# Report of Verified Case of Tuberculosis (RVCT) Reporting Practices Survey in California, 2017

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## Background

- Understanding the epidemiology of tuberculosis (TB) relies on valid surveillance data. Surveillance data are collected on the Report of Verified Case of TB (RVCT).
- In California, RVCTs are completed by staff in 61 local health jurisdictions (LHJs).
- The Centers for Disease Control and Prevention (CDC) provides a detailed RVCT instruction manual; California provides regular training and quality assurance.

## Objectives

We surveyed LHJs to:

- Better understand RVCT data
- Identify training needs
- Inform RVCT revision efforts at the CDC

## Methods

- Online survey with 40 questions covering 18 RVCT items
- Questions addressed areas that lacked clarity or were known to cause confusion
- Survey sent to TB Controllers and Program Managers in California for distribution to all staff involved in reporting

**Table 1: Characteristics of Survey Responses**

| | N (%) |
|---|---|
| Total respondents | 62 |
| LHJs represented<br>Low morbidity (0-14 cases)*<br>Medium morbidity (15-54)<br>High morbidity (>=55) | 42/61 (69%)<br>27/40 (68%)<br>8 /11(73%)<br>7/10 (70%) |
| Responses per LHJ (median, range) | 1 [1,4] |
| Response rate per question (range) | 44-62 (71-100%) |
| Role within TB program<br>TB Controller<br>TB Program manager<br>Public health nurse<br>Epidemiologist/analyst<br>Administrative professional | <br>10 (16%)<br>22 (36%)<br>23 (37%)<br>2 (3%)<br>5 (8%) |

*3-year average number of cases, 2014-2016

## Results

**Fig 1: Do you submit an RVCT for verified, but non-countable cases (e.g. started treatment in another country, recurrent case <1 year of treatment stop)? N=48**

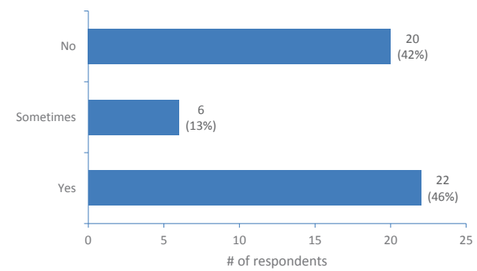
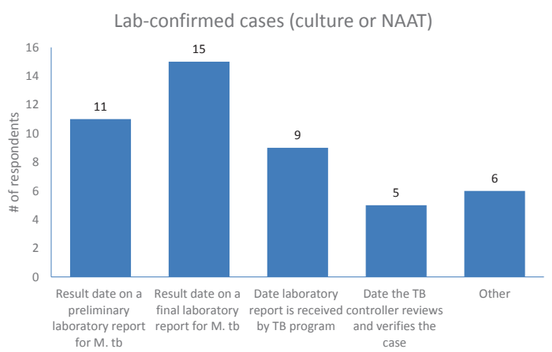



**Fig 2: How do you determine the count date? N=46**



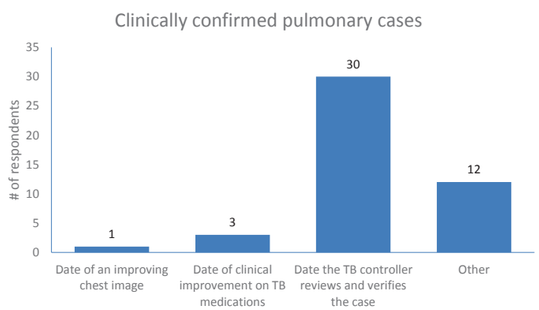
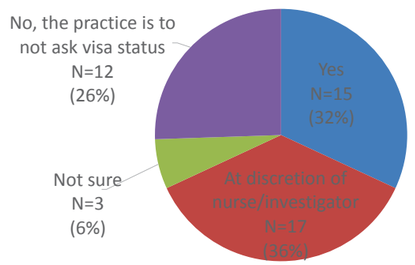




**Fig 3: Are patients born outside the U.S. asked about their visa status? N=47**




*RVCT data, 2012-2016: 20% of non-U.S.-born cases reported with unknown visa status*

**Fig 4: How do you report the date of sputum culture conversion? N=46**

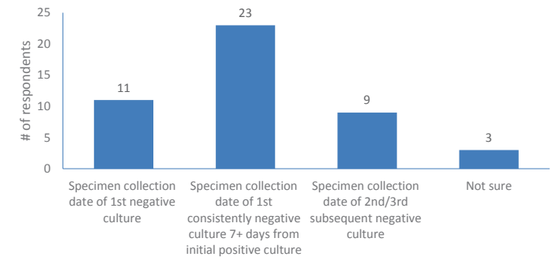



**Table 2: Summary of select survey results†**

| Response | N (%) |
|---|---|
| Report U.S. arrival date as first arrival date | 42/47 (89%) |
| Report any Nucleic Acid Amplification Test (NAAT), regardless of timing or specimen type | 32/46 (70%) |
| Additional risk factors reported in "other" category:<br>Smoking<br>Travel | <br>24/46 (52%)<br>32/46 (70%) |
| Report treatment completion info from CureTB | 32/48 (67%) |
| Report as homeless if:<br>Living in SRO or welfare hotel<br>Couch surfing<br>Residing in homeless shelter | <br>22/47 (47%)<br>41/47 (87%)<br>46/47 (98%) |
| Scenario: Patient in hospice stops treatment 5 days prior to death, report reason therapy stopped as:<br>Died<br>Other | <br>23/48 (48%)<br>24/48 (50%) |
| Sources used to determine deaths related to TB<br>Death certificate<br>California's tool for completing RVCT questions on patients who died | <br>42/48 (88%)<br>13/48 (27%) |

†Additional questions not referenced included: Country of birth, race, linking case numbers, primary reason evaluated, moves, provider type, directly observed therapy

## Conclusion

- Survey responses represented a range of morbidity and roles.
- Reporting practices on complex RVCT fields vary.
- Findings were informative for interpreting RVCT data.
- Results support proposed modifications to the RVCT including systematic capture of risk factors (e.g. smoking, travel) and removal of fields such as visa status.
- Clarification in 2020 RVCT instructions may be needed to ensure uniformity and accuracy in reporting across jurisdictions.
- To accurately assess TB burden on LHJs, incentivizing reporting of non-countable cases may need to be considered.

## Limitations

- Multiple respondents per LHJ make interpretation of local practices difficult.
- Social desirability bias could contribute to inaccurate capture of routine reporting practice.

## Next Steps

- California will continue to provide trainings with emphasis on variables in the survey.
- Results for individual LHJs can be used to inform local data discussions.

**For more information, please contact: Tessa.Mochizuki@cdph.ca.gov**

***Acknowledgments*: California LHJs for completing the survey and for their ongoing commitment to accurate TB reporting**

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