homeless, and is partly due to increased case finding and on-going transmission. While important, these cases do not represent a threat to the general population.

The attached report provides you additional information on the 2013 tuberculosis cases broken out by race/ethnicity and geography. In addition it provides information on the on-going work of the department to address tuberculosis in the homeless.

If you have any questions or need additional information, please let me know.

JEF:CAH:cah

Attachment

c: Chief Executive Officer  
County Counsel  
Executive Officer, Board of Supervisors



## TUBERCULOSIS IN LOS ANGELES COUNTY -- 2013 SUMMARY

This summary provides information about the total number of Tuberculosis (TB) cases reported in 2013 and progress towards controlling and preventing the disease in Los Angeles County (LAC). The key points highlighted in this report are:

- The number of tuberculosis cases in LAC declined by 70% between 1992 and 2013
- Almost 80% of cases occur among the foreign born with most of the remainder occurring among the homeless
- The number of cases in LAC increased 7% between 2012 and 2013 (a 1% increase over the 2010-2012 average), in part due to intensive and continuing efforts to find and treat cases among the homeless

### What is Tuberculosis?

Tuberculosis (TB) is caused by a bacterium called *Mycobacterium tuberculosis*. The bacteria usually attack the lungs. If not treated properly, TB disease can be fatal. TB is spread through the air from a person with tuberculosis disease to close contacts.

**Latent TB Infection.** Latent TB occurs when bacteria live in the body without making people sick. This is by far the most common form of TB. In most people who breathe in TB bacteria and become infected, the body is able to fight the bacteria to stop them from growing. People with latent TB infection do not feel sick and do not have any symptoms. They are not infectious; they cannot spread TB bacteria to others. However, if TB bacteria become active in the body and multiply, the person will go from having latent TB infection to having TB disease. Proper treatment can prevent people with latent TB from developing TB disease.

**TB Disease.** TB bacteria become active if the immune system can't stop them from growing. When TB bacteria are active (multiplying in the body), it is called TB disease. People with TB disease are sick. They may be able to spread the bacteria to people with whom they have close contact. Many people who have latent TB infection never develop TB disease. Some people develop TB disease soon after becoming infected (within weeks) before their immune system can fight the TB bacteria. Other people may get sick years later when their immune system becomes weak for another reason.

## **Current Status of Tuberculosis in Los Angeles County**

Over the past 20 years, there has been an extraordinary decline in the number of new tuberculosis (TB) cases in LAC from 2,198 cases in 1992 down to 666 cases in 2013, a 70% decline. Corresponding TB incidence rates have also decreased from a peak of 25.6 cases per 100,000 population in 1992 to 7.1 in 2013, the second lowest rate ever recorded in LAC (a rate of 6.7 cases per 100,000 were reported in 2012). This success can be attributed to several factors, including intensive public health case management (use of Directly Observed Therapy to ensure completion of treatment, timely and thorough contact investigations of infectious cases, and improved infection control measures).

TB cases among the foreign-born continue to represent the large majority of TB cases, 79% of the total number of TB cases in LAC in 2013 (Table 1). The high rate of latent TB infection (LTBI) (estimated at 18%), among the foreign-born population creates a large pool with the potential to reactivate and become future TB.

The 666 TB cases reported in LAC in 2013 represent an increase of 41 cases (a 6.6% increase) when compared to the 625 TB cases reported in 2012 (Table 1), though only a 1% increase over the 2010-2012 average number of cases. A significant part of the increase is due to the ongoing transmission among the homeless. In 2013, a total of 65 TB cases were reported among the homeless compared to 39 cases reported in 2012 (Table 1). One factor contributing to the increase in cases reported among the homeless is the increased efforts by the Department of Public Health (DPH) to detect cases and evaluate contacts in that population. While important, these cases do not represent a threat to the general population.

Other demographic characteristics of the 2013 TB cases are detailed in Table 1 and include the following highlights: 60% of all TB cases occur among males; 32% of all cases are 65 years of age or older; and 44% and 41% are Hispanic and Asian, respectively. Geographic information on the place of residence of TB cases and the number of homeless TB cases, by Service Planning Area (SPA), are detailed in Tables 2 and 3, respectively. A total of 42 of the homeless cases (65% of all homeless cases) are located in SPAs 4 and 6 (Table 3).

## **Prevention and Control Strategies**

The strategies that have achieved significant reductions in TB morbidity (e.g., diagnosis and treatment of TB cases and thorough evaluation and treatment of LTBI among contacts) must be continued. However, to accelerate the decline of TB in LAC, prevention (i.e., identification and treatment of latent TB infection) must become an increasing priority. Reaching the large number of people in LAC who have LTBI can best be accomplished by primary care providers incorporating targeted testing into their standard practice. Targeted testing entails identifying those at highest risk for progression from latent infection to active TB with subsequent management of those found to have LTBI.

