

Dear Colleague:

As the year ended, we in CDC's Division of Tuberculosis Elimination (DTBE) remained busy with meetings and events of importance to TB control.

The 2008 TB surveillance annual report, *Reported Tuberculosis in the United States, 2008*, was posted online on September 24, 2009. The full report and slide set are available at <http://www.cdc.gov/tb/statistics/reports/2008/default.htm>. In addition, an updated Trends fact sheet is available on the DTBE website at <http://www.cdc.gov/tb/publications/factsheets/statistics/TBTrends.htm>.

The Advisory Council for the Elimination of TB met in Atlanta on October 27 and 28. I will summarize a few of the presentations. Dr. Hazel Dean, Deputy Director of the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP), reported on the proposed reorganization of CDC, which is expected to be implemented by January 2010. One result is that NCHHSTP's Global AIDS Program will be reorganized into a new Center for Global Health.

Rachel Stricof, representing the Healthcare Infection Control Practices Advisory Committee (HICPAC), summarized infection control guidance regarding 2009 influenza A (H1N1). CDC guidance emphasizes a hierarchy of controls, with vaccination as the most effective prevention strategy. Where personal protective equipment is needed, N95 respirators should be used. Facilities where N95 respirators are in short supply should prioritize respirator use for highest-risk situations such as aerosol-generating procedures and infections requiring airborne precautions (such as *M. tuberculosis*).

We received an update from Dr. Dolly Katz on the revised guidelines for preventing TB in foreign-born persons in the United States. Major changes from the previous guidelines include the recommendation to provide latent TB infection (LTBI) testing at least once to every foreign-born person from a high-risk country. The guidelines will also state that interferon gamma release assays (IGRAs) are preferable to tuberculin skin tests in these populations. The document will include specific guidance for follow-up and evaluation of immigrants with class B notifications.

We heard an interesting report on health care reform from Mr. Michael Craig and Mr. Donald Shriber of the CDC Washington office. Indicating that some kind of health reform bill is expected to pass this year, they described how CDC might be affected by health reform. It is anticipated that CDC might gain new, higher-priority authority to address health issues. Also, public health institutions could be strengthened within and across government, and reforms could give more individuals access to preventive services such as vaccines and screenings.

Drs. Andrew Vernon and Elsa Villarino described the results of the recompetition of the TB Trials Consortium (TBTC), a collaborative team of investigators conducting clinical research to find new TB drugs and drug regimens. From its origin in 1993 with strong CDC oversight and only North American sites, it has matured into a truly collaborative and global entity with 10 U.S. sites and 10 international sites. The TBTC has conducted nine major studies enrolling over 10,000 patients. This is truly a success story, and we anticipate additional important work from this group.

I provided an update on the Federal TB Task Force (TBTF), on which I serve as co-chair with Dr. Christine Sizemore (NIH). The TBTF met in Bethesda in August 2009 to continue progress on the *Plan to Combat Extensively Drug-Resistant Tuberculosis*; this was published in February 2009 (MMWR 2009;58 [RR-3]) and is available online at www.cdc.gov/mmwr/preview/mmwrhtml/rr5803a1.htm. The TBTF also identified a few critical unmet needs on which we could collaborate, and subsequently chose four topics and established working groups. The aim is to develop inter-agency demonstration projects that can be implemented within existing resources. These topics include advancing the development of molecular diagnostic tests for TB and drug resistance, with special attention to pediatric patients; implementing diagnosis and treatment with quality-assured drugs for MDR/XDR TB, and again, special needs of pediatric patients will be addressed; preventing TB transmission through infection control, with special attention to settings in which HIV-coinfected persons receive care; and developing TB clinical trial data standards, expanding a process already initiated by the Food and Drug Administration (FDA). All topics will include approaches for training, education, and capacity-building, and optimally will span the continuum of early development to implementation. We will provide updates on our progress with these activities.

We next heard several presentations on TB control in the U.S.-affiliated Pacific Islands (API), with an overview provided by Mr. Andy Heetderks. Populations in this region deal with many health disparities, compounded by serious challenges related to geography, politics, and infrastructure. In 2008, the API's TB case rate was 86.6, compared to 4.2 for the U.S. overall. To address the region's TB-related problems, DTBE has been working with other organizations serving the area such as the Secretariat of the Pacific Community (SPC), the World Health Organization (WHO), the Pacific Island Health Officers Association, the U.S. Dept. of the Interior, and others. These collaborations have resulted in much-needed improvements such as standardized patient registries; development of a flexible new surveillance tool, TBanywhere.net; greatly improved laboratory and medical consultation services; and the development of regional training. The region will continue to experience challenges, but with the recent changes, is now in a better position to deal with them.

After additional discussion and business, the meeting was adjourned. The next ACET meeting will be held March 2–3, 2010.

DTBE staff and colleagues conducted the annual training for new TB program managers, the TB Program Managers Course, November 2–6, 2009. This is a comprehensive course that covers a broad range of areas that program managers will deal with. Please see the article about the course in this issue.

The 40th Union World Conference on Lung Health, which is organized by the International Union Against Tuberculosis and Lung Disease, was held in Cancún, Mexico, December 3–7, 2009. The theme of this year's conference was *Poverty and lung health*. This theme was highly relevant for any participant working to reduce the burden of HIV/AIDS, tuberculosis, asthma, pneumonia, tobacco-related and other lung diseases, and the consequences of air pollution. The important medical, social, and economic consequences of lung health in high-burden countries were also discussed.

Kenneth G. Castro, MD

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HIGHLIGHTS FROM STATE AND LOCAL PROGRAMS

Addressing the Challenges of Missed Opportunities for Finding TB in Arkansas, 2008

The following abstract was presented by Dr. Leonard Mukasa at the first TB PEN conference in July 2009.

Background

In December 2005, in response to a DTBE request for program evaluation focus areas, the Arkansas Department of Health (ADH) TB control program submitted a proposal to focus on treatment of latent tuberculosis infection (LTBI). In the initial study covering the years 2004–2007, ADH reported that 37% of its cases were considered missed opportunities. A missed opportunity was defined as a case of TB in a person

- With a previous documented diagnosis of LTBI,
- In a population group included in an established targeted testing program,
- Under age 5, or
- Whose TB was not reported until after death.

We have now adopted the strategy of evaluating each TB case as a missed opportunity. The value and importance of this approach has been reinforced to TB control staff through cohort reviews, workshops, and tailored trainings for TB nurses in their local communities. The purpose of this study is to assess any change in the profile of TB missed opportunities in 2008 as compared to our previous report, and to estimate the impact of the missed opportunities on the incidence of TB in Arkansas.

Surveillance and genotyping data for 2004–2008 were obtained from the TB Registry. Study variables included demographics and clinical parameters. We reviewed each clinical record to identify information pertaining to missed opportunities. When data were not available in the clinical record, we sought clarification from the counties. A missed opportunity group was constructed using a dummy variable 1, 0 on study subjects. Analysis using frequencies and cross-tabulation was done in SAS.

Missed opportunities were associated with 42.2% of the cases in 2008 compared to 37% in 2007. In the missed opportunity group, there was an increase in the proportion contributed by patients having had prior known LTBI, by healthcare workers, or by nursing home patients and employees, whereas there was a decrease in the cases contributed by international students. Of the 21 cases with prior known LTBI, 13 (62%) had been detected at least 5 years before TB diagnosis. In the non–missed opportunity group, all the factors assessed in the 2004–2007 study (including having diabetes or cancer) remained at similar levels in 2008. More importantly, there were new findings among the non–missed opportunity group: 12 of 16 (75%) had a history of exposure to TB in the past but were not given a tuberculin skin test (TST) at the time; and the remaining 4 of 16 (25%) had a history of TB exposure but had a negative TST. Clustering by genotype was at 48% for years 2004–2008.

