

Calculation of Oregon TB Program Indicators

I. Case Measures

A. *Completion of Therapy within 12 months*

Description: The percent of TB patients who complete TB treatment within 1 year, for which 1 year of treatment is indicated.

Formula:

$$\left[\frac{\text{Number of cases completing treatment in } \leq 366 \text{ days}}{\text{Number of cases alive at diagnosis who started therapy with } \geq 1 \text{ drug}} \right] \times 100$$

Excludes:

- Patients with resistance to rifampin
- Patients who died during treatment
- Patients with meningeal TB, regardless of age
- Children under age* of 15 with disseminated TB (defined as miliary and or positive blood culture)

*Age is calculated based on date reported to local health department

Source: CDC 2006 Surveillance Report Technical Notes

B. *HIV Testing*

Description: The number of cases with HIV test results reported on the RVCT (results should be current to within 1 year of diagnosis). The CDC recommends all TB patients be offered HIV testing, irrespective of age.

Formula:

$$\left[\frac{\text{Number of TB cases with an HIV test result reported}}{\text{Total number of TB cases}} \right] \times 100$$

An HIV test “result” is one of the following:

Positive: Medical documentation of positive HIV test

Negative: Medical documentation of negative HIV test within the past year

Indeterminate: Medical documentation of an indeterminate result on an HIV test in the past year (repeat test if indeterminate)

C. Directly Observed Therapy

Description: Percent of patients receiving directly observed therapy (DOT). DOT is the standard of care in Oregon. DOT helps to prevent treatment failure, relapse, and emergence of drug resistance.

Formula:

$$\left[\frac{\text{Number of TB cases whose therapy was totally directly observed*}}{\text{Number of TB cases who initiated therapy}} \right] \times 100$$

Totally directly observed means:

For patients on a once-weekly medication regimen, DOT was given for all doses while on the once-weekly regimen.

For patients on a twice-weekly medication regimen, DOT was given for all doses while on the twice-weekly regimen.

For patients on a thrice-weekly medication regimen, DOT was given for all doses while on the thrice-weekly regimen.

For patients on a daily medication regimen, DOT was given for five or more doses each week while on the daily regimen.

II. Contact Investigation Measures

Only contacts marked “high” on the State Contact Investigation form are analyzed in the following measurements. Contacts investigations for extrapulmonary TB (respiratory involvement has been ruled out) are not counted by the state.

A. Contact Identification

a. Sputum-smear positive cases

Description: Percent of AFB sputum-smear positive cases with at least one contact identified. Sputum-smear positive cases are the most infectious cases; contacts to such cases are a high priority for screening.

Formula:

$$\left[\frac{\text{Number of sputum-smear positive cases with at least 1 unique contact identified}}{\text{Number of sputum-smear positive cases}} \right] \times 100$$

b. Sputum-smear negative, culture positive respiratory cases

Description: Percent of AFB sputum-smear positive cases with at least one contact identified.

Formula:

$$\left(\frac{\text{Number of sputum-smear negative, culture positive respiratory cases with at least 1 contact identified}}{\text{Number of sputum-smear negative, culture positive respiratory cases}} \right) \times 100$$

B. Evaluation of contacts

a. Sputum-smear positive cases

Description: Percent of contacts to sputum-smear positive cases who are evaluated for TB disease and infection. Sputum-smear positive cases are the most infectious cases; contacts to such cases are a high priority for screening.

Formula:

$$\left(\frac{\text{Number of contacts to sputum-smear positive cases fully evaluated}}{\text{Number of contacts identified to sputum-smear positive cases}} \right) \times 100$$

A contact is “Fully Evaluated” if they have symptom screen and one of the following evaluation statuses:

- 1) Prior TST positive or history of prior treatment of TB disease or infection*
- 2) TST negative after 8 weeks
- 3) New TST positive with CXR

* This is an analysis definition only. Prior positives may require additional testing to adhere to clinical standards.

b. Sputum-smear negative, respiratory culture positive cases

$$\left(\frac{\text{Number of contacts to sputum-smear negative respiratory culture positive cases fully evaluated}}{\text{Number of contacts identified to sputum-smear negative respiratory culture positive cases}} \right) \times 100$$

C. Contacts Starting Treatment

Description: Percent of contacts with newly diagnosed latent TB infection who have started treatment. Risk of progression to TB disease is the highest in the first few years following infection.

Formula:

$$\left[\frac{\text{Number of contacts with newly diagnosed LTBI* starting treatment}}{\text{Number of contacts with newly diagnosed LTBI}} \right] \times 100$$

*Newly diagnosed LTBI means that contacts with prior positive TST and/or prior history of TB treatment for infection or disease are excluded from this calculation. This is an analysis definition only; the LHD might choose to treat or retreat the patient.

D. Contacts Completing Treatment

Description: Percent of contacts with newly diagnosed LTBI who started and completed treatment

$$\left[\frac{\text{Number of contacts with newly diagnosed LTBI* completing treatment}}{\text{Number of contacts with newly diagnosed LTBI starting treatment}} \right] \times 100$$

*Newly diagnosed LTBI means that contacts with prior positive TST and/or prior history of TB treatment for infection or disease are excluded from this calculation.