



TB TID-BITS

All links in this electronic newsletter are live.

Left click on the links to access the websites.

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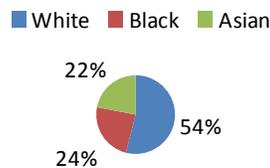
The 2011 Annual Tuberculosis Report is now available

http://www.in.gov/isdh/files/FINAL2011_Annual_TB_Report05_11_12.pdf

Highlights include:

- 100 TB cases were reported in Indiana in 2011; the incidence rate of TB in Indiana was 1.5 per 100,000. Of those cases, 0.8 per 100,000 were US-born, while 15.1 per 100,000 were foreign-born. The incidence rate for Indiana's White population was 1.0 per 100,000, 4.1 per 100,000 for Indiana's Black population and 21.5 per 100,000 for Indiana's Asian population.

Indiana Tuberculosis Cases by Race 2011

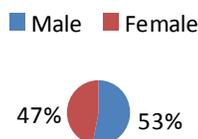


Older adults (25 – 64 years) comprised 58 percent of Hoosier TB cases.

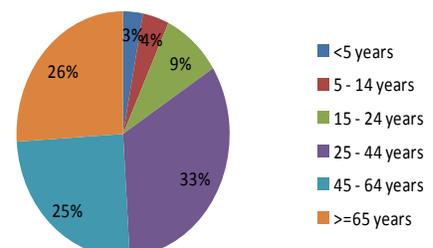
- Older adults (25 – 64 years) comprised 58 percent of Hoosier TB cases.

- Drug resistance continues to increase, with 6 percent of Indiana cases resistant to Isoniazid, 2 percent resistant to both Isoniazid and Rifampin and 9 percent were resistant to other drugs used to treat TB.
- Fifty-three percent of TB cases were male.
- The percentage of cases infected with both HIV and TB continues to rise, with 6 percent of 2011 cases exhibiting HIV/TB co-morbidity.

Indiana Tuberculosis Cases by Sex 2011



Indiana Tuberculosis Cases by Age 2011



From the ISDH TB Lab—Transit Time: FAQs

Q: What is transit time?

A: Transit time is the length of time it takes for the specimen to arrive at the laboratory, specifically, the time from sample collection to sample receipt in the laboratory.

Q: Why are transit times so important?

A: Transit times are important: the earlier the sample arrives at the lab, the more rapidly it can be tested. This is important for a number of reasons:

- If the sample is from a previously undiagnosed TB patient, the earlier it is tested and results are ready, the sooner the patient may be placed in isolation and started on therapy. Placing the patient in isolation reduces the chances of TB spreading to a new patient.
- If the sample is from a previously smear positive patient and the results of the sample are negative, the patient may be taken out of isolation sooner.
- When a sample arrives more quickly at the lab, the sample is more likely to arrive in a good, testable condition. Extended times at room temperature can lead to the overgrowth of contaminating bacteria, which may mask the existence of MTBC.
- Extended transit times for samples with low concentrations of MTBC can lead to the degradation of the bacterial DNA, leading to possible false negative results.

Q: What is the ISDH goal for transit times?

A: The National Objective set by the CDC is for all TB labs to receive TB samples within 24 hours of collection. The goal set by the ISDH Lab is to receive 60 percent of samples within 24 hours. In 2011, the ISDH lab received only 47 percent of TB specimens within 24 hours, so an improvement is needed.

Q: How can I improve my transit times?

A: **DO NOT “BATCH”** your specimens! Use the UPS bags and ARS labels provided by ISDH to ship your samples to ISDH Lab immediately after collection for next day delivery. Also, avoid shipping specimens on Fridays or on the day before a state holiday.

2012 TB Case Count
as of 5/31/2012
34 TB Cases

2-HIV Test Not Offered
10-HIV Status Unknown/Missing

ISDH 2012 TB Control
Goal for Known
HIV Status
70% of TB patients
will know
their HIV status

Goal Status as of 5/31/2012
59% of TB patients
knew their
HIV status

ISDH Lab Goal for TB Specimen
Transit Time
75% of specimens will be received
within two days of collection

Goal Status as of 5/31/2012
77% received within two days of
collection

**LHDs that met
ISDH Lab Goal for
TB Specimen Transit Time**
100%:
Adams, Hancock, Henry, Huntington,
Johnson, Lake, Madison, Vigo and
Warrick

75% or above:
Cass (78%), Dearborn (80%), Grant
(89%), Hamilton (80%), Harrison (83%),
Hendricks (92%), Jackson (83%),
MCPHD-Foreign Born (88%),
MCPHD-General (98%), St. Joseph
(90%) & Vanderburgh (83%)

