



Dear Colleague:

We in the CDC Division of Tuberculosis Elimination (DTBE) were very pleased to learn of the appointment of Tom Frieden, MD, MPH, to the position of CDC Director, and we proudly welcome him back! A physician with training in internal medicine, infectious diseases, public health, and epidemiology, Dr. Frieden worked for CDC from 1990 until 2002 and is especially known for his expertise in TB control.

Dr. Frieden began his career at CDC in 1990 as an Epidemiologic Intelligence Service (EIS) Officer at the New York City (NYC) Health Department. As a CDC assignee, he then served as Director of the Bureau of Tuberculosis Control and Assistant Commissioner for the NYC Health Department from 1992 to 1996. In that role, he led a program that rapidly reduced TB, including reducing cases of multidrug-resistant (MDR) TB, by 80 percent.

Dr. Frieden was then “loaned” for 5 years to the World Health Organization office in India, where he assisted with national TB control efforts. The program he helped put in place in India has now treated more than 10 million patients and has saved more than one million lives.

In 2002, after his tremendous success in India, Dr. Frieden was appointed NYC Health Commissioner. During his tenure in that position, the number of smokers in New York City declined by 350,000, and teen smoking decreased by half. New York City became the first place in the United States to eliminate trans fats from restaurants, to rigorously monitor the diabetes epidemic, and to require certain restaurants to post calorie information prominently. Also under his leadership, the department established the largest community electronic health records project in the country.

Dr. Frieden has received numerous awards and honors and has published approximately 200 scientific articles. A recent publication of note is “Lessons from tuberculosis control for public health,” which appeared in the April 2009 issue of the *International Journal of Tuberculosis and Lung Disease*. He received both his medical degree and master’s of public health degree from Columbia University, and completed infectious disease training at Yale University. Dr. Frieden arrived at CDC headquarters in June.

Of note, one of Dr. Frieden’s first official duties as Director of CDC was to serve as the keynote speaker at the 2009 National TB Conference, held in Atlanta June 16–18. In his remarks, Dr. Frieden spoke of being TB Controller for New York City at the time of the alarming spike in TB cases, and in particular the outbreaks of multidrug-resistant TB

that were occurring. He recalled the words of Dr. Karel Styblo, who was scientific director of the International Union Against TB and Lung Disease (IUATLD) at the time, and had pioneered the development of the directly observed treatment, short-course (DOTS) strategy. While visiting in the early 1990s, he reviewed Dr. Frieden's annual report on the NYC TB control program, then said, "You diagnosed 3,811 patients with tuberculosis. How many of them did you cure?" This spurred Dr. Frieden to initiate a program of cohort analysis, which assured that every TB patient was accounted for and followed to cure, and which resulted in "turning the tide" of TB in New York City. Dr. Frieden reminded us that there can be no cheating -- accountability for each patient's outcome is key.

Please note, DTBE educational materials on cohort review are available on our website; the DVD includes a video segment with Dr. Frieden discussing the benefit of cohort review ([www.cdc.gov/tb/education/cohort.htm](http://www.cdc.gov/tb/education/cohort.htm)). Below are brief descriptions, with links to ordering information:

**Understanding the TB Cohort Review Process: Instruction Guide**

This document explains what the cohort review method is, how to use it to enhance your current TB control activities, and how to adapt it to your own program area.

**Understanding the TB Cohort Review Process: DVD**

This 22-minute DVD brings the cohort review process to life, illustrates the benefits of adopting cohort review, and highlights the roles of the cohort review team members.

**Ordering Information**

With the theme, "TB Elimination – It Takes a Village," the conference was a very successful gathering of TB control staff coming together to discuss their insights and experiences and learn from each other. A regular highlight of these conferences is the poster competition, owing to the wide array of topics addressed and information shared. Please see the articles in this issue about the poster competition awards and about two other special awards that were given.

Other TB-related conferences in which DTBE staff have recently participated included the 2009 APHL Annual Meeting, held May 5–8 in Anchorage, Alaska. Sponsored by the Association of Public Health Laboratories, this meeting brought together laboratory scientists, governmental officials, corporate representatives, and others for 4 days of intensive sessions on public health laboratory science, practice, and policy.

A small number of DTBE staff attended the 2009 American Thoracic Society (ATS) International Conference, May 15–20, in San Diego, California. In addition to the planned activities, the ATS organizing staff also monitored the public health issues raised by the outbreak of swine flu, and added a special session with experts in influenza and public health. With thousands of experts in respiratory health in attendance from around the world, ATS recognized the opportunity and obligation to provide the latest information about this public health challenge.

Upcoming conferences and meetings for this summer include the 15th semi-annual meeting of the TB Epidemiologic Studies Consortium (TBESC), being held July 22–23 at the Hyatt Regency Cambridge in Boston, Massachusetts, as well as the TB Education and Training Network (TB ETN) annual conference, which meets in Atlanta July 28–30, at the Westin Atlanta North at Perimeter. This year's TB ETN meeting will serve as a joint conference for the TB Education and Training Network (TB ETN) and the TB Program Evaluation Network (TB PEN). I hope you will find time during this busy summer to attend these important meetings!

Kenneth G. Castro, MD

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No. 2, 2009

## HIGHLIGHTS FROM STATE AND LOCAL PROGRAMS

### Diabetes and TB

*The following article originally appeared in the spring 2009 edition of the Curry National TB Center (CNTC) newsletter and is reprinted here with the author's permission.*

Recent research sheds new light on the impact of diabetes on TB, as well as how TB treatment can affect diabetes control. Gisela Schechter, MD, MPH, a CNTC Warmline consultant and MDR TB consultant with the California TB Control Branch, has shared a summary of recent studies that increase our understanding of the complexities of co-managing TB and diabetes. A few highlights of her review are as follows:

- Patients with diabetes have increased risk of progression to active TB. A Harvard meta-analysis (Jeon and Murray, 2008) looked at 13 observational studies that included over 1.7 million participants and found that the relative risk (of active TB) was 3-fold higher among those with diabetes.
- In presentation and diagnosis of TB among diabetics, there is an increased likelihood of lung lesions confined to the lower lobes. In one study (Alisjahbana et al., 2007), this difference ranged from 2.4% without diabetes to 23.5% with diabetes. Diagnosis may be delayed because the radiologist and treating physician may not "think TB" without upper-lobe abnormalities present.
- Response to treatment: The old dogma used to be that despite the increased risk of latent TB Infection (LTBI) progressing to active TB

among diabetics, these patients did just as well on treatment. A Texas study (Restrepo et al., 2008) found that on average, diabetics achieved sputum culture conversion 5 days later than non-diabetics. A study in Taiwan (Wang et al., 2008) showed significantly higher mortality among diabetics. Of note, about one third of their TB patients had diabetes.