LAC has an ongoing outbreak of TB in the homeless population which has triggered a comprehensive response by DPH and community partners. The response includes:

1. Identification of close, sustained contacts of homeless TB cases so they can be located, screened, and offered preventive treatment;
2. Implementation of the DPH Homeless Shelter Guidelines for the prevention of TB transmission in shelter settings (*Preventing Tuberculosis in Homeless Shelters: A Guide for Preventing and Controlling TB and other Aerosol Transmissible Diseases in Los Angeles County Facilities*); and
3. Implementation of an annual TB screening program for the homeless population.

The homeless population poses challenges for TB control due to the high mobility of the population, crowding that may occur in shelter facilities (especially during the winter season), mental health and nutritional issues, and concurrent medical conditions that make them more vulnerable to developing active TB disease. DPH is working in partnership with homeless shelter operators and health care providers to implement newly issued guidelines.

**Table 1. Demographics TB Cases, Los Angeles County, 2012-2013\***

(Updated 2/12/14)

Year	All TB Cases				Homeless TB Cases			
	2013		2012		2013		2012	
<b>Total Cases</b>	<b>666</b>		<b>625</b>		<b>65</b>		<b>39</b>	
<b>Sex</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
Female	264	40%	234	37%	8	12%	4	10%
Male	402	60%	391	63%	57	88%	36	90%
<b>Age Group</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
0-4	18	3%	9	1%	0	0%	0	0%
5-14	7	1%	4	1%	0	0%	0	0%
15-34	118	18%	126	20%	6	9%	8	20%
35-44	98	15%	67	11%	16	25%	7	18%
45-54	94	14%	93	15%	23	35%	8	20%
55-64	120	18%	130	21%	12	18%	16	40%
65+	211	32%	196	31%	8	12%	1	3%
<b>Race/Ethnicity</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
Hispanic	291	44%	286	46%	34	52%	22	55%
Asian	272	41%	245	39%	2	3%	2	5%
Black	60	9%	59	9%	23	35%	13	33%
White	43	6%	35	6%	6	9%	3	8%
<b>Country of Origin</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
Foreign-born	529	79%	510	82%	29	45%	19	48%
U.S.-born	135	20%	115	18%	35	54%	21	53%
Unknown	2	0%			1	2%		

\*Note that numbers may not sum to 100% due to rounding

Table 2. TB Cases by Service Planning Area (SPA), 2013*				(Updated 2/12/14)	
Characteristics	2013 TB Cases		2012 TB Cases		Change in # of TB Cases
	Number	%	Number	%	
All TB Cases	666	100%	625	100%	
<b>TB Cases by Service Planning Area (SPA)</b>	<b>2013</b>		<b>2012</b>		<b>Change in # of TB Cases</b>
SPA 1 (Antelope Valley)	19	3%	17	3%	2
SPA 2 (San Fernando)	119	18%	104	17%	15
SPA 3 (San Gabriel)	162	24%	137	22%	25
SPA 4 (Metro)	117	18%	131	21%	-14
SPA 5 (West)	22	3%	13	2%	9
SPA 6 (South)	91	14%	86	14%	5
SPA 7 (East)	77	12%	85	14%	-8
SPA 8 (South Bay)	57	9%	51	8%	6
<b>*Total</b>	<b>666</b>	<b>100%</b>	<b>625</b>	<b>100%</b>	<b>41</b>

\* Includes two TB cases assigned to Administration/Headquarters in 2013 and one TB case in 2012.  
Provisional data

Table 3. Homeless TB Cases by Service Planning Area (SPA), 2013*				(Updated 2/12/14)	
TB Cases by Service Planning Area (SPAs)	TB Cases		Homeless TB Cases		
	Number	%	Number	%	
SPA 1 (Antelope Valley)	19	3%	0	0%	
SPA2 (San Fernando)	119	18%	8	12%	
SPA 3 (San Gabriel)	162	24%	2	3%	
SPA 4 (Metro)	117	18%	26	40%	
SPA 5 (West)	22	3%	4	6%	
SPA 6 (South)	91	14%	16	25%	
SPA 7 (East)	77	12%	5	8%	
SPA 8 (South Bay)	57	9%	4	6%	
<b>*Total</b>	<b>666</b>	<b>100%</b>	<b>65</b>	<b>100%</b>	

\* Two TB cases assigned to Administration/Headquarters.  
Provisional data

\*Note that numbers may not sum to 100% due to rounding