

Tuberculosis in Vermont

Tuberculosis (TB) disease is a notifiable condition in Vermont. The Vermont Department of Health (VDH)'s TB Program works with clinicians to support prompt diagnosis, arrange for medical consultation, ensure that treatment is completed through use of Directly Observed Therapy (DOT), and to provide case management where necessary. For patients with pulmonary disease, VDH staff conducts investigations to identify and evaluate close contacts. Latent tuberculosis infection (LTBI) is not reportable in Vermont, but the TB Program can provide information to clinicians about treatment, priorities for targeted tuberculin skin testing (TST) and interpretation of TST results.

Between 2002 and 2006, 40 cases of TB were reported in Vermont, with a median of eight cases per year and an incidence of 1.3 per 100,000. This compares to a national incidence of 4.6 cases per 100,000 for the United States in 2006. Consistent with national trends, foreign-born persons and racial/ethnic minorities in Vermont are disproportionately affected by TB. Of the 40 cases in this most recent five-year period, 21 (52.5%) were born outside of the United States. While Vermont's population is predominantly white (96%), half of Vermont's TB cases occurred among Asians and Black/African Americans.

Selected Characteristics of VT Cases: 2002-2006 (n=40)

| | Number | % |
|--------------------------------------|--------|-------|
| Previous diagnosis of disease | | |
| Yes | 5 | 12.5% |
| No | 35 | 87.5% |
| Site of disease | | |
| Pulmonary | 21 | 52.5% |
| Extrapulmonary | 16 | 40.0% |
| Both | 3 | 7.5% |
| Age at diagnosis | | |
| 0-19 | 3 | 7.5% |
| 20-64 | 26 | 65.0% |
| 65-89 | 11 | 27.5% |

Multidrug-resistant TB (MDR-TB), defined as a case of TB in a person with a *Mycobacterium tuberculosis* isolate resistant to at least isoniazid and rifampicin, accounted for 1.2% of TB cases nationally in 2004 and 2005. Only one case of MDR-TB has been reported to date in Vermont, occurring in an individual with extrapulmonary disease.

Clinicians in Vermont suspecting TB disease should notify Epidemiology at (800)640-4374 or (802)863-7240. The VDH Laboratory (VDHL) offers gold standard methodologies for rapid and accurate TB testing. In addition to standard procedures used for the staining and culture of mycobacterium, the VDHL combines an automated growth detection system and molecular assays, including nucleic acid amplification for rapid detection of *Mycobacterium tuberculosis* complex rRNA, and species-specific molecular DNA probes for identification of acid-fast bacilli (AFB). The VDHL provides primary drug susceptibility testing for all initial isolates of *M.tuberculosis*. VDHL services enhance the health care of highly infectious patients by identifying and characterizing disease as early as possible. Likewise, patients infected with other non-tuberculous mycobacteria can be identified early, thereby conserving health care resources.

To arrange for testing, request written materials on TB disease or LTBI, or find out more about services of the TB Program, contact Epidemiology.

National Data from: MMWR, March 23, 2007/Vol. 56, No.11

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Chart: Selected Reportable Diseases March - 2007

The *Infectious Disease Bulletin* can be viewed at:

<http://healthvermont.gov/pubs/IDB/index.aspx>

For questions & comments, please contact Mary Spayne at (802)863-7240