- Effect of TB treatment on diabetes: It is widely known that rifampin affects the levels of antiretroviral therapy used to treat HIV, through its effect on the CyP450 enzyme system. Both sulfonorylureas (such as glipizide) and thiozolidinediones (such as Avandia or Actos) are metabolized by this same system, so blood levels of these drugs may be lower when rifampin is being used, and therefore diabetes control may suffer. Careful monitoring is required.
- Diabetics also have a higher incidence of peripheral neuropathy while taking isoniazid (INH) for active TB or LTBI. To protect against this complication, routinely give vitamin B6 at a daily dose of 25 to 50 mg to diabetics whenever INH is prescribed.

*—Reported by Gisela Schechter, MD, MPH  
Physician Liaison, TB Control Branch  
California Department of Public Health*

### Smoking as a Risk Factor for Tuberculosis

Note: Lynelle Phillips, a former CDC Public Health Advisor, teaches at the University of Missouri Sinclair School of Nursing. One of her students (pictured below) wrote his final paper for community health on smoking and TB. The idea

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for this paper occurred to him while he was involved in a TB investigation in a Kansas City homeless shelter, where he observed many smokers. The assignment required the paper to be persuasive, thus the author takes a somewhat editorial tone. We reprint it here, with his permission, as an interesting and thoughtful opinion piece.

Although the incidence and prevalence of tuberculosis (TB) are much lower in America than in other areas of the world, globally the mycobacterium is still alive and kicking, and the U.S. may experience another resurgence of TB if diligent care is not taken by doctors, nurses, and public health workers. Of course, credit must be given for the achievements that have been made in recent years, but the low rates we enjoy in the United States do not exclude Americans from susceptibility. This is why the U.S. strategy for battling the disease must be monitored and updated continuously in accordance with new findings from the research realm.

Smoking tobacco has been suspected to be a contributing risk factor for TB for decades, and some recent research seems to substantiate this claim. It is hoped that smoking will be added to the official list of risk factors for TB. The list of risk factors for TB was established for the purpose of education and prevention. These goals can be enhanced by the addition of smoking to the list. Smoking tobacco products leads to higher rates of TB transmission and disease, and such should be known by a greater audience (Bates et al, 2007).

#### *Current Risk Factors*

There are a number of risk factors that lead to increased TB morbidity and mortality. Some of the most significant include recent TB infection, crowded living conditions, as well as a diagnosis of HIV or another condition that suppresses the immune system (CDC, 2000). These carry some of the highest relative risks, but other risk factors can contribute to one's risk as well, such as low socioeconomic status, poor nutrition, injection drug use, alcohol consumption, and living or working in high-risk settings (CDC, 2000; Bates et al, 2007; Altet-Gomez et al., 2005).



These risk factors give us a great deal of information about the disease. They allow us to see TB's main avenues of transmission and prevalence. This ultimately leads to increased awareness, which is hopefully followed by enhanced prevention measures taken against the disease. This is especially important, considering that TB is one of the more tenacious infectious diseases, one that requires long treatment regimens, patience, and perseverance among those being treated. CDC recommends that preventive measures be given a high priority in

combating the disease. The currently recognized risk factors play a huge part in this preventive role. It is my belief that CDC could further enhance the list of risk factors by adding smoking to it.

#### *Evidence Supporting Smoking as a TB Risk Factor*

There are several reasons for smoking to be on the list of TB risk factors. The connection between the two seems obvious: one pulmonary insult must certainly compound another. Smoking's harmful effects on immunity have been long known (Arcavi & Benowitz, 2004). Decreased ciliary function and immunity can lead to increased risk for acquiring other respiratory infections, such as pneumococcal pneumonia, Legionnaire's disease, and influenza (Arcavi & Benowitz, 2004; Bothamley, 2005).

Recent research demonstrates a direct connection between smoking and TB. According to Bates et al. (2007), smoking increases one's risk of latent TB infection by nearly two times, as well as increasing one's risk of developing active TB by around two and a half times. The basis of these findings was a large-scale meta-analysis, in which studies from 14 different countries were assessed, ranging from first-world to third-world settings. Confounding variables were scrupulously assessed. Other research has produced similar results, with smokers having the relative risk of around twice that of nonsmokers for acquiring TB (Arcavi & Benowitz, 2004; Bothamley, 2005; Hussain, Akhtar, & Nannan, 2003). Smoking has also been found to lead to increased severity of the disease, longer hospital stays, and decreased survival rates (Altet-Gomez et al., 2005; Wang et al., 2007). While some extraneous variables may play into this research, the striking similarity among findings should be more than convincing regarding the relationship between smoking and TB.

Assessing other factors that play into the relationship is important in making sound decisions about causation and correlation.

However, this particular relationship seems to hold regardless of age, gender, or smoking amount and duration (Arcavi & Benowitz, 2004; Bates et al., 2007). Second-hand exposure to tobacco smoke has also been found to lead to increased risk for TB (Chiang, Slama, & Enarson, 2007; Lin, Ezzati, & Murray, 2007). Although lower socioeconomic groups are generally more susceptible to TB through a combination of multiple risk factors (Lin, Ezzati, & Murray, 2007), the risk spans all socioeconomic groups.

#### *Global Impacts and Solutions*

Governmental and societal perceptions of tobacco use are in need of overhaul if we are to beat TB disease. According to Slama (2004), "Tobacco is the world's biggest preventable killer." The problem is huge, and is possibly perceived as too big to tackle by many. In the 1940s and 1950s, smoking was "hip"; it was also profitable and created jobs (Slama, 2004). Prevalence rates in the 1950s were as high as 70% in North American and Western European men (Slama, 2004). The seed was sewn, and the tree of death and disease began to grow. Sadly, it continues to grow, despite knowledge that smoking causes multiple forms of cancer, cardiovascular diseases, negative reproductive effects, and of course respiratory diseases such as TB, among other things (Slama, 2004).