Expanded Contact Investigations

Since the beginning of 2012, there have been several expanded TB contact investigations, which have included thousands of TST placements and readings. (See page 3 for the story of the Howard County expanded investigation.) In Allen County, there have been two expanded investigations, one at a school and one at a workplace. In Vigo County a school was the site for an expanded investigation as well. Hendricks County had to expand an investigation to a learning center outside of the county. In each of these situations, more than 100 people were potentially exposed to TB, and the ISDH TB Nurse Consultants (Regional Nurses) actively participated in educating contacts and placing and reading TB skin tests.

Although it is the primary responsibility of the local health departments to manage TB cases and contact investigations, the TB Regional Nurses are available to provide technical assistance as well as “down-in-the-trenches” assistance. If you need support, please don’t hesitate to ask for it.

TB Spotlight

Organizing a Large Contact Investigation: Collaborating with Community Partners: Howard County

Howard County recently conducted a large contact investigation. The TB case worked in a nail salon and had multiple opportunities to share air space with her clients, particularly the routine every-two-week schedule for nails. Unfortunately, the salon did not keep contact information or sign in sheets for their clients. This resulted in a community partner media release that identified the salon as a source of possible exposure. The response from the public was overwhelming, with 536 first testings and 218 second testings.

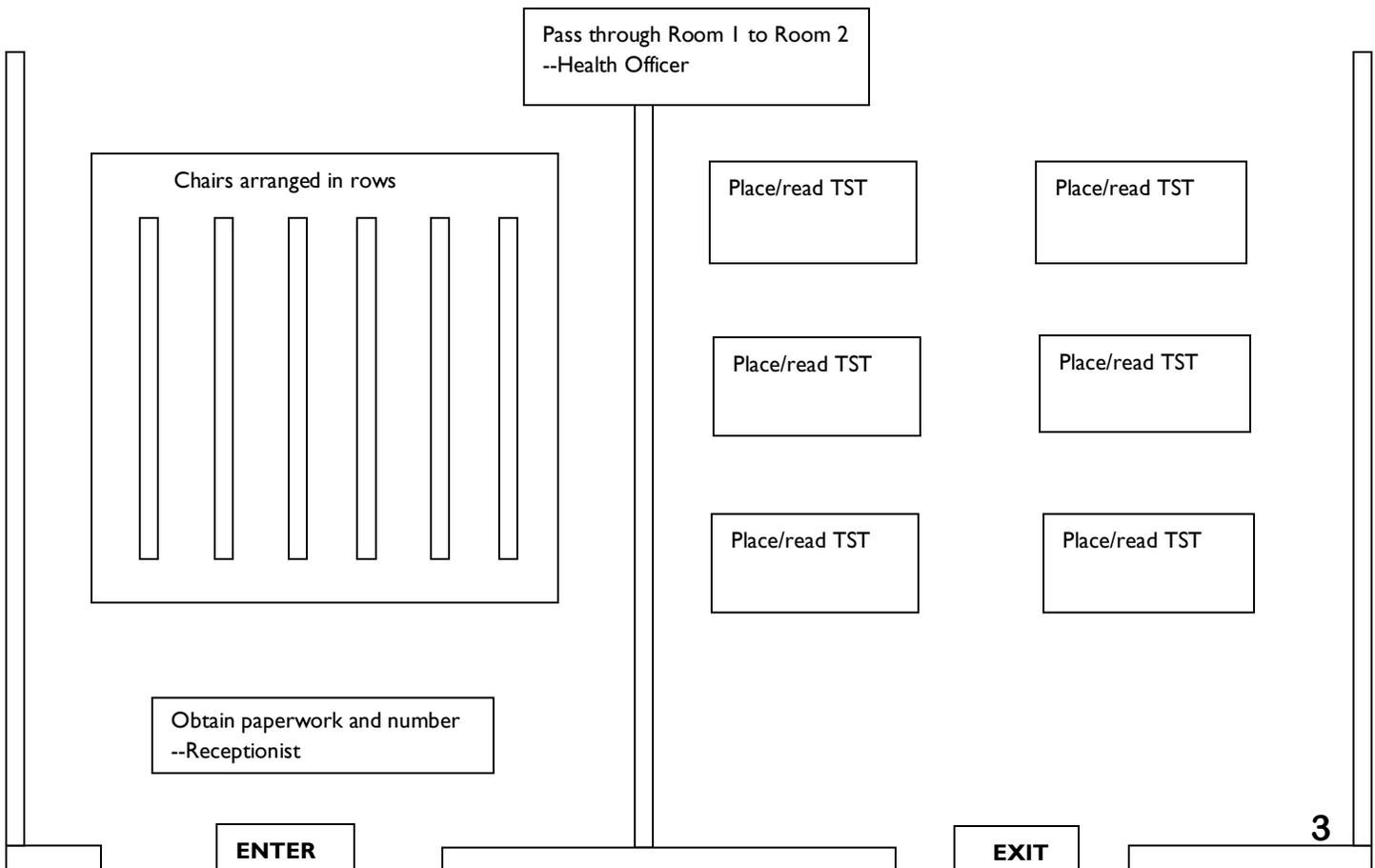
The initial plan to carry out the testing was scheduled in conjunction with a community partner, Howard Regional Health System. Their Foundation had recently been given a generous gift which they utilized by purchasing and remodeling a motor home for outreach clinics and community service. While easily recognized by the community, it quickly became evident the motor home was too small.