Conclusions

Although TB incidence is on the decline, the potential of using current strategies and tools

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TB Notes Editor
 CDC/NCHHSTP/DTBE, Mailstop E10
 1600 Clifton Road, NE
 Atlanta, GA 30333
 Fax: (404) 639-8960

DIRECTOR, DTBE
 Kenneth G. Castro, MD

EDITORIAL REVIEW BOARD
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to advance TB elimination in Arkansas remains as important as ever, but the tools and strategies are underutilized. Treatment of known LTBI cases will lead to a substantial reduction in TB morbidity. The exposed group, identified through family history of TB or documented TST, highlights three areas in need of improvement: (a) failure of the TST to detect LTBI with greater accuracy, (b) failure of the TB program workers to perform follow-up TSTs, and (c) the need of the TB program workers to evaluate and treat a sub-population who have a history of LTBI who can be reached and reevaluated with an intent to treat them when shorter and cost-effective regimens for treating LTBI become available. Tuberculosis screening in diabetics and cancer patients born before 1950 must be strengthened. Also, an effective intervention policy to screen and successfully treat foreign-born persons who have LTBI, but are not international students, is urgently needed.

—Reported by Leonard Mukasa MD, Joe Bates MD, Rosalind Abernathy MD, James Phillips MD, Elizabeth Karpoff BSN RNP, Iram Bakhtawar, MD
 Arkansas Department of Health

Increasing HIV Testing in the Hawaii TB Control Program

Background

Increasing the proportion of tuberculosis (TB) patients aged 25–44 who have been tested for human immunodeficiency virus (HIV) is a performance measure of the CDC Cooperative Agreement for TB Elimination and Laboratories. Historically, Hawaii had not met the national TB program objective of 75% for this performance measure. In 2000 and 2002, the Hawaii TB Control Program collaborated with the Hawaii Sexually Transmitted Disease (STD)/AIDS Prevention Branch, and developed a plan to increase HIV testing of TB cases and suspects. However, it wasn't until 2005 that these plans were implemented and policies and procedures developed. Since 2005, the Hawaii TB Control Program has made progress towards meeting the national TB program objective, and finally surpassed 75% in 2007. This report will review the factors that contributed to this achievement and identify programmatic improvements needed to continue success.

Activities

In February 2006, the Hawaii TB Control Program conducted its first TB cohort review, which is a systematic review of patients with TB disease and their contacts. During the case presentations, a high number of patients had unknown HIV status despite the development of policies and procedures intended to improve this outcome. Because cohort review is a retrospective review of patients who have completed or are close to completing TB treatment, this process was ineffective in ensuring that HIV testing was performed. Missed opportunities needed to be identified and corrected earlier in the course of a patient's TB treatment. Therefore, starting October 2006, the program conducted monthly TB case

conferences in lieu of quarterly cohort reviews.

At case conferences, summaries of TB cases and suspects were presented at 1 and 3 month intervals after the start of TB treatment. HIV testing outcomes were reported; if testing was not completed, the Nurse Case Manager reported when testing would be offered or completed. Additionally, line-list reports of cases with unknown HIV status were printed and distributed to Chest Clinic Physicians and Nurse Case Managers on a quarterly basis to call attention to cases that needed follow-up. Both processes motivated staff to become accountable for offering HIV testing. Despite the development of policies and procedures in 2005 to conduct HIV testing of TB patients, it wasn't until outcomes were routinely measured during case conference and staff were provided reports of delinquent HIV results that the Hawaii TB Control Program surpassed the national TB program objective for HIV testing of TB cases.

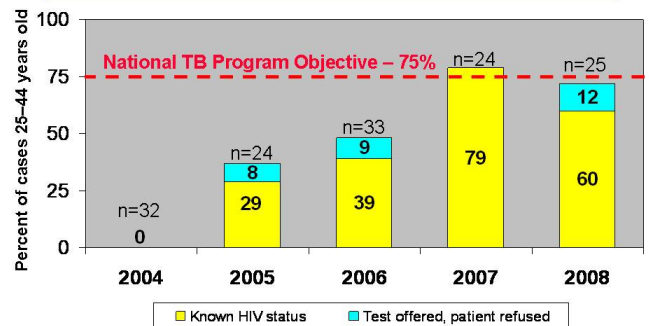
Case conference also provided a forum for discussing challenges to obtaining HIV tests. Staff needed clarification on the ages of TB patients who needed to be offered HIV testing. At the time of these discussions, the national TB program objective only measured HIV outcomes of TB in persons aged 25–44 years. However, during case conference, HIV results for cases outside this age group were requested, causing confusion among staff. Interim policies were developed as a result of this discussion, and HIV testing was offered to all cases 18 years of age or older. Additionally, HIV testing was included in the baseline laboratory tests ordered when all patients started on treatment for active TB disease. Making this a routine test ensured that a patient's HIV status was known shortly after the initial clinic visit. Prior to that, testing was only offered after a patient was diagnosed with

active TB disease (i.e., after culture confirmation was received or after clinical diagnosis was made). This meant TB suspects were on treatment for months without being tested for HIV. The delay conflicted with the message to patients and staff about the importance of knowing a patient's HIV status because of the impact HIV infection can have on the effectiveness of TB treatment and the potential for delayed diagnosis and management of HIV infection.

Results. After the interim policies and procedures were in place, statewide data on the HIV status of TB cases were analyzed. During 2004–2006, the Hawaii TB Control Program showed progress toward meeting the 75% national TB program objective for known HIV status of TB cases, and finally surpassed the objective in 2007; however, the program fell short of meeting the objective in 2008 (Attachment A). To identify

Attachment A.

HIV Status of TB Cases 25–44 Years Old — Hawaii, 2004–2008



As of Nov. 17, 2009

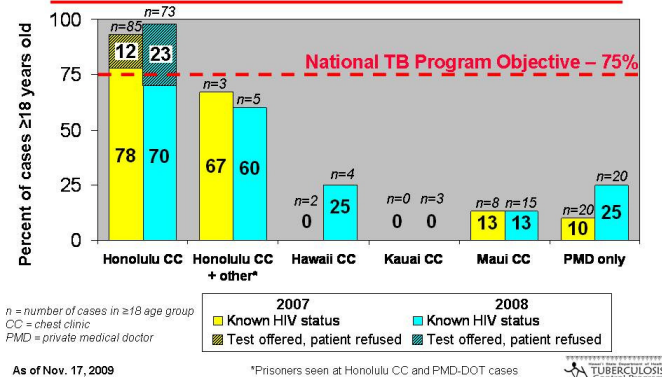
n = number of cases in 25–44 age group



areas that needed improvement and identify missed opportunities, we analyzed 2007 and 2008 data on the HIV status of TB in persons 18 years of age and older (Attachment B). In 2007 and 2008, the Honolulu Chest Clinic provided TB treatment and case management to the majority of the TB patients at least 18 years of age in the state of Hawaii, 72.0% (85/118) and 60.8% (73/120), respectively. Because all of the activities and changes described above were

Attachment B.

HIV Status of TB Cases ≥18 Years Old — Hawaii, 2007–2008



implemented at the Honolulu Chest Clinic, it had the highest percentage of TB patients with known HIV status: 77.6% (66/85) and 69.9% (51/73), respectively. The percentage of known HIV status was lowest among patients who received TB treatment at the Chest Clinics on the Neighbor Islands, and patients who received all TB treatment through their private medical doctor (PMD). The low rates on the Neighbor Islands were attributed to a lack of standardized policies, procedures, training, and accountability for HIV testing of TB patients. The low rates among PMD cases were attributed to a lack of oversight and case management of PMD cases by the Hawaii TB Control Program.

Future Plans

The interim policies and procedures were revised and were scheduled to be finalized and officially approved before the end of 2009. They require HIV testing of TB patients of all ages in accordance with the new national TB program objective and include principles of opt-out screening as outlined in the 2006 CDC *MMWR*, "Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings." We expect to see a decrease in the number of TB patients who refuse HIV testing once opt-out procedures are implemented. Before the end of the first quarter of 2010, statewide training will be

conducted to ensure that there is a standardized approach for conducting HIV testing of TB cases. To increase HIV testing among PMD cases, the TB Nurse Consultant of the Hawaii TB Control Program plans to meet in person with the physicians in the private sector who treat persons with TB, stress the importance of HIV testing, discuss the new national TB program objective, and identify potential barriers to accomplishing this goal.

