

TB Surveillance and Epidemiology Program Update

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Topics for Today's Talk

- Public health surveillance
- New requirements for sending information to TB Control
- Genotyping
- Case count to date

Purpose of Surveillance

- To assess public health status, to define public health priorities, to evaluate programs, and to stimulate research.
 - Tells us where the problems are, who is affected, and where the programmatic and prevention activities should be directed.

Authority for Disease Surveillance

- Disease reporting is required by the Code of Virginia, hence we have statutory authority to collect surveillance data see §32.1-12, §35-35 and §32.1-49
- In Virginia, Tuberculosis and TB infection in children are reportable as well as any laboratory result or clinical suspicion of Tuberculosis

Data Sources

- Laboratory reports
- EPI-1
- Reports from other states
- Phone calls from ICP, lab, physicians, nursing homes, jails, prisons.

Surveillance Data

- Detect epidemics and outbreaks
- Document distribution and spread of a health event
- Evaluate control & prevention measures

Analysis of Surveillance Data

- Descriptive epidemiology
 - Person, place, time
- Incidence and Prevalence
 - Rates -- crude, specific, standardized
- Trends and seasonality
- Geographic clustering (maps)

Case Reporting to TB Control

- All new reports of TB and TB suspects should be reported to your surveillance and epidemiology field staff (Bill White and Tim Epps)
- Field staff collect the required RVCT data from local health department records

Contact Investigation Reporting

- CDC requires submission of aggregate data for program evaluation also known as the ARPE
- These data are compiled from individual contact investigations as recorded on the 502

What's New in 2010

- Cooperative agreement with CDC is oriented toward data collection, data quality, and evaluation of data
- New procedures and data requirements from TB Control for contact investigations and case closure
- Implementation of TBGIMS

RVCT (Report of Verified Case of Tuberculosis)

- Substantial revision to CDC RVCT form in 2009 (first time in a decade)
- Response to change in technologies: rapid detection tests, IGRA's
- Additional risk factors: diabetes, TNF-alpha inhibitors
- Timeliness measures: report dates, etc.

New Reporting Requirements for Contact Investigation (502)

- **First report:** submit 502 or local spread sheet to State TB Control within **4 weeks**.
- **Second report:** submit completed contact investigation 502 to State TB Control (excluding completed dates for contacts on treatment for LTBI) within **4 months**.
- **Final Report:** submit updated 502 to State TB control after the contacts have completed treatment for LTBI (INH 9 months) or (Rifampin 4 months)

New Reporting Requirements for TB Case Closure

- Upon completion of treatment and final chest xray notify TB Control by fax
- Fairfax will be using the CDC case closure form
- Other districts may submit TB Control form to be posted on website

National TB Genotyping Project

- Isolates are submitted to one of two genotyping labs
- A PCR number is assigned to the result that can be compared across jurisdictions
- Web based data collection system implemented in March 2010
 - Can compare aggregate data for a PCR type
 - Approximately 63,000 isolates have been genotyped

The Promise of TB Genotyping

- Identify ongoing chain of transmission
 - identify high risk groups or areas where transmission is ongoing
- Distinguish reactivation from exogenous transmission
- Identify cross contamination in the laboratory
- Confirm or rule out suspected epi links between cases

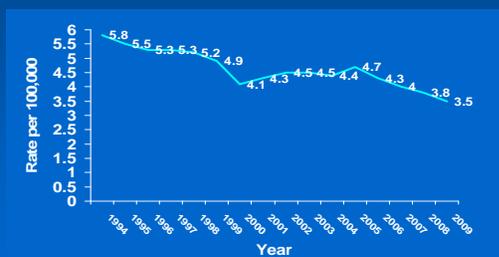
Genotype Clusters

- TB genotyping is a powerful tool for TB control and can help identify ongoing transmission
- Genotyping suggests avenues of investigation that traditional contact investigations may miss
- Genotyping results are not clinical results and should not be put in patient's charts

2010 Preliminary Data Highlights

- 187 cases reported to date
- 64% foreign born
- 9 pediatric cases ages 5-13
 - 5 of these cases are associated with an outbreak

TB Case Rates in Virginia: 1994-2009



So How is this Relevant to TB Control?

- TB surveillance data justify the funding for TB Control
- Surveillance and epidemiology are the backbone of prevention!
- You need to know what, who, when and where to control the disease and to know if your intervention worked

Final Thoughts

- Surveillance and epidemiology tell us who, what, when and where.
- The flow of information from the District to the State and back to the District is a collaboration.
- The surveillance and epidemiology program at TB Control is always available to you for consultation and assistance.

Acknowledgements

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