Prevalence rates may decline in some populations, but in general, the trend is still growing, taking into consideration the higher rates of smoking among lower socioeconomic groups (Slama, 2004). This is truly frightening, as those most susceptible to TB infection and disease are those who are smoking more and more. Where is the intervention? How can the government step in? Aid programs to the poor generally do not include education on the ill effects of smoking (Slama, 2004). Massive international cooperation, legislation, and a push towards abstinence from smoking is a must. This can be accomplished by increasing awareness and education efforts, and by making smoking cessation tools more available (Slama, 2004).

The governmental advocacy of smoking cessation has not kept up with the spread of the pandemic; this will inevitably lead to increased rates of TB, and deaths associated with its spread.

One suggestion is to put a certain amount of pressure or expectation on health care providers to take the lead on this issue. Physicians and nurses are at the forefront of patient care, and need better direction and stronger conviction in promoting abstinence from smoking. This drive should occur in every patient contact with smokers. American health authorities can contribute to this cause through unanimous agreement that smoking is truly a risk factor for TB. Many countries look to American medicine as a leader, since U.S. technology and research have led to better health outcomes historically. Taking the step of actively pushing the anti-smoking campaign could help in the battle against TB and would improve world health in general.

### *Conclusion*

The supporting evidence shows that smoking increases one's risk for TB. The implications of this increased risk are significant, since there are currently over one billion smokers in the world today, and around two million deaths attributable to TB every year (Lin, Ezzati, & Murray, 2007). Given TB's tenacity and length of treatment, and the lack of an effective vaccine against the disease for adults, prevention methods must be optimized as the first line of defense. Part of this optimization should involve the addition of smoking tobacco as a risk factor for TB. Taking this measure could mean increased awareness among both health care providers and the general public, hopefully leading to decreased morbidity and mortality from TB disease.

—Written by Nicholas Robert  
Univ. of Missouri Sinclair School of Nursing  
Submitted to Lynelle Phillips  
Former CDC Public Health Advisor

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## News from the 2009 National TB Conference

### Poster Competition Winners

In June 2009, the National TB Controllers Association (NTCA) held its fourth annual poster contest at the National TB Conference in Atlanta. This year, 55 posters were developed and submitted by TB program staff from throughout the country, and were available for viewing during most of the meeting. A panel of judges reviewed and rated the posters on three criteria areas:

1. Relevance to TB control or elimination  
Topic provides information that can potentially be transferred to another program; addresses or identifies a high-priority area of TB program or problematic area; provides strategy for better use of resources.
2. Clarity of information  
Information is clearly written, and uses short sentences and bulleted points to enhance readability; adequate amount of

information provided to understand project, but not a complete journal article!

3. Graphic presentation  
Graphics are used to clearly present information (photographs to demonstrate or model, graphs and charts to display data); graphics are appealing to the viewer (not crowded, colors are used appropriately).

The poster judges for this year were Wanda Walton, John Jereb, Bob Pratt, Tracy Dalton, and Cheryl Tryon. A special thanks to them for their diligence.

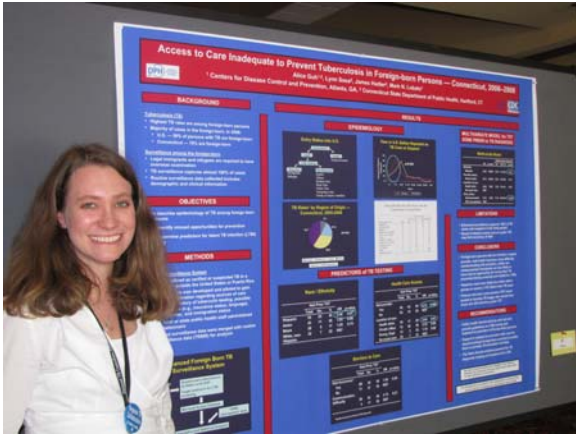
This year the judges gave two first-place awards because of ties among the entrants, one second-place award, and one third-place award.



A first-place award was given for the poster "Multidrug-Resistant TB in the Federated States of Micronesia: Case and Contact Characteristics, Treatment Strategies and Challenges." The authors were Dorina Fred, from the TB/Leprosy Program in Chuuk/Pohnpei, Federated States of Micronesia; Sapna Bamrah, Rinn Song, Mitesh Desai, Sundari Mase, and Andy Heetderks, CDC; Mayleen Ekiek, Dept. of Health & Social Services, Pohnpei, FSM; Helden Heldart and Joe Kenit, TB/Leprosy Program, Chuuk, FSM; Boris Pavlin, WHO/Pohnpei, FSM; Richard Brostrom, Dept. of Public Health, Saipan, CNMI; and Masae Kawamura, Curry National TB Center,

San Francisco, CA. Dorina Fred presented the poster.

The other first-place prize went to the poster "Enhanced Surveillance on Access to Care to Prevent TB among the Foreign Born – Connecticut, 2005–2008." Authors were Alice Guh, CDC Epidemic Intelligence Service Officer; Lynn Sosa and James Hadler of the Connecticut Department of Public Health; and Mark Lobato, CDC. Lynn Sosa presented the poster.



The award for second place was given for the poster "Development of MDR TB Case Study Modules." Authors included Sharoda Dasgupta, Sarah Segerlind, and Sundari Mase, CDC; Barbara Seaworth, Heartland National TB Center, San Antonio, TX; Alfred Lardizabal, Global TB Institute, Newark, NJ; Masae Kawamura, Curry National TB Center, San Francisco, CA; David Ashkin, Southeastern National TB Center, Gainesville, FL; and Charles Daley, National Jewish Health, Denver, CO. The poster was presented by Sharoda Dasgupta.

The third-place winner was the poster "Responding to the Changing Epidemiology of TB in Gwinnett County, Georgia." Authors included Rose-Marie Sales, from the Georgia Dept. of Human Resources; Alana Sulka and William Blomenkamp of the East Metro Health District, Lawrenceville, GA; Lisa Watson of the Emory University Rollins School of Public Health, Atlanta, GA; and Beverly DeVoe-Payton with

CDC and the Georgia Dept. of Human Resources. Rose-Marie Sales presented the poster.