The single entrance and exit caused workflow problems for workers and the public. The steps to the mobile health unit were steep and many people needed assistance in negotiating the stairs, especially in wet weather. The Howard County Health Officer became the doorman, directing traffic flow at the door. The Howard County Health Officer guided people at the door while the county emergency preparedness coordinator made arrangements to transport supplies and directed traffic around the parking lot. However, improvements were needed in light of the large number of individuals served.

Within 48 hours, utilizing contacts in the circle of community partners, the EPC secured a large building owned by IvyTech. Partial use of the building for classes still left open adjoining conference rooms and floor space. Four sets of doors and a greeter directed individuals to the first station to fill out a consent for the TB skin test (TST). Upon completing the paperwork, individuals were seated until called to one of six privately draped stations where the TST's were placed. At that time, written and verbal reminders for date, time, and place to read the TST's were given. After receiving the TST, the individual exited the room through a door different from the entrance (see below).

Using the same facility for TST reads, the greeter directed people to the first station to pick up their paperwork. People were also given a numbered ticket. As a certified reader in the next room became available, the health officer summoned individuals by number to the reading room. Six stations were set up with privacy drapes to read the TSTs. All negative TSTs then exited through the second (reading) room. Any positives had the opportunity to speak with the nursing staff regarding the differences between LTBI and active TB disease, signs and symptoms, and recommended treatment. A brief medical history was obtained and chest x-ray requisitions were given when appropriate.

Significant changes to the plan, based on a larger area to work, greatly enhanced the flow of the investigation, cut down on the time needed to place and read TSTs, and decreased the confusion seen with the first-day placements given in the mobile health unit.



Updates from the ISDH TB Control Program

Items of Interest from the National TB Conference

1. TB programs will be affected regardless of how the Supreme Court rules on the Affordable Care Act. Changes are coming at the national level that will impact the state and local levels soon. It is predicted that there will be a push to have Federally Qualified Health Care Centers and Community Health Care centers handle more of the treatment of LTBI and TB disease. It is not known if support will remain for the public health aspect of TB control and prevention—case management, contact investigations, directly observed therapy and treatment completion—as funds are realigned. Some health departments are already billing third party payers for services provided to TB patients—office visits, home visits, DOT, laboratory, chest x-rays, medications, etc. In some states, individuals with reduced income are eligible for Medicaid if they have a diagnosis of TB disease. This is not the case in Indiana, but we need to be thinking about how we can sustain our TB programs.
2. Patients receiving the new 12-week treatment regimen for LTBI with INH and Rifapentine (known as 3HP) need to be monitored carefully. In addition to concerns about liver toxicity associated with INH, there are also flu-like side effects and reports of hypersensitivity resulting in thrombocytopenia and hypotension. More studies are being done, but there are no changes in the guidelines at this time.
3. The National TB Nurse Coalition which is part of the National TB Controllers Association has recently published Tuberculosis Nursing: A Comprehensive Guide To Patient Care which is available on their website to members, or can be purchased by non-members. For more information see http://tbcontrollers.org/?page_id=257.
4. Many of the presentations from the National TB Conference and the National TB Nurse Coalition pre-session are available at <https://www.signup4.net/Public/ap.aspx?EID=20121161E>