Lessons learned:

- Holding staff accountable for HIV testing outcomes during case conference and through the distribution of line listing reports proved to be an effective method of improving rates for this performance measure.
- Discussing with staff the national TB program objective for HIV testing and the importance of knowing the HIV status of TB patients at the beginning of this initiative helped gain the buy-in needed to implement change.
- Initiating open dialogue with staff provided them the opportunity to recommend revisions to policies and procedures that facilitated progress toward our goal of increasing HIV testing of TB patients.
- Collaborating with the Hawaii STD/AIDS Prevention Branch was critical to ensure that the revised policies and procedures were both practical and legal.
- Analyzing statewide HIV testing data allowed us to identify the areas where improvement was needed.

—Reported by Derrick D. Felix
Div of TB Elimination
PHA, Hawaii TB Control Program

TB EDUCATION AND TRAINING NETWORK UPDATES

TB ETN Member Highlight

Ayesha Bashir, MD, MPH, is a Special Project Epidemiologist and Deputy TB Control Officer for the Arizona Department of Health Services (ADHS). She received her MD degree from Fatima Jinnah Medical School in Pakistan and her MPH degree from Tulane School of Public Health in Louisiana.

Ayesha's job responsibilities are two-fold. She provides epidemiology and surveillance support to ADHS' TB special project areas and also serves as the Deputy TB Control Officer for Arizona. Her responsibilities include working to control TB in populations such as correctional facility inmates and staff, homeless persons, Native Americans, and persons along the U.S./Mexico border. As the correctional facility liaison, Ayesha is responsible for maintaining an effective interface between public health agencies and the various entities involved with correctional inmates. She provides guidance and technical assistance on public health issues that impact these populations, and is also responsible for assessing needs, fostering and coordinating collaborative efforts, and conducting epidemiology studies.

In addition, Ayesha develops surveillance reports to assess and monitor performance in each of the special projects, and is responsible for data collection, management, and quality assurance activities; develops epidemiology and data reports that summarize and characterize high-risk groups; develops surveillance reports customized to local health departments; helps prepare the annual progress report and the cooperative agreement to CDC; assists in program evaluation activities and

development of strategic plans; works on the genotyping database; and assists on other program activities as needed.

Ayesha first learned about TB ETN from a colleague. She joined to become more involved in TB education and to meet other people involved in TB. She is also a member of the Membership Development Workgroup because of her interest in working with other people on TB educational needs. Ayesha hopes that TB ETN will continue to provide access to services and resources others can use for TB education and training.

A program that Ayesha has worked on is the Arizona-Mexico "Meet and Greet" program; Ayesha revised the protocol for the program. This is an informal agreement between the public health departments in Arizona and Sonora, Mexico, whereby health officials in Sonora agree to meet deported TB patients at the border and assume responsibility for treatment; the goal is to ensure continuity of care for these deported TB patients. In addition, Ayesha works part-time as a physician at an urgent care clinic in the community.

If you'd like to join Ayesha as a TB ETN member and take advantage of all TB ETN has to offer, please send an e-mail requesting a registration form to tbetn@cdc.gov. You can also send a request by fax to 404-639-8960 or by mail to TB ETN, CEBSB, Division of Tuberculosis Elimination, CDC, 1600 Clifton Rd., N.E., MS E10, Atlanta, Georgia 30333 or, if you would like additional information about the [TB Education and Training Network](#).

—Reported by Regina Bess
Div of TB Elimination

Cultural Competency Update

Members of the TB Education and Training Network (TB ETN) Cultural Competency Workgroup had the pleasure of seeing each other at the 9th Annual TB ETN Conference held in July 2009 in Atlanta. The workgroup held a business meeting followed by dinner for additional networking time.

During the conference, a Cultural Competency Expert Roundtable was held during a lunch session. The roundtable, led by workgroup members, was attended by a dozen people; a variety of interesting topics and challenges were discussed.

Martha Alexander, MHS, from the New York City Department of Health and Mental Hygiene, Bureau of TB Control, and Beth Kingdon, MPH, from the Minnesota Department of Health, TB Prevention and Control Program, will continue as workgroup co-chairs for the 2009–2010 term.

—Submitted by Beth Kingdon, MPH
TB Education Coordinator/Planner
Minnesota TB Prevention and Control Program

Cultural competency tip:

An important reason for incorporating cultural factors into health care is that perception of illness, disease, causal factors, and treatment can vary.

—A Primer for Cultural Proficiency: Towards Quality Health Services for Hispanics

NEW SECTION: TB PROGRAM EVALUATION NETWORK UPDATES

Welcome to a new section of *TB Notes*! Starting with this issue, *TB Notes* will include a section dedicated to information and updates from the TB Program Evaluation

Network (formerly the Evaluation Work Group).

Successful First TB PEN Conference

The first annual TB Program and Evaluation Network (TB PEN) Conference was held July 27–30, 2009, in Atlanta, in conjunction with the 9th Annual TB Education and Training Network (TB ETN) Conference. The conference was deemed a success by all accounts, as evaluators were brought together for the first time from all over the country to meet, share ideas, and receive valuable training related to TB program evaluation.

There were a total of 56 participants representing 47 states, the District of Columbia, seven big cities, and one Regional Training and Medical Consultation Center (RTMCC). The purposes of the conference were to

- Share details of the TB PEN formation with participants;
- Establish a TB PEN governance structure that will support collaboration within TB control programs in implementing evaluation activities;
- Share information on technical assistance and other evaluation capacity building activities;
- Inform participants about comprehensive strategies and activities that seek to address successful program evaluation activities; and
- Identify best practices and systemic approaches that address the challenges and practices of evaluation activities in TB control programs.

In a pre-conference meeting held on July 27, participants were shown the results of the interim steering committee's efforts in preparing draft network bylaws. After general presentations that helped the participants

understand how the concept of TB PEN was developed and that explained the development of the by-laws, the participants had a final opportunity to provide input into the by-laws and reach a consensus on the structure and governance of the organization. Ultimately, the final by-laws were adopted and TB PEN was official.

The agenda of the conference offered many opportunities for the participants and planners to meet the objectives mentioned above. Multiple plenary and breakout sessions were held to carry participants through the evaluation process, introducing technical assistance, resources, and tools available for use. These included basics of TB evaluation, how to use the National TB Indicators Project (NTIP) in program evaluation and progress reports, the role of the TB PEN Focal Point, and the development of logic models. Best-practice examples were shared, allowing for additional learning opportunities.

In the end, participants were able to leave with increased knowledge and understanding of expectations for TB program evaluation. There were ample opportunities for everyone to meet and hear from a variety of colleagues from across the country—fellow experts whom they can now contact for support and technical assistance in the future. Probably the most valuable lesson learned for many is that TB program evaluation is a doable process that will add benefit to programs, and that no one has to feel that they are alone in the process.

—Reported by *Phil Griffin, Melissa Ehman, and Steve Hughes*
TB PEN Interim Steering Committee

Thoughts on the TB Program Evaluation Network

We share the following as a small glimpse into the many talents of Chris Hayden, who retired from a long and productive career in TB control at the end of August 2009. He wrote this a few months after attending and being inspired by the TB Evaluation Work Group/Program Evaluation Network meeting in November 2008.