Congratulations to the winners of this year's competition, and thank you to all submitters for sharing your data, experiences, and excellent solutions!

—Submitted by Regina Bess and Ann Lanner  
Div of TB Elimination

## Presentation of Special Awards

On June 18, the last day of the 2009 National TB Conference, Dr. Philip LoBue, Associate Director for Science for DTBE, presented special awards to two individuals at the conference. For those who missed this part of the conference, we share this summary of the presentation.

Dr. LoBue announced, "We have two special awards we would like to make at this time. We would first like to recognize Dr. Dorina Fred, Chuuk TB clinician, for her work. Dr. Fred has been quietly and competently managing 16 multidrug-resistant patients in the TB isolation ward since she opened it last August. Ten of these patients are children. In addition to these 16, on any given day, she is managing 50 to 60 active, drug-susceptible TB cases on her island. Her program has also initiated LTBI therapy for over 100 MDR contacts using daily DOT. One year ago, she had three staff members; she now manages 21.

"Her work has brought calm to the storm of MDR in her community, and she has reduced the number of TB deaths by *90 percent* in one year. Dr. Fred has become a respected leader in her community, and through her actions she has improved the overall health of that community. For her continued efforts, we would like to present her with this small token of our appreciation."

She was presented with a plaque, which reads,

*The Division of Tuberculosis Elimination presents a Special CDC Service Award to Dr. Dorina Fred.*

*For gentle compassion to your tuberculosis patients  
For untiring commitment to your community  
For remarkable advances to your State program  
For exemplary performance to the Nation's TB Controllers  
For valuable service to the entire Pacific Region*

*Given this 18th day of June, 2009.*

Mr. Phil Talboy, Deputy Director, DTBE, escorted Dr. Fred to the stage, where she received the award. The audience gave her a standing ovation for this recognition.

Dr. LoBue continued, "We would also like to acknowledge Dr. Richard Brostrom. When the Federated States of Micronesia requested assistance and additional regional support was required, Dr. Brostrom made it his priority to roll up his sleeves, and join the local Chuuk TB program and the CDC team for the outbreak investigation.



"Since that time, Dr. Brostrom has returned to Chuuk almost every month to help Dr. Fred with treatment of the cases and administrative support to implement the changes you just heard about. While providing crucial expertise, Dr. Brostrom never forgot about the patients—soliciting support, delivering gifts, and helping to arrange classroom education for the patients. He was instrumental in making life at the hospital the best it could be.

"Dr. Brostrom has been a humble, unifying presence in the U.S.-Affiliated Pacific Islands for the last 12 years. For his tireless service, we would like to acknowledge him with this small token of our appreciation."

Dr. Brostrom also received a standing ovation from the audience. He received a plaque as well; the inscription reads,

*The Division of Tuberculosis Elimination presents a Special CDC Service Award to Dr. Richard Brostrom.*

*It is with great esteem that we acknowledge the significant contributions of a thoughtful person whose efforts have indeed changed the world for TB patients, health care workers, and fellow residents in the U.S.-Affiliated Pacific Islands.*

*Given this 18th day of June, 2009.*

Drs. Fred and Brostrom are richly deserving of this recognition (which was in addition to winning one of the first-place awards in the poster competition), and everyone present was clearly delighted to see them receive these awards.

Speaking for our colleagues in DTBE, we thank Drs. Fred and Brostrom for their dedication and hard work on behalf of the citizens of Chuuk, Federated States of Micronesia. We are honored to work with such outstanding partners.

*—Reported by Andy Heetderks, MPH,  
and Phil LoBue, MD  
Div of TB Elimination*

## 2009 EIS Conference

CDC's 58<sup>th</sup> annual [Epidemic Intelligence Service \(EIS\)](#) Conference was held in Atlanta April 20–24, 2009. EIS is a 2-year postgraduate program of service and on-the-job training for health professionals interested in the practice of applied epidemiology.

A car fire in the hotel parking garage just before the plenary session made for a memorable start to the conference. The last day was punctuated by a late-breaking presentation about the recent emergence of novel influenza A (H1N1). In between, the EIS conference carried on with its usual mix of scientific presentations by current EIS officers and recruitment activities for the incoming class.

*Incoming EIS Officers (Class of 2009).* Please see the Personnel Notes section for the full write-ups of these officers.

Bisrat K. Abraham, MD, MPH, will be the new EIS Officer for the Surveillance, Epidemiology, and Outbreak Investigations Branch (SEOIB). Bisrat obtained her MPH and MD degrees from Emory University. Most recently, she is in her last year of a 3-year residency in internal medicine at Johns Hopkins Hospital in Baltimore.

Eleanor S. Click, MD, PhD, will be one of the new EIS officers in the International Research and Programs Branch (IRPB). Ellie is a graduate of Wellesley College and the Stanford University School of Medicine. She trained in pediatrics at the University of Washington in Seattle and holds a PhD degree in genetics from Stanford University.

Matthew Willis, MD, MPH, will be the other new EIS officer in IRPB. Matt is an internist coming from the Navajo Area Indian Health Service, where he has been working the past 4 years. He attended Brown University, majoring in medical anthropology, then attended medical school at

Temple. He earned his MPH in 2000 from the Harvard School of Public Health.

### *Outgoing EIS Officers (Class of 2007)*

Rinn Song, MD, of IRPB, received the Paul C. Shnitker International Health Award at the EIS conference. Rinn is starting a fellowship in pediatric infectious diseases at Harvard Medical School in June. Also completing 2-year assignments, Emily Bloss, PhD, MPH, MA, will stay on with IRPB in a full-time position with the Program Strengthening/Epidemiology Team. Mitesh Desai, MD, MPH, who served his EIS term with SEOIB, will transfer to a medical epidemiologist position with CDC's Global AIDS Program.

We in DTBE thank our outgoing EIS officers for their hard work and contributions during their time with us and look forward to welcoming our new EIS officers in July!