Electronic TB Forms

The electronic application used by the ISDH TB Control Program is called TB-SWIMSS (State Wide Investigation, Monitoring and Surveillance System). It has been used at ISDH since 2009, and the next phase of rolling the system out to the local health departments (LHDs) has begun. Beta testing by several counties was completed in May 2012, and on June 18, 2012, Hendricks, Hamilton, Bartholomew, Johnson and Elkhart Counties were trained in entering data into the following electronic forms: Report of TB, Report of LTBI, Case Completion (new form) and Contact Investigation. In addition, LHDs can use the database to enter patient notes and view lab results. The training was completed through video conferencing with Laura Gano, TB Epidemiologist and Regina Love, ISDH IT Project Manager, facilitating. This first wave of counties began entering live data on June 28, 2012. After feedback sessions with the original five counties, it is expected that TB-SWIMSS will be rolled out to Allen, St. Joseph, Lake, Tippecanoe and Jackson Counties later in the summer.

If your local health department is interested in participating in the third wave, please contact Regina Love at rlove@isdh.in.gov

GENType: New genotyping terminology to integrate 24-locus MIRU-VNTR

TB genotyping is the process of determining differences in genetic make-up of TB strains by examining the DNA sequence. The ISDH TB Lab is the only lab in the state that sends TB for genotyping; therefore, all other labs in the state must send TB isolates to ISDH for genotyping to occur. For more information on genotyping, visit <http://www.cdc.gov/tb/publications/factsheets/statistics/genotyping.htm> (Warning: The next two paragraphs are full of lab lingo.)

Since the start of the National TB Genotyping Service (NTGS) in 2004, a genotype has been defined as a unique combination of spoligotype and 12-locus MIRU-VNTR results. Each unique combination of results is assigned a “PCRTyping”. PCRTyping is designated as “PCR” followed by five digits, which are assigned sequentially to every genotype identified in the U.S. (e.g., the spoligotype result 000000000003771 and 12-locus MIRU-VNTR result 223325173533 was the second genotype seen in the U.S. and was assigned “PCR00002”).

In April 2009, MIRU-VNTR analysis was expanded from 12 loci to 24 loci. The complete set of 24 loci is referred to as 24-locus MIRU-VNTR. The additional 12 loci (reported in TB GIMS as “MIRU2”) increase our ability to distinguish between strains of *M. tuberculosis* and identify chains of transmission. In order to fully integrate the additional 12 loci into routine use, a new national naming system, GENType, has been developed.

2012 TB Regional Meetings—September & October

- Your four ISDH TB Nurse Consultants, “Regional Nurses,” are hard at work planning the 2012 TB Regional Meetings. Joy Hardacre, Barbara Weber-White, Dawn Sipes and Helen Townsend are meeting monthly to plan the most beneficial meeting ever! This year there will be two meetings:

LaGrange County—Tues. and Wed. September 25-26

Brown County—Tues. and Wed. October 2-3

The plan is for a full day followed by a half-day: specific venues and meeting times to be announced.

- The agenda is slowly coming together, with topics ranging from contact investigations to new strategies for DOT, window prophylaxis, working with congregate settings, communicating with doctors, being patient advocates, preventing burnout, working with health directives, understanding ISDH TB Control expectations, etc.
- We are taking a new approach this year. We want you to teach each other! For example, who better to talk about challenging contact investigations than a public health nurse who just dealt with a challenging contact investigation? We’re planning on lots of time for interaction, case studies and conversation.
- Also, after the session on burnout, we’re planning to offer a yoga class—physical stretching and mental focus for some “real world practice.” One of the Regional Nurses is a certified yoga instructor, and she will be available to teach a class on the evening of the first day. No need to pre-register, and don’t worry about physical limitations. Every posture can be modified.
- Lastly, are any of you interested in a TST refresher course—for those of you whose TST certification is about to expire or has expired recently (within the last couple of months)? We can offer this course on the afternoon of the second day. **Note: We will only be teaching the refresher course, so this will not be appropriate for someone who is not currently certified to give and read TB skin tests.** If you are interested, please complete the section below and print and fax this page to 317-233-7747 or print, scan and email this page to htownsend@isdh.in.gov with the subject line *TST Refresher Course*. There will be a \$6.00 fee for the class. That is how much it costs for us to get your card from the American Lung Association. We will only offer the class if we get enough participants, and we need to know in advance because of the slides, tests, answer sheets, etc that will have to be copied. There won’t be time to do all of that once the meetings begin.

Yes, I want to participate in a TST Refresher Course

Yes, I want to participate in a TST Refresher Course at the 2012 TB Regional Meeting.

Name _____

County _____

Meeting Place LaGrange County

(Please Check) Brown County

Please reply by September 7, 2012.