As a long-time advocate for evaluation—30 years with DTBE (including 15 years in the field), and 10 years with the NJMS Global TB Institute—I was honored and pleased to participate in the Strategic Planning Meeting on TB Evaluation last November. With new national TB objectives, a consistent and efficient way to monitor progress towards achieving these objectives (via NTIP), and several well-tested evaluation tools to identify the root causes of success or failure in meeting objectives, TB programs should be well-poised to more efficiently and effectively carry out evaluation activities that will result in significant program improvements. Furthermore, I believe that the evolution of the Evaluation Working Group (EWG) to the TB Program Evaluation Network (PEN) will further support evaluation capacity building in TB programs. Finally, I came away with the lofty notion that—

The PEN is mightier than the sword
The PEN excels when all come aboard
The PEN will weave a stronger cord
The PEN uncovers causes ignored
The PEN embraced yields rich rewards
The PEN leads programs to be restored
The PEN brings adversaries to accord
The PEN will sound a richer chord.

—Chris Hayden (Ret.)
Div of TB Elimination and
NJMS Global TB Institute

COMMUNICATIONS, EDUCATION, AND BEHAVIORAL STUDIES BRANCH UPDATES

2009 Program Managers' Course

Overview of the TB Program Managers' Course

The overall purpose of the TB Program Managers' Course is to improve the planning and managerial capabilities of new TB program managers throughout the United States. The course is designed for TB controllers, program managers, public health advisors, and nurse consultants with programmatic responsibilities at the state, big city, territory, or regional (within a state) level. Optimally, a course participant should have occupied a TB program management position for at least 6 months but no more than 3 years. Participants are nominated by the DTBE Program Consultant for their area.

2009 TB Program Managers' Course

The 2009 course was held in Atlanta, Georgia, November 2–6, 2009. This year's 5-day training was divided into 18 sessions. Each session stood alone as a block of instruction, but was sequenced to build logically on the sessions preceding it.

The course stressed the practical application of planning, management, and evaluation concepts to the specific issues and concerns of TB programs. Skills essential to TB program management were presented, followed by exercises that encouraged participants to practice using the skills in the classroom setting. The course highlights were the continuity of instructional strategies for the contact investigation, genotyping, and outbreak investigation sessions. These interactive sessions included a continuous case study, various visual aids, and role playing.

At the end of each session, participants were asked to address specific questions in

a Planning Guide, which required them to synthesize concepts presented in the session and apply them to their own programs. The Planning Guide was a tangible product that participants took home from the course, to serve as a record of personal course discoveries and, more importantly, as a road map for improving the effectiveness of their TB prevention and control efforts.

The course concluded with a charge to the participants and an opportunity for each of them to share at least one planned improvement in TB program activities that will be made as a result of taking the course.

For the participants, the course is not entirely over. They will be mailed a 6-month follow-up questionnaire in April 2010. Once this questionnaire is completed and returned, each participant will receive a certificate of completion for the course.

The Communications, Education, and Behavioral Studies Branch (CEBSB) would like to thank the faculty and participants of the November 2009 TB Program Managers' Course for making the course such a success. The hard work of the faculty in preparing the materials for their sessions and the participants' hard work during the course are greatly appreciated.

—Submitted by Regina Bess, BS, and
Allison Maiuri, MPH
Div of TB Elimination



Update on DTBE's Use of the CDC-INFO Call Center

CDC-INFO is a contract service employed by CDC to respond to general public, health care provider, and partner inquiries, via phone and e-mail, and serves as a central access point to CDC for the public. CDC-INFO was launched in February 2005, and DTBE began using the service in 2006. By 2008, all CDC programs were successfully transitioned to CDC-INFO's service.

CDC-INFO consists of three staffing tiers, with each group responsible for responding to different levels of inquiries. Tier 1 staff answer basic questions from the general public, using scripted responses provided by DTBE. Tier 2 staff also provide answers to basic inquiries, using scripted responses as well as approved websites. Tier 3 staff, unlike tiers 1 and 2, are health care professionals who are able to apply scripted responses, information from Internet searches, or personal knowledge to answer questions posed by health care professionals.

To assist CDC-INFO in preparing for and responding to TB inquiries, DTBE developed scripted responses and provided training for CDC-INFO staff. This has helped them manage many basic and routine inquiries. However, the more complex inquiries that CDC-INFO cannot handle are escalated to DTBE. In addition, inquirers are often referred to their state TB control office, or their national TB control program if outside the United States, for further assistance.

Between September 2008 and August 2009, CDC-INFO received approximately 1,200 e-mail inquiries and about 4,250 phone inquiries regarding TB. In the first year after DTBE started using this service (October 2006 to September 2007), approximately 1,500 e-mail inquiries and about 5,100 phone

inquiries were received. TB-related inquiries have remained fairly consistent in their contribution to overall call volume, representing about 1.4% of all calls received in both fiscal years 2007 and 2008.

The three most frequently requested TB topics of inquiry were diagnosis and testing, general information, and transmission. These questions were from the general public as well as from health professionals.

In September 2009, DTBE staff provided in-person training for CDC-INFO staff in Phoenix, Arizona; similar training was also offered to CDC-INFO in 2007. The training ensured and reinforced call representatives' knowledge of key facts about TB, such as the difference between latent TB infection and active TB disease, the method of transmission of TB, as well as the drugs used in treatment of TB. Another key purpose of this training was to illustrate the types of inquiries that should be escalated to DTBE.

DTBE staff conduct a quarterly review of selected calls and review every e-mail. This periodic review of calls and e-mails helps DTBE identify certain information gaps about TB that have been observed in the general public and by health care providers. Also, CDC-INFO's tracking of inquiries has helped DTBE glean useful information that was instrumental in the redesign of the DTBE website (www.cdc.gov/tb).

For information about TB and other health topics, contact CDC-INFO. The service is available by phone at 1-800-CDC-INFO (232-4636) or e-mail cdcinfo@cdc.gov.

—Reported by Ije Agulefo, MPH
Div of TB Elimination

INTERNATIONAL RESEARCH AND PROGRAMS BRANCH UPDATE

PHA Detail to China

This fall, Bryan Kim, a Public Health Advisor in DTBE's International Research and Programs Branch (IRPB), served a 30-day detail to the CDC office in Beijing, China, to provide back-up for the Deputy Director of the CDC Global AIDS Program in China while he was on leave. He also assisted with the administrative issues and tasks required to set up the new DTBE/ International Emerging Infections Program (IEIP) epidemiologist who will be working in China.

During the detail, Bryan had the opportunity to serve as the principal management officer for the US CDC in China, with senior representational and service functions to the US Embassy and other bilateral and multilateral partners, as well as to senior officials in the government of China. In this role as CDC/China overseas business officer, Bryan provided management, business, and administrative support to the 13 CDC programs operating in China. These CDC programs having staff in China include the Global AIDS Program, the Field Epidemiology Training Program, the Influenza Division, the International Emerging Infections Program, the National Center for Health Marketing, the Global Immunization Program, and the Birth Defects Program.

A new DTBE/IEIP epidemiologist, Dr. Carol Rao, was recently hired for China. As part of his duties, Bryan worked out a number of administrative issues to assist getting Dr. Rao on board in China. Dr. Rao will be working on various TB issues in China, including projects related to infection control, laboratory strengthening, and TB/HIV.

Bryan also worked on balancing the budget for the various programs in the CDC office in China. He was responsible for implementing end-of-year contracts, as well as procuring equipment and other supplies for the office. He also conducted interviews and hired local staff for the office. He coordinated and attended meetings with various technical and administrative partners. In addition, he coordinated with all of the CDC programs in China to develop weekly activity reports for the US Embassy.

This very interesting opportunity helped Bryan gain a better understanding of some of the administrative and technical issues taking place in the field. With the new DTBE/IEIP assignee on board, TB-related activities will continue to increase in China.