—*Reported by Maryam Haddad  
Div of TB Elimination*

## DTBE Pilot Study on Teleworking

In the fall of 2008, DTBE initiated its telework (TW) pilot. The pilot was designed to provide insight into the sufficiency of the Division's policy, check for logistical barriers to teleworking, and engage others—teleworkers, supervisors, and non-teleworkers—in TW as a work strategy. The Field Services and Evaluation Branch's Program Evaluation Team formally evaluated the TW pilot. The evaluation focused on assessing stakeholder attitudes towards teleworking and changes in perceptions towards teleworkers' job performance. Results from the evaluation point to key areas on which to focus in developing the Division's future TW policy.

Twelve supervisors (including two who were teleworking) and 26 employees participated in

the pilot and provided feedback on the process and policy. Seven non-teleworking staff voluntarily provided feedback at the conclusion of the pilot. As part of the evaluation, teleworkers and non-teleworkers were asked to complete self-assessments of work characteristics. Supervisors assessed their teleworking employees. These work characteristics—responsiveness, promptness, and productivity—were assessed when teleworkers were in the office and teleworking, on a scale of 1 (poor) to 5 (exceptional).

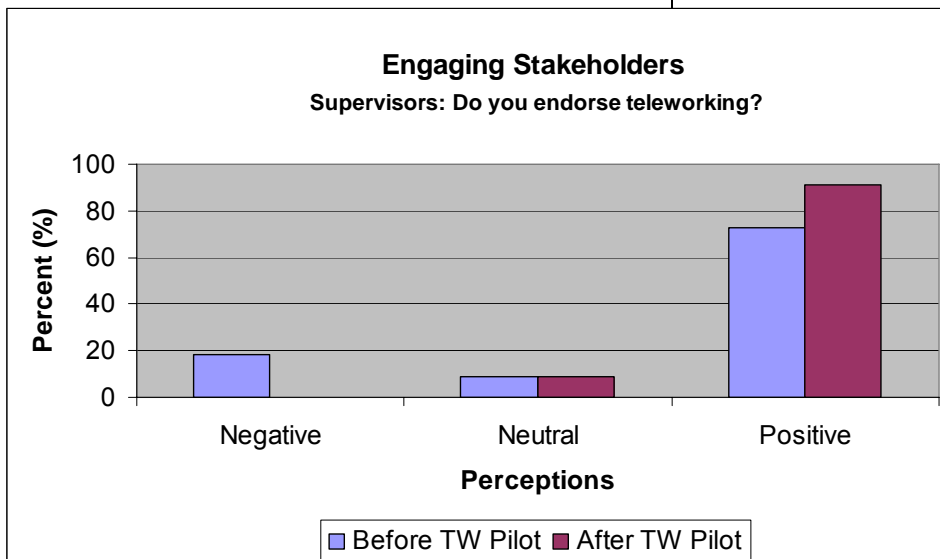
Overall, supervisors' engagement with the concept of teleworking increased by 19 percentage points during the TW pilot, with 91% of management surveyed holding a positive attitude towards teleworking after the pilot in comparison with 72% before.

attitude towards teleworking after the pilot in comparison with 72% before the pilot.

Differences between teleworker and supervisor perceptions of productivity were readily apparent. The majority of teleworkers (72%) reported exceptional productivity while teleworking, which contrasted with 40% of supervisors who rated their employees to have exceptional productivity. Supervisors' perceptions of teleworkers' productivity changed by nine percentage points from the midterm to the final evaluation with a decrease occurring in those perceiving "average" productivity and the increase in those noting "above average" productivity in their employees. The majority (96%) of teleworkers were deemed eligible to continue teleworking based on the supervisors' evaluation of their job performance. Non-teleworkers indicated that their productivity during the TW pilot was not affected by their teleworking teammates.

Participants were also surveyed regarding logistical challenges encountered during the pilot. Approximately 20% of teleworking respondents reported that CITGO (a Web-based application CDC employees can utilize to securely access applications and data remotely) limited their

functionality when teleworking. At the office, 37% of supervisors reported adjusting project timelines and reassigning tasks, delaying meetings with clients, and delaying decision-making at least once due (all or in part) to a team member teleworking. In contrast, 4% of teleworkers reported delaying meetings; teleworkers did not report encountering any of the other challenges in conducting their daily work duties.



**Figure 1.** Change in supervisor's endorsement of teleworking strategy

Forty-five percent of supervisors indicated a positive change in their attitude towards teleworking as a result of the pilot. Non-teleworking team members' (n=7) engagement with the concept of teleworking increased by 28 percentage points during the TW pilot, with 100% of team members surveyed holding a positive

Based on these and other data from the pilot, the following recommendations were made to senior staff to formulate the Division's future telework policy.

#### *Gauging stakeholder attitudes*

- Continue to improve stakeholder attitudes, especially those in management, by encouraging supervisors to TW and by drafting clear telework plans with employees

#### *Perceptions of teleworkers' work characteristics*

- Supervisors should establish clear expectations of when tasks must be completed.
- Establish alternatives to face-to-face meetings.

#### *Logistics*

- Clarify policy on equipment input from Division and the resources available for teleworkers.
- Encourage open communication between teleworker(s), supervisor, and non-teleworker(s) on all tasks affected by teleworking.

—Reported by Lakshmy Menon, MPH  
Div of TB Elimination

### **Developing a Joint Agenda for 2009–2010 on Program Collaboration & Service Integration: Accelerating Implementation**

In 2007, the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP) set Program Collaboration and Service Integration (PCSI) as a cross-cutting programmatic imperative. PCSI is focused on improving *collaboration* between HIV, STD, TB, and viral hepatitis programs to *integrate* the delivery of services for patients in these programs.

On April 24, 2009, NCHHSTP staff and partners held a meeting in Washington, DC, at the National Alliance of State and Territorial AIDS Directors (NASTAD) headquarters focusing on reviewing current and past efforts related to PCSI and joint planning for the future. Included in the meeting were representatives from the Association of State & Territorial Health Officials, the National Coalition of STD Directors, the National Alliance of State and Territorial AIDS Directors, the National Association of Community Health Centers, the Association of Public Health Laboratories, the National Association of City & County Health Officials, the Urban Coalition of HIV AIDS Prevention Services, state departments of public health, CDC-funded training centers, and NCHHSTP staff.

