



HEALTH SERVICES QUICK FACTS

Infectious Disease Surveillance 2014 Latent Tuberculosis Infection (LTBI)

DATA COLLECTION

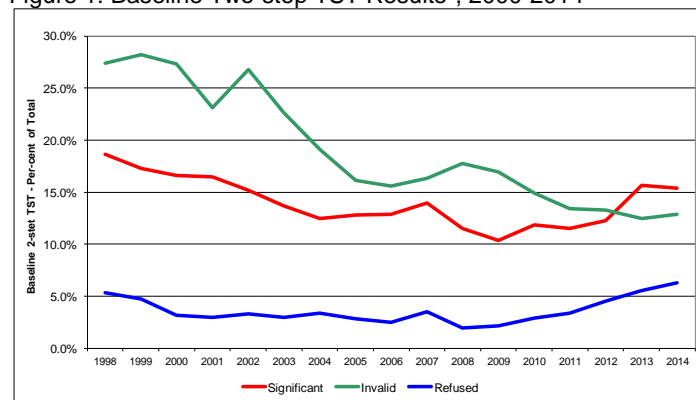
On admission and throughout incarceration, inmates are offered voluntary screening for latent tuberculosis infection (LTBI). Data from these assessments are entered into the enhanced web-enabled Infectious Disease Surveillance System (WebIDSS). Data to year-end 2014 were analyzed. CSC follows the Canadian TB Standards 7th Edition (2013) ¹.

ANALYSIS AND RESULTS

TB Screening upon Admission to CSC

All inmates are offered a baseline two-step tuberculin skin test (TST) on admission to CSC. Participation in screening on admission is high (86% in 2014). The proportion of inmates with a positive TST on admission was 10.4% in 2009 and has trended upwards to 15.4% in 2014 (see Figure 1).

Figure 1: Baseline Two-step TST Results[±], 2000-2014



[±] - other possible results include negative and contraindicated (not shown)

TB Screening while Incarcerated

Inmates with a positive TST were assessed annually for symptoms of active TB and followed up accordingly. Inmates with a negative TST were offered annual repeat TST screening for latent infection and to rule out active disease (see Table 1).

Table 1: Repeat TB Screening, 2007-2014

	2007	2008	2009	2010	2011	2012	2013	2014
Positive TST	2,130	2,034	1,905	2,150	2,206	2,448	2,369	2,192
Negative TST	8,691	8,743	8,663	8,855	9,615	10,541	10,416	10,132

¹ See Canadian TB Standards 2013 at <http://www.respiratoryguidelines.ca/tb-standards-2013>

TST Conversion

A TST conversion is detected when an inmate with a previous negative TST result subsequently receives a positive result. The number and rate has trended downwards from 93 (1.5%) in 2007 to 50 (0.7%) in 2014 (see Table 2).

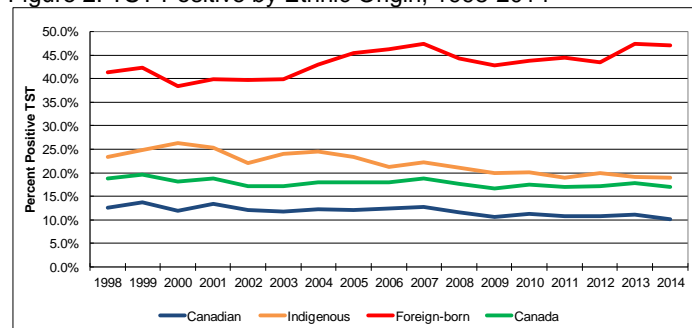
Table 2: TST Conversions and Rate, 2007-2014

	2007	2008	2009	2010	2011	2012	2013	2014
Number of Converters	93	76	65	51	66	71	56	50
Conversion Rate	1.5%	1.2%	1.1%	0.8%	0.9%	0.9%	0.8%	0.7%

Proportion TST Positive

Overall, the proportion of inmates with a positive TST remains fairly stable between 16-20% (see Figure 2). Foreign-born inmates had the highest TST rate in 2014 (47%) followed by inmates of Indigenous ancestry (19%).

Figure 2: TST Positive by Ethnic Origin, 1998-2014



IGRA Testing

Inmates with a positive TST were eligible for testing via interferon-gamma release assay (IGRA). Of 784 inmates who had a follow-up IGRA test, only 188 (24%) had concordant positive results.

SUMMARY

Screening for LTBI in CSC continues to be an important public health function. Foreign-born inmates had the highest proportion of positive TST results. TST conversions continue to be detected which are indicative of ongoing transmission. Inmates with a positive TST and positive blood test results are offered prophylactic treatment for LTBI.