*—Reported by Bryan Kim, MPH
Div of TB Elimination*

MYCOBACTERIOLOGY LABORATORY BRANCH UPDATES

MLB Offers New Drug Testing Service

The Mycobacteriology Laboratory Branch (MLB) of DTBE has implemented a new testing service for the rapid molecular detection of drug resistance (MDDR) in isolates of multidrug-resistant *M. tuberculosis* complex (MDR TB). This service will use DNA sequencing to identify the mutations most frequently associated with resistance to rifampin (RIF) and isoniazid (INH). In addition, MLB will examine genetic loci associated with resistance to the most effective second-line drugs, fluoroquinolones (FQ) and the injectables amikacin (AMK), kanamycin (KAN), and capreomycin (CAP). Although the presence of a mutation

indicates that a clinical isolate is most likely resistant to the drug of interest, the absence of a mutation is not confirmation of drug susceptibility. Therefore, all isolates will also undergo conventional drug-susceptibility testing using agar proportion to determine phenotypic resistance to first- and second-line drugs (RIF, INH, ethambutol, streptomycin, ofloxacin, ciprofloxacin, KAN, CAP, AMK, ethionamide, and para-aminosalicylic acid). PZA testing will be performed by the MGIT 960 method. Molecular and conventional results will be analyzed and released in a final report.

TB cases must meet one of the following criteria for isolates to be accepted for MDDR testing:

- High risk for RIF resistance or MDR TB (e.g., previous TB; MDR TB contact; foreign-born)
- Known RIF resistance
- Patient works in high-risk setting (e.g., daycare worker, nurse)
- Patient adverse reaction (e.g., RIF allergy)
- Mixed or nonviable culture

Other isolates may be accepted on a case-by-case basis. All isolates must be submitted on either solid media or as MGIT cultures. BACTEC 460 vials will not be accepted.

The MDDR service offered by MLB will improve TB elimination efforts in the United States by quickly identifying MDR TB, which is critical for the appropriate treatment of patients and efforts of TB programs to control the spread of TB.

—Submitted by Mitchell A. Yakrus, MS, MPH
Mycobacteriology Laboratory Branch

Laboratory Services for Nontuberculous Mycobacteria Transferred to Clinical and Environmental Microbiology Branch

Historically, the Mycobacteriology Laboratory Branch (MLB) in DTBE has provided reference services for the identification and typing of nontuberculous mycobacteria (NTM) and for laboratory support in investigations of outbreaks due to NTM. While species identified as NTM can cause pulmonary disease, sources of infection are environmental, and person-to-person transmission has not been documented. Since control programs for TB are not appropriate for NTM, these services and support for NTM will no longer be offered by MLB. They will instead be provided by the Clinical and Environmental Microbiology Branch (CEMB) of the Division of Healthcare Quality Promotion (DHQP). In the past, MLB has worked closely with CEMB by providing laboratory support for epidemiological investigations involving NTM in healthcare settings.

The laboratory services offered by CEMB will be quite similar to those provided by MLB. For submission of isolates, laboratories must provide data to demonstrate that the isolate is not *Mycobacterium tuberculosis* and that the isolate is clinically significant. CEMB will continue to use a combination of high performance liquid chromatography (HPLC) and 16s rRNA gene sequence analysis for identification of NTM. Pulsed-field gel electrophoresis (PFGE) will be used to type isolates in support of outbreak investigations. MLB will retain all isolates and laboratory reports for NTM previously submitted to CDC.

Institutions have been officially notified of the specific services to be provided along with requirements for submission of isolates,

through announcements from the Association of Public Health Laboratories (APHL) and CEMB. For further information, please contact Brandi Limbago (bbl7@cdc.gov) in CEMB at 404-639-2162.

—Submitted by Mitchell A. Yakrus, MS, MPH
Mycobacteriology Laboratory Branch

SURVEILLANCE, EPIDEMIOLOGY, AND OUTBREAK INVESTIGATIONS BRANCH UPDATES

15th Semiannual Meeting of the Tuberculosis Epidemiologic Studies Consortium (TBESC)

Tuberculin skin tests (TSTs) can cause a boosting effect in TB blood tests, according to preliminary results of a new study reported at the 15th Semiannual Meeting of the Tuberculosis Epidemiologic Studies Consortium (TBESC).

Charles Daley, MD, the study's principal investigator, reported that a previous TST can cause previously negative interferon gamma release assays (IGRAs) to become positive in health care workers enrolled in the study. The effect was noted in QuantiFERON®-TB Gold In-Tube (QFT) as well as in T-SPOT®.TB (T-spot), Daley reported.

Enrolled participants for the longitudinal study were healthcare workers undergoing routine latent TB infection (LTBI) screening at one of four TBESC study sites. Participants were screened with TST, T-spot, and QFT; the purpose of the study was to determine the tests' stability, repeatability, and reproducibility, and the impact of TST testing on subsequent IGRA testing.

Healthcare workers enrolled in the study are tested with QFT, T-spot, and TST at 0, 6, 12, and 18 months.

Dr. Daley reported that the effect of TST on subsequent IGRAs occurred within 2 weeks, and occurred in persons who initially had a definitive negative IGRA result.

Approximately 100 principal investigators, project coordinators, and other TBESC personnel attended the meeting July 22–23 at the Hyatt Regency Cambridge Hotel in Cambridge, MA, to discuss recent TB research and to plan next steps needed for current research in breakout sessions. Attendees were welcomed by Ann Cronin from CDC's DTBE and Dr. Bob Horsburgh of the University of Massachusetts, the host site of the meeting. Following the first day of meetings, participants enjoyed a welcome reception in the hotel's courtyard.

Other presentations on the first day of the meeting included a preliminary analysis of molecular epidemiology of multidrug-resistant TB in the United States, and modeling and cost-effectiveness of potential strategies for reducing the burden of TB in the United States.

On the second day of the meeting, Dr. Mary Reichler presented data on her study, "Prospective evaluation of immunogenetic and immunologic markers for susceptibility to *M. tuberculosis* infection and progression from *M. tuberculosis* infection to active TB." Dr. David Holland discussed the costs and cost effectiveness of four potential LTBI treatment regimens, finding that 3 months of INH and rifapentine given by DOT is a cost-effective intervention in certain high-risk groups, when compared to 9 months of INH or 4 months of rifampin.

Other meeting highlights included:

- Publications and Presentations Committee update

- External Relations Committee update
- TRiP Workgroup update
- TBESC recompetition update
- PGO question and answer session

The 16th Semiannual TBESC meeting will be held at the Crowne Plaza Ravinia in Atlanta, GA, January 19–22, 2010.

—Reported by Suzanne Beavers, MD
Div of TB Elimination

Tuberculosis Epidemiologic Studies Consortium Newly Funded Research

In September 2009, the Tuberculosis Epidemiologic Studies Consortium (TBESC) announced the funding of four new research studies aimed at increasing understanding of TB and latent tuberculosis infection (LTBI). The studies were initially nominated as research proposals; the TBESC Semi-annual TBESC Advisory Review (STAR) committee and the DTBE branch chiefs then met to discuss each study's merits and feasibility.

The first study, "Improving Testing for Tuberculosis (TB) and Latent Tuberculosis Infection (LTBI) for Persons with Human Immunodeficiency Virus (HIV) at Health Resources and Services Administration (HRSA) Title III-Funded HIV Clinics" will evaluate methods of providing TB services to HIV-infected persons treated at HRSA clinics. HRSA Title III-funded clinics treat approximately one fourth of all persons in the United States with HIV; a majority of the clinics' clients are members of racial and ethnic minorities. Therefore, studying methods of TB screening and treatment in HRSA clinics, as well as means to improve these methods, may lead to better TB and HIV outcomes in minority populations.

The second research project, "Quantifying the Risk of Premature Death in TB

Survivors," was designed to determine the number of years of life lost after TB treatment is completed. The study will perform a survival analysis comparing the 10-year mortality of persons with active TB to persons with LTBI and the general population. The goal of this study is to determine whether, despite successful TB treatment, TB patients are at risk for premature death because of lung injury or other similar causes and whether that results in a net loss of years of life. This information could then be used to convince patients and their physicians of the importance of LTBI treatment and TB prevention.