In attendance for TB were representatives from the National TB Controllers Association (Jim Cobb, Carol Pozsik, and Kim Field), a representative from the TB Regional Training and Medical Consultation Centers (Lee Reichman), and staff from DTBE (Kashef Ijaz and Wanda Walton).

Specifically, the purpose of the meeting was to

- Exchange updates on PCSI accomplishments in 2008 and proposed plans for 2009–2010;
- Develop a collaborative PCSI agenda for 2009–2010; and
- Obtain input from partners on a PCSI evaluation plan.

After the meeting, Gustavo Aquino, NCHHSTP Associate Director for Program Integration, stated, "The ideas and inquiries provided during the meeting will help to inform our joint plans, and strengthen future PCSI activities aimed at enhancing our prevention programs and integrated services. We will be reviewing and sharing the meeting notes, and will continue

working closely with you in developing joint plans and next steps for moving forward.”

For additional information, including updated reports on activities, please see the NCHHSTP Program Collaboration & Service Integration website:

<http://www.cdc.gov/nchhstp/programintegration/>

—Reported by Wanda Walton, PhD  
Div of TB Elimination

## TB EDUCATION AND TRAINING NETWORK UPDATES

### TB ETN Member Highlight



Phil Griffin is the TB Controller for the Kansas Department of Health and Environment. He received his Associate of Business Administration degree from Middle Georgia College, his Bachelor of Business

Administration degree from Wichita State University, and his Certificate of Public Management from University of Kansas.

Phil's job responsibilities include providing overall TB program management; conducting TB surveillance for the state; serving as TB Education and Training focal point (developing annual training plans, evaluating education, conducting educational needs assessments, conducting trainings, coordinating training with outside presenters, and planning and implementing annual World TB Day activities); writing and reporting on the CDC TB Cooperative Agreement; managing contact investigation reporting; providing direct assistance with surge capacity needs; and developing budgets.

Phil was introduced to TB ETN at his job orientation and through notices from CDC. He joined TB ETN to become part of an important network of educators who share ideas, learn from the experience of others, and contribute to the growing process of TB education. In the next couple of years, Phil would like to see TB ETN continue its growth in the quality and value of the annual TB ETN conference, with an emphasis on training and use of the new tools being developed and delivered to the field. “This will require increased collaboration with the evaluation, genotype, and laboratory functions of programs,” Phil stated.

Most recently, Phil has been the leader for two upcoming seminars on general TB treatment and program management as part of World TB Day events. He developed a cohort review training course that was presented with an outside expert, followed by a statewide roll-out of cohort review in April 2009. He hosted a regional training for program managers in collaboration with the Heartland National Tuberculosis Center, one of the four TB Regional Training and Medical Consultation Centers (RTMCCs) funded by CDC. He is also working on the development of a mini-fellowship for program managers. Phil is also the primary author of the contact investigation course used regionwide by the Heartland National Tuberculosis Center.

In addition to Phil's regular job responsibilities, he is the president of the National TB Controllers Association. He also serves on the planning committee for the National TB Conference, the Advisory Board for the Heartland National Tuberculosis Center, the advisory committee for the new TBESC proposal, and the steering committee for the TB evaluation group. He also serves as a liaison member to the Advisory Council for the Elimination of TB.

In his leisure time, Phil loves to cook and finds cooking to be a major stress reliever. He has a collection of approximately 600 cookbooks, but he rarely uses a real recipe. He reads cookbooks

to get an idea and then creates his own unique recipe. "I am also a dog lover; and I also enjoy spending time in the summer with friends around my pool. My volunteer work generally revolves around church activities and AIDS support work," Phil explained.

If you'd like to join Phil 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](mailto: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, go to [www.cdc.gov/tb/TBETN.htm](http://www.cdc.gov/tb/TBETN.htm)

—Reported by Regina Bess  
Div of TB Elimination

### **International Council of Nurses and Eli Lilly and Co. Multidrug-Resistant TB Project**

In 2003, the International Council of Nurses (ICN), a federation of national nursing associations representing nurses in 133 countries, began a partnership with the pharmaceutical company Eli Lilly to strengthen the capacity of nurses working in countries with a high burden of TB and MDR TB.

The main activities of the project consist of seminars that equip future nurse trainers with information on the clinical aspects of TB control, case management, best practices for patient care, and the principles of adult learning. The curriculum and materials were developed by ICN with input from experts from CDC, Partners in Health (PIH), the World Health Organization (WHO), and other organizations. The materials are accredited for nursing continuing education credits and, as of this writing, have been translated into Portuguese and Russian. Each nurse receives copies of all the materials in hard copy and on CD-ROM.

So far, more than 500 nurses in 10 countries (South Africa, Russia, Philippines, Malawi, Swaziland, Lesotho, Zambia, Kenya, Uganda, and Mozambique) have graduated from the ICN program and been trained to train other nurses in the prevention, control and treatment of TB and MDR TB. Each graduate of the program commits to training a minimum of 10 nurses and 10 allied health personnel in their home country. The national nurses' association from each of these countries is committed to engaging other partner organizations to support and monitor this training. To date, over 4500 nurses and allied health workers have benefited from the program.

In addition to the training, the project aims to recognize best practice; since 2007, the ICN-Lilly partnership has presented an annual award to one nurse in each country included in the program for nursing excellence in TB/MDR TB. The award consists of a specially designed medal and an educational grant, so the nurse can continue professional development in TB.

Included in the course training materials associated are the ICN's TB Guidelines, which attempt to improve upon the inconsistent TB-related information that many nurses receive during their initial training. The second edition versions of these guidelines were published in 2008 and are available from the ICN's web-based "Global TB/MDR TB Resource Centre." This resource center was established in March 2005 and makes information about TB and MDR TB available to nurses worldwide. It contains copies of and links to the latest resource material on TB and drug-resistant TB and is continuously updated.

For more information on the project, please take a look at the ICN's "Global TB/MDR TB Resource Centre" at <http://www.icn.ch/tb/index.html>.

—Submitted by Carolyn Bargman, RN  
TB Education and Training Network, and  
Gini Williams, ICN Project Director

## Cultural Competency Workgroup Update

In October 2008, the Cultural Competency Workgroup had its first cultural competency-related article review. Each month since then, the workgroup has reviewed a research article on cultural competency, followed by a conference call discussion about the article. In addition, the group has reviewed and discussed one or more cultural competency resources. Below are summaries from October, November, and December.

### *Cultural Competency Research*

Following is a summary of the article, "Tuberculosis from *Mycobacterium bovis* in binational communities, United States." Authors: TC Rodwell, M Moore, KS Moser, SK Brodine, and SA Strathdee. *Emerging Infectious Diseases* 2008 June.

In San Diego County, California, between 1994 and 2005, *M. bovis* was identified in 6% of adults with culture-positive TB and 45% of patients under 15 years of age with culture-positive TB. This form of TB is mostly transmitted through consumption of unpasteurized milk and cheese products, not person to person. These products are generally brought from Mexico for personal use, but illegal sales of these products do occur. Because *M. bovis* is almost universally resistant to pyrazinamide (PZA), treatment time increases to 9 months. Clinicians need to have a heightened suspicion of *M. bovis* for individuals considered to be at high risk, i.e., those living in communities with close ties to Mexico (e.g., San Diego) and who consume unpasteurized dairy products. In addition, clinicians may want to consider empiric extended TB treatment for at-risk children without culture-positive disease. The mortality rate for *M. bovis* is almost two times higher than for *M. tuberculosis*; HIV further increases the risk of mortality to four and a half times that of *M. tuberculosis*.

The following is a summary of the article, "Syndemics and public health: reconceptualizing disease in a bio-social context." Authors: M Singer and S Clair. *Medical Anthropology Quarterly* 2003;17 (4): 423-441.

The term *syndemics* refers to two or more epidemics interacting synergistically and contributing to excess burden of disease in a population. It also refers to social conditions (e.g., lower income, homelessness, political violence), in addition to physical disease. Certainly, the concept has implications for TB because of the co-morbidities that often occur with TB, such as diabetes, HIV, and malnutrition. In addition, social conditions such as homelessness, alcoholism, and incarceration are often strongly associated with TB. The article also pointed out that stigma and discrimination contribute to disease. Following the review, discussion took place on how the concept of syndemics can be incorporated into TB control. For example, we can use the concept to address social conditions, refer patients to social workers and social services, and advocate for efforts that emphasize the necessity of social services to improve health outcomes.

The following is a summary of, "Displacement and disease: the Shan exodus and infectious disease implications for Thailand." Author: Voravit Suwanvanichkij. *Conflict and Health* 2008, 2:4.

The Shan are an ethnic minority from Burma whose members have been forced to flee to Thailand because of abuses by the Burmese government. These abuses include torture, rape, extrajudicial executions, and Shan homelands being overtaken by Burmese soldiers. In addition, the Burmese government's mismanagement of the economy has forced many into severe poverty. In Thailand, the Shan are denied refugee status and labeled "economic migrants"; thus, many are forced to work in exploitative conditions, such as prostitution. The Shan lack access to basic health care services, and there

are very little data available on the health of this ethnic group. The limited data on the Shan indicate that they have a disproportionately high burden of TB, HIV, and lymphatic filariasis, among other infectious diseases. The failure to address the root causes of the Shan's migration from Burma, and the barriers to health care access by undocumented migrants (Shan and others), are undermining progress that the Thai public health system has made in controlling infectious diseases.

#### *Cultural Competency Resources*

- *Forging Partnerships to Eliminate TB: A Guide and Toolkit*, CDC, 2007. This document contains specific recommendations for cultural competence. At the end of the book there is a toolkit containing checklists for linguistic competency, an organizational cultural competency assessment, and a sample letter for community leaders.
- Summary of State Law Requirements Addressing Language Needs in Health Care (<http://www.healthlaw.org/library/item.174993>). This resource provides a summary of laws for each state regarding what health providers are required to provide for people with limited English proficiency. This is an important resource, because many providers do not know what they are legally obligated to offer their clients, and conversely, what the limited English–proficient patient is entitled to receive from the health care provider.
- Center for Applied Linguistics. [www.cal.org](http://www.cal.org). This site includes general information on refugees from Iraq, including the cultural orientation that's provided to them before placement in the United States. It also includes language phrasebooks and cultural orientation information ([www.cal.org/co](http://www.cal.org/co)). Not all of the information is health related, but many cultures are represented.

- United Spinal Association: Disability Etiquette: Tips on Interacting with People with Disabilities ([www.unitedspinal.org/pdf/DisabilityEtiquette.pdf](http://www.unitedspinal.org/pdf/DisabilityEtiquette.pdf)). This document provides tips for interacting with individuals with various disabilities (e.g., blind, deaf, short stature, cerebral palsy, hidden disabilities). The booklet is easy to read and has cartoon scenarios throughout.

—Submitted by Rachel Purcell, MPH  
Florida Department of Health

### **TBETN's Ask the Experts**

This feature is brought to you by the TB ETN Membership Development Workgroup.

#### Question:

The thought of having to give a presentation or facilitate an education session makes my heart skip a beat! I don't know if it's because I'm excited about the opportunity, or dreading it. Do you have suggestions for how to make it less daunting?

#### Answer:

No matter which explanation rings true for you, here are a few tips to help make your next presentation a success.

#### *Tips for Effective Presentations*

- *Know your subject.* If you know what you are talking about, you will feel more confident, and if you feel more confident, your presentation will be better. It's as simple as that. Research your topic to ensure you have accurate, up-to-date information.
- *Know your audience.* The more you know about your audience and what they hope to learn, the better position you will be in to target the session to their needs. Use language and terminology that your audience can relate to and understand.