A study entitled "Evaluation of Interferon Gamma-Release Assays (IGRAs) in Overseas Immigration Examination of Children in Moderate- and High-burden Countries" is designed to evaluate the feasibility of IGRA testing to predict progression from B2 latent TB to active disease in children immigrating to the United States. Children undergoing overseas immigration evaluation in Mexico, the Philippines, and Vietnam will be screened with TST and IGRA prior to entering the United States; their results will then be compared with risk factors for previous TB exposure. The IGRA and TST results will also be compared to clinical evaluation and sputum culture.

The final approved research study, "Estimating the Cost of TB in the United States," will evaluate the total cost of TB treatment for medium and large TB programs. Data will be gathered on the costs to the TB program per TB case, as well as the societal costs of TB. Results will be used to inform TB program planning on expenses of caring for TB patients; they will also be used to educate persons not familiar with TB care on the costs of caring for TB patients.

The four studies described above are both scientifically sound and can feasibly be completed in the final 2 years of the consortium. We are excited about both starting the newly funded studies and completing current TBESC studies. We look forward to the results of these studies adding to the current knowledge of TB prevention, diagnosis, and treatment.

—Reported by Suzanne Beavers, MD
Div of TB Elimination

NEW CDC PUBLICATIONS

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PERSONNEL NOTES

Ije Agulefo, MPH, a Health Education Specialist with DTBE's Communications, Education, and Behavioral Studies Branch, was a recipient of a 2009 Coordinating Center for Health Information and Service (CCHIS) Director's Award for her contributions to CDC's H1N1 response efforts. She served a first detail to the CDC Joint Information Center (JIC) in May on the Clinician Communication Team (CCT), and completed a second detail in November on the Community Health Outreach and Education Team (CHET). She received a CCHIS Director's Award certificate and letter of commendation for these contributions. Gail Williams, MPH, CHES, Community Health Education Team (CHET) Leader, CCHIS Emergency Communication System, expressed her appreciation for Ije's assistance as follows: "On behalf of all the Community Health Outreach and Education Team members, I want to express my sincere gratitude for allowing Ms. Ijeoma Agulefo to surge with us during the CDC 2009 H1N1 Influenza Pandemic Response in

the Joint Information Center. We particularly requested Ms. Agulefo because of her experience in working within our team structure, her knowledge and working relationship she has developed with our partners, and her ability to join our efforts and hit the ground running. A lot has been accomplished and much needs to be maintained. We were fortunate to have Ms. Agulefo and look forward to her continued support, as time permits."

Ije was specifically cited by Ms. Williams for drafting purchase requests to support the development of Public Service Announcements; collaborating and serving as the CHET liaison in the development of PSAs for the American Indian/Alaskan Native PSAs; contributing to the CHET 2009 H1N1 Strategic Planning Retreat; and serving in the Joint Information Center as an advanced surge member. Ije's experience, qualifications, skills, and training were also cited in the letter of commendation. Congratulations, Ije!

Terry Avant, RN, BSN, has been selected by the Field Services and Evaluation Branch (FSEB) as the senior Public Health Advisor (PHA) for the Georgia TB control program. In his capacity as senior PHA, he will provide leadership and guidance to state program officials for TB control and prevention activities statewide. In his most recent assignment, he served as the Infection Control Coordinator for the Carl Vinson VA Medical Center, Dublin, Georgia. In that position he was responsible for all infection control and infectious disease issues, including the TB and immunization programs. Prior to that, Terry served as the Infectious Disease Coordinator for the Georgia Public Health South Central District, also in Dublin, Georgia, and was responsible for all infectious disease programs for the district.

Terry is a retired Lieutenant Colonel in the U.S. Army. He graduated from the U.S. Army Preventive Medicine Program in 1986 and served as a Community Health Nurse (CHN) until he retired in 1997. As a CHN, he was responsible for infectious disease programs including sexually transmitted diseases, HIV/AIDS, TB, and chronic hepatitis. His duties included maintaining the TB, HIV/AIDS, and hepatitis registries and providing treatment and/or follow-up for these programs. Terry officially joined FSEB and DTBE on November 8, 2009. Welcome, Terry!

Alexander (Alex) Bowler retired on December 1, 2009, after a distinguished career of more than 16 years as the Wyoming state TB program manager. Alex was one of the founding members of the National TB Controllers Association, serving a total of 12 years on the Board of Directors. In 2001, Alex hosted the first meeting of the Northern Rocky Mountain TB Controllers Association in Jackson, and in 2002, he served as the President of the Wyoming Public Health Association.

Alex has been tireless in advocating for the support of TB prevention and control programs in low-incidence areas. Wyoming was one of four states in the Rocky Mountain region that participated in CDC's Tuberculosis Epidemiologic Studies Consortium Task Order #6. This was a 5-year project whose primary purpose was to develop and implement regionally based interventions to strengthen the capacity of TB programs in low-incidence areas.

Alex will be remembered for his wonderful sense of humor as well as for the leadership, knowledge, and expertise that he so skillfully demonstrated every day in his TB work at the local, state, and national level. Alex is looking forward to spending significantly more time in the great outdoors of Wyoming, improving

his hunting and fishing skills. (The elk and the rainbow trout had better beware!) He also intends to do consulting in the health-care field. We wish Alex the very best in this new and exciting phase of his life!

Jesse Bradley, Maria Fraire, and Sharon McAleer, who comprise the DTBE Web Team, were the recipients of the DTBE Director's Recognition Award for the third quarter in 2009 for their outstanding contributions in migrating the DTBE website into the new CDC Web template. The DTBE website is a vital communication tool that receives over 5 million page views each year. The nomination for this award states, "Migrating the DTBE website into the new template was a monumental undertaking. At the time of the migration, the DTBE website was the largest division site to move into the new template. DTBE was also the first division in NCHHSTP to move into the new template. The team prepared for this transition early and systematically. First, they implemented a content inventory system, which consisted of the Team members helping content owners review Web pages, and updating or removing out-of-date pages. Second, the Web Team reviewed communication data for 2 years of website statistics and CDC INFO inquiries to identify the nature of TB information searched by users of the DTBE website. This information was used to inform the development of the new site structure. Third, with virtually no budget, the Web Team creatively identified ways to conduct a baseline usability study and card-sorting activities to gather information about how the DTBE website was searched by users. The team conducted in-person testing with the NPIN usability lab, as well as remote testing using online software. Fourth, results of the usability testing were analyzed to inform the development, navigation, and content labeling of the new DTBE website. The team held a Brown Bag to update division and

center staff on the results of the usability testing, website statistics, content inventory, and plan to migrate to the new template. Fifth, the new CDC web template and navigation structure was re-designed by major adjustments to the layout and content structure (now drastically different from the previous DTBE Website).

"The Team, along with other CEBSB staff, reviewed thousands of web pages to ensure content was moved into the new templates correctly, the navigation structure worked, and that the most accessed information was easy for users to find. The Team reviewed the CDC template package prior to the migration to work out technical problems and to work with the CDC technical web teams to make modifications to the template to ensure that the template would be appropriate for the DTBE website. The Team worked around the limitations of the CDC template to ensure the site met the needs of DTBE and its partners. In all, the Web Team migrated over 4000 web pages, including PDF files and images. The Team anticipated potential problems and worked to resolve the problems prior to migration. They worked with the Mid-tier Data Center to develop a detailed error message to assist users with finding information on the new site." The careful attention to detail, rigor, and service-oriented approach used by the Team Members during the successful migration of the DTBE webpage was recognized with this award.

Ann M. Buff, MD, MPH, will be leaving DTBE's Surveillance, Epidemiology, and Outbreak Investigations Branch (SEOIB) at the end of the year. Effective January 1, 2010, she will transfer to a new CDC position as a medical officer with the Vaccine Preventable Disease Eradication & Elimination Branch, Global Immunization Division, National Center for Immunization and Respiratory Diseases. Ann will be

seconded to the Polio Unit, Eastern Mediterranean Region Office, World Health Organization (WHO), located in Cairo, Egypt. Her family will relocate from Atlanta to Cairo during the summer of 2010.

Ann started in DTBE in July 2006 as an Epidemic Intelligence Service (EIS) Officer assigned to SEOIB's Outbreak Investigations Team. The hallmark of her EIS assignment consisted of large, federally coordinated transportation TB investigations, which led to the completion of her eight EIS core learning activities in record time. In 2006, she led a large TB case-control study aboard the U.S.S. Ronald Reagan, a U.S. Navy aircraft carrier. The team earned a U.S. Public Health Service Outstanding Unit Citation for preventing the unnecessary screening of over 1,200 people, and Ann was awarded the Captain Gregory Gray Award for Military Operational Research from the U.S. Navy. In 2007, she coordinated the investigation of an international traveler with suspected extensively drug-resistant (XDR) TB. The investigation led to her appointment to WHO's TB and Air Travel Working Group, which published the updated *Tuberculosis and Air Travel: Guidelines for Prevention and Control* in 2008. Her work during her EIS fellowship led to numerous invitations to present at national and international conferences and to the publication of several articles, including "Investigation of *Mycobacterium tuberculosis* transmission aboard the U.S.S. Ronald Reagan, 2006" in *Military Medicine*, "Reporting Patterns and Characteristics of Tuberculosis among Travelers, United States, June 2006–May 2008" in *Clinical Infectious Diseases*, and "Two Tuberculosis Genotyping Clusters, One Preventable Outbreak" in *Public Health Reports*.

Following EIS, Ann joined the Outbreak Investigations Team as a staff medical officer and epidemiologist. She supervised EIS

officers and staff during Epi-Aids and technical assistance visits, taught both domestic and international epidemiology courses in Ukraine, South Africa, and Afghanistan, and co-authored the tuberculosis chapter in the *Control of Communicable Diseases Manual*, 19th edition (2008). As a Commissioned Corps officer, she volunteered for a 30-day deployment aboard the U.S.S. Kearsarge to Haiti and the Dominican Republic for "Continuing Promise 2008," a humanitarian assistance mission. In July 2009, she was promoted to Commander, U.S. Public Health Service. We wish Ann and her family all the best as she transitions to her new position in Cairo, Egypt!

Jennifer Carter is a CDC/Emory federal work study student with the Surveillance Team of the Surveillance, Epidemiology, and Outbreak Investigations Branch (SEOIB). She is in her second year at Rollins School of Public Health, Emory University working towards her masters degree in public health in Epidemiology. She graduated from the University of California, Berkeley, in May 2006 with a B.A. in Integrative Biology. She worked during the summer of 2009 at the Infectious Diseases Division at the Contra Costa County public health department in Martinez, CA. She also interned with CDC's Morbidity and Mortality Weekly Report office during the spring of 2009. Jennifer grew up in Orange County, CA, where her parents and most of her family live. Besides infectious diseases, her passions include playing guitar and hiking with her dog.

Pei-Jean Feng, MPH, joined the Clinical and Health Systems Research Branch (CHSRB) of DTBE effective October 12, 2009, and is working as an epidemiologist and analyst primarily with the TB Trials Consortium (TBTC) Data & Coordinating Center. Prior to joining DTBE, Pei-Jean worked as an epidemiologist in the Prevention and

Response Branch of CDC's Division of Healthcare Quality and Promotion (DHQP). While in DHQP, she worked on a team conducting epidemiology and surveillance activities around hospital-acquired methicillin-resistant *Staphylococcus aureus* (MRSA). Pei-Jean holds a masters degree in public health (with a concentration in Epidemiology) from the Rollins School of Public Health at Emory, and a bachelors degree in Human Biology from the University of Texas at Austin. She joins CHSRB as the perfect follow-up to a honeymoon in the Caribbean and Taiwan.

CAPT Timothy Holtz, MD, MPH, FACP, has left DTBE to serve in CDC's Division of HIV/AIDS Program (DHAP) as the Country Program Director, Thailand-U.S. (CDC) Collaboration (TUC) in Bangkok. His last day in DTBE was Oct. 31, 2009. In his new role, Tim will oversee large clinical trials of pre-exposure prophylaxis of antiretrovirals among intravenous drug users, as well as upcoming microbicide HIV prevention trials.

Tim had served as a medical epidemiologist in DTBE's International Research and Programs Branch (IRPB) since September 2002 and as the team lead for the TB Program Strengthening and Epidemiology Unit since July 2008. Tim entered CDC as an Epidemic Intelligence Service (EIS) Officer in 1999, serving as a medical officer in the malaria epidemiology branch. He also completed his preventive medicine residency through CDC, during which time he was intensely involved with the CDC response to the World Trade Center disaster and the anthrax attacks in 2001.

After joining DTBE in 2002, Tim worked in southern Africa, Eastern Europe, and South America on multidrug-resistant (MDR) TB control and TB/HIV program capacity building. He participated in and led several operational research training courses in the

former Soviet Union and sub-Saharan Africa. Tim was part of a team of scientists who recognized the emerging threat of resistance to second-line anti-TB drugs, and his analysis established the evidence base for the working definition and acronym for extensively drug-resistant (XDR) TB. For the past several years, Tim has been working with several governments in sub-Saharan Africa and Central Asia to evaluate the extent of anti-TB drug resistance in the continent, and formulate policies to address XDR TB and HIV/AIDS. Since 2006, he served as CDC's representative on the STOP TB Partnership's Green Light Committee, which aims to increase access to life-saving second-line anti-tuberculosis drugs and provide technical assistance and regular programmatic review of national MDR TB treatment programs. Tim has been cited several times by CDC for his achievements in scientific writing, and has published widely in the public health literature during his time with DTBE. He has also served as mentor and supervisor to five EIS officers in the Division since 2005, and has been committed to bringing high-quality EIS talent to DTBE.

Tim trained in primary care medicine at Harvard University/Cambridge Hospital, Cambridge MA, after which he worked with the Tibetan Government-in-exile in the Indian Himalaya while on a Health and Human Rights fellowship from the Columbia University College of Physicians and Surgeons. He is board certified in internal medicine as well as preventive medicine. Tim is an assistant professor of global health at the Rollins School of Public Health at Emory University, where he teaches courses in TB and health and human rights. He is also an Assistant Clinical Professor of Family and Preventive Medicine at the Emory University School of Medicine, where he leads an elective in human rights and social medicine for medical students. Tim is a founding

member of Doctors for Global Health (DGH), a non-governmental organization that runs health and human rights programs in Central America, South America, and Africa, and served on its board from 1997 to 2003. He was also one of the founding members of the Health and Human Rights Workgroup at CDC in 2003. His medical memoir of working in India with Tibetan refugees, entitled *A Doctor in Little Lhasa: One Year in Dharamsala with the Tibetans in Exile* was published in 2009. He is also the co-author of the Oxford University Press' *Textbook of International Health*, published in 2009 with Drs. Anne-Emanuelle Birn and Yogan Pillay.

Alan Locke, a DTBE Public Health Advisor assigned to Nashville, Tennessee, is serving in a temporary duty assignment (TDY) with DTBE's Data Management and Statistics Branch to support national coordination activities for the TIMS transition. In this position, Alan is communicating with state TB control programs and with DTBE staff involved with the TIMS transition regarding resource needs and electronic data management problems; monitoring and tracking progress towards the TIMS transition by providing regular feedback to DTBE stakeholders and the state TB community; assessing TIMS, eRVCT, and TB program area module (PAM) training needs and coordinating training offers to meet these needs; and assisting in planning efforts for the next phase of the eRVCT and TB PAM.

Alan's assignment with the Tennessee TB control program began in 2007. He has been carrying out a variety of roles in that assignment, working mostly with special projects assigned by the Medical Director/TB Control Officer. One of his projects included collaborating with the state laboratory to produce an ongoing report based on reviewing the quality of sputum collection and turn-around times. The report, which was distributed at the 2008 annual state-wide

meeting, highlighted the need for greater attention to detail in regards to the labeling, collection, and timely transportation of sputum specimens. In fall 2008, in conjunction with the state's TB epidemiologist, Alan gave a presentation to TB staff across the state on RVCT changes, specifically on Tennessee's transition from TIMS to the new TB PAM, which went "live" in January 2009. Alan has also worked on the TB cooperative agreement, conducted program reviews, and participated in a project that looked into the feasibility of using Ora-Quick HIV rapid testing for high-risk TB contacts to infectious cases (currently deemed not feasible for Tennessee). Most recently, Alan has worked on developing a protocol for using videophones and web cameras to perform directly observed therapy. Tennessee is adopting this technology owing to the cost savings and client incentives this program offers; the state is in the early phases of this project and hopes to pilot this in early 2010. Alan joined CDC in 1988 as a Public Health Advisor/Disease Intervention Specialist (DIS) in CDC's STD program in Miami, and subsequently served in a number of STD assignments with increasing responsibilities. He joined DTBE in 2006 with an assignment to Fort Wayne-Allen County, Indiana, and in 2007 he was assigned to the TB control program in Nashville, TN.

Lee Ann Ramsey is the recipient of the DTBE Director's quarterly recognition award for the Fourth Quarter in 2009. Lee Ann was nominated "for her exemplary work to improve the business practices of not only the Surveillance, Epidemiology, and Outbreak Investigations Branch (SEOIB), but of the entire Division of Tuberculosis Elimination. At a time of unprecedented increases in the complexity of administrative procedures and at a time when SEOIB's other Public Health Analyst has been detailed to another job, Ms. Ramsey has

tackled and resolved such difficult problems as bringing order to contract procedures, understanding and responding to new hiring procedures, ensuring that all staff members have adequate office space and computers support, and getting travelers to their destination and home. Specifically, Ms. Ramsey has worked tirelessly to establish efficient budgeting procedures for our CITS contract; kept abreast of new AHRC procedures and requirements and established standardized position descriptions for our most common positions; responded to the challenges of housing new staff members and led the Division in establishing office sharing procedures; and mastered GovTrip complexities that have resulted in reducing last-minute travel crises from being commonplace to being rare."

Current staff members of SEOIB are unanimous in their gratefulness for being able to count on Ms. Ramsey to understand the labyrinth of the federal bureaucracy, foresee problems before they occur, and implement effective procedures that minimize repetitive and inefficient work.

Valerie Anne Robison, DDS, MPH, PhD, who has served as Surveillance Team Leader in DTBE's Surveillance, Epidemiology, and Outbreak Investigations Branch (SEOIB) for over 5 years, left DTBE on December 18 to become the Lead Dental Officer in the Division of Oral Health in the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP). She will lead the Surveillance, Investigation and Research Team, which is charged with surveillance of national oral disease and behavioral (using NHANES, BRFSS, and cancer registries), guidelines development, and evaluation of preventive interventions. She will collaborate with international partners in oral health policy in less-developed countries, which has been a long-time passion. Val received her D.D.S. (Doctorate in Dental Surgery) in 1979

from the University of North Carolina in Chapel Hill. She worked in Kathmandu, Nepal, from 1980 to 1982 in Hospital Dentistry. She returned to the United States in 1982 and received her MPH (in International Health) from Johns Hopkins University. Preferring tropical climes, she lived in Tanzania 1983–1990, working at the Ministry of Health as National Coordinator of Community Oral Health Programs. She again returned to the United States to enroll in the doctoral program of the University of North Carolina, where she received her Ph.D. in Epidemiology in 1995. She moved to Tyler, Texas, in 1995 and worked for the University of Texas Health Science Center at Tyler, where she was responsible for TB surveillance, epidemiologic, and health services research in a state-wide program. In 1996, Val took a faculty position at the Johns Hopkins School of Hygiene and Public Health. This involved living in northern Thailand for 3 years as director of field activities for the HIV/AIDS collaborative research program between Johns Hopkins University and Chiang Mai University, Thailand.

Val began her CDC career in 1999 when she came to Atlanta and joined the Division of Reproductive Health in HIV/AIDS research. From 2002 to 2005, she worked in the Division of Oral Health and was responsible for national surveillance and integration of oral health into other Divisions' activities at NCCDPHP. She was recently cited at her 30-year dental school reunion as having the most interesting and unusual career path in her class.

Val moved to DTBE in 2005 where she became the Team Lead for the Surveillance Team in SEOIB. In that position, Val has been responsible for maintaining and improving our excellent surveillance data quality and disseminating summaries of our surveillance data, most prominently through

the World TB Day *MMWR* surveillance summary in March of each year and through the annual *Reported Tuberculosis in the United States*, published in the fall of each year. We know of no other program at CDC that publishes surveillance summaries in a more timely fashion. Her team has won kudos for the 2009 revision of the RVCT data collection form, the TB surveillance data training program, the enhanced MDR/XDR registry project, National Surveillance for Severe Adverse Events (Hospitalization or Death) Associated with Treatment of Latent Tuberculosis Infection, the Online TB Information System (OTIS), National TB Surveillance Data Analysis Steering Committee (ASC), web-based training on assurance of confidentiality to protect NTSS data, and the online TB data request system.

We have grown to cherish Val's even temper, her dedication to encouraging team cohesion, and her willingness to help anyone who wants to understand TB surveillance. We wish Val the best in her new job and her return to her roots in oral health.

James Shepherd, MD, PhD, joined the International Research and Programs Branch (IRPB) of DTBE effective October 25, 2009. He has assumed the position of Associate Director for TB at CDC Botswana (aka the Botswana USA or BOTUSA collaboration) in Gaborone. He is leading a very talented group of locally employed staff in the conduct of clinical trials, operations research, epidemiological studies, and public health evaluations to address the TB and TB/HIV situation in Botswana. These activities will be done in close collaboration with the Global AIDS Program at CDC Botswana, the Ministry of Health, and other in-country partners.

Dr. Shepherd, who is a dual citizen of the US and the UK, completed his scientific training at the University of London before beginning

a career as a molecular biologist/immunologist in the US. His interest in infectious diseases and Tropical Medicine led him towards a clinical career, and he left bench science to return to medical school at the Columbia University College of Physicians and Surgeons in 1995. After completing his internship and residency in Internal Medicine at Beth Israel Deaconess Medical Center in Boston and fellowship training in Infectious Diseases at Johns Hopkins Hospital in Baltimore, he took a position as an Assistant Professor of Medicine at University of Maryland School of Medicine, where he acted as clinical advisor to a large PEPFAR-supported antiretroviral therapy (ART) program in Nigeria. He lived and worked in Nigeria for two and a half years prior to joining CDC-Botswana from Nigeria in January 2008 as the Care and Treatment Team Leader within the Global AIDS Program Team and left this position to join DTBE. His research interests over the recent years have focused on HIV subtype differences in pathogenesis, the natural history of HIV co-receptor tropism, the emergence of antiretroviral drug-resistance in Africa, and operational research in HIV and TB treatment programs in Africa.

CALENDAR OF EVENTS

Feb. 17–20, 2010

Preventive Medicine 2010

Crystal City, VA

American College of Preventive Medicine

March 11–13, 2010

14th UNION North American Region

Annual Conference

Orlando, FL

IUATLD

April 14–17, 2010

The Denver TB Course

Denver, Colorado

National Jewish Medical Center

<http://www.nationaljewish.org/education/pro-ed/events/tb-course.aspx>

April 19–23, 2010

EIS Conference

Atlanta, GA

CDC

May 14–19, 2010

2010 ATS International Conference

New Orleans, LA

American Thoracic Society

<http://www.thoracic.org/sections/meetings-and-courses/international-conference/2010/>

June 22–24, 2010

2010 National TB Conference

"Innovate to Accelerate: On the Move to Eliminate TB"

Crowne Plaza Ravinia

Atlanta, GA

Conference and registration information available soon

For information contact: Sherry Brown - smh6@cdc.gov