- *Give the kind of presentation you like to attend.* We've all sat through bad ones, but hopefully a few good ones, too. Think about what made the good ones good and the better ones better. Incorporate these strategies into your presentation.
- *Less is more.* Most presenters try to pack too much information into their sessions, exceeding the time available and the audience's ability to absorb it all. Focus on practical, easy-to-remember information in an amount that can easily be absorbed in one sitting, typically not more than three key points.
- *Be prepared.* Practice may not make your session perfect, but it will build your confidence. Run through your presentation from start to finish several times before the big day. Test all audiovisual materials and equipment, and have everything ready before the audience arrives. Try to anticipate tough questions and have your answers ready.
- *Always have a Plan B.* Expect the unexpected. If you are relying on computers, the Internet, or projectors to give your presentation, have handouts or slides ready as a back-up. Bring two copies of any electronic files you'll need (preferably in different formats). Have screen-captures of key websites ready in case your Internet connection goes down or is painfully slow.
- *Make sure the audience can hear and see you, and that you can hear and see them.* There are few things more frustrating than not being able to hear or see what is being presented. Stand. Use a microphone if you have a soft voice. Use fonts and graphics that are large and clear enough to be seen. Arrange the room so that everyone can see your face, and avoid the temptation to turn your back on the audience and read from your slides. Make eye contact frequently; audience members are less likely to talk amongst themselves, check e-mail, or fall asleep when the speaker is looking directly at them! Observe your audience for body language and other clues to how they are doing. Yawning, stretching, and fidgeting may suggest it is time to take a short break.
- *Tell a story.* Whenever possible, personalize the information you are giving by putting it into a real-world context, preferably one that involves you. Your audience will relate to this much better than to cold, dry facts.
- *No matter what happens, keep breathing.* Fear of public speaking is a major cause of anxiety for most people - including even the most experienced speakers! Slow down and keep breathing; it helps. Wear comfortable clothing that makes you feel good. Move around to release tension. Believe in yourself. The audience is there because they think you have something valuable to say. You do not have to be perfect to succeed.
- *Deliver what you promise.* Choose the title of your session wisely. People will come with expectations based on how the session is advertised and will leave frustrated and disappointed if you do not meet their expectations.
- *Respect your audiences' expertise and experience.* You have as much to learn from them as they do from you. Talk to them, invite questions, ask them questions ... engage them to participate.
- *Do not take yourself or the topic too seriously.* You do not have to be funny to be an effective or engaging speaker, but it helps. Use humor appropriately and judiciously. *Smile.*
- *Remain in control.* Keep difficult participants in line. Don't become flustered. Be

respectful, but firm. If there is controversy, try to find common ground. If there are concerns or questions that cannot be resolved during the session, put them on a "parking lot list" to revisit later in the session, or follow up with the individual afterward.

- *Questions?* Tell the audience at the start of the session whether you will take questions as you go along, or at the end. If there are many questions, assign numbers and answer each question in turn. Repeat the question for everyone to hear before you begin to answer it. Direct your answers to the whole audience, not just the person who asked the question. Answer the question, succinctly and clearly! Provide concrete, real-world examples if you can. If you do not know the answer, say so. Ask if someone in the audience knows the answer. If not, say that you will find out the answer for them.
- *Finish on time and on a good note.* Always be aware of the clock. Ask someone to help you stay on time. If time is running out, don't just speed up your presentation! If you are not going to be able to cover all of the material, ask the participants how they would like to use the remaining time. Recap the key points of the presentation in a summary, and remember to thank the audience for their attendance and contributions to the session.
- *Learn from every session you facilitate.* Ask for feedback from the participants, intermittently and at the end of the session. Be specific. Ask yourself what worked well and what did not. Do not get defensive; listen, learn, and move on.

Effective presentations not only inform; they engage, explain, and inspire. By taking the time to learn and practice your presentation skills, you can create and facilitate sessions that others will line up to attend.

Watch for an article in the next *TB Notes* issue that will offer strategies for developing and presenting with PowerPoint!

Do you have a question about TB education, training, and communication issues? In each edition of *TB Notes*, a TB education and training expert will answer questions about these issues and topics submitted by *TB Notes* readers. Just submit your question to [tbetn@cdc.gov](mailto:tbetn@cdc.gov). Please keep your questions as brief as possible. Please note, we reserve the right to edit questions.

## **CLINICAL AND HEALTH SYSTEMS RESEARCH BRANCH UPDATE**

### **A Brief History of the TBTC**

The Tuberculosis Trials Consortium (TBTC) is a consortium of U.S. and international TB investigators funded by CDC. It is a unique public-private sector partnership between researchers from CDC, local public health agencies, leading academic centers, and selected Veterans Administration (VA) medical centers. Current TBTC studies extend the historic role of the U.S. Public Health Service (USPHS) in TB research. We offer the following brief history of the TBTC as a reminder of the uniqueness and historical significance of this group.

Before streptomycin became available in 1946, humans lived in terror of TB because of the illness, disfiguration, and death it caused. Before publication of the first streptomycin study, controlled clinical trials in humans had never been conducted, so there was no way to compare the effect and value of an intervention or treatment with a control. There is little doubt that the discovery of a cure for TB changed human history, and that the development of controlled clinical trials has greatly benefited science and mankind.

The development of TB drug therapy was a landmark in the fight against TB. Groups such as the British Medical Research Council and the U.S. Public Health Service have studied TB medications since the discovery of streptomycin in 1944. In the early 1960s, TB treatment was recommended to last 24 months, and to require 1,460 doses of medication and hospitalization (*Tubercle* 1962, 43:201-67). Less than 20 years later in 1979, treatment had been shortened to 6 months, requiring 96 doses of medications and no hospitalization; and very importantly, it did not engender acquired drug resistance when taken as prescribed (*Am Rev Respir Dis* 1979:579-85).

CDC has had a major role in the clinical trials for TB since the PHS TB control program was transferred from the National Institutes of Health (NIH) to CDC in 1960. From then until 1988, CDC coordinated a series of multicenter clinical trials that helped to establish rifampin-based, short-course therapy as the recommended initial treatment of TB in the United States. It also conducted studies that provided the scientific basis for preventive therapy, which remains a major component of our strategy to eliminate TB.

However, with the gradual diminution of the infrastructure required for these studies, the last completed trial of that era (USPHS Study 21) was nearly terminated several times during its course for lack of adequate funding. However, with the infusion of federal support for TB control in the early 1990s and with new candidate TB drugs available, CDC re-established its commitment to study new drugs and regimens for both TB treatment and prevention with the creation of the TBTC.

TBTC initiated its first TB treatment trial in 1995. Since then, TBTC has grown to include sites on four continents and has worked with its partners to conduct a variety of phase II and III clinical trials that have enrolled more than 10,000 patients and volunteers. In the coming few years, TBTC will complete the largest TB prevention trial ever conducted: TBTC Study 26, a Phase III

trial testing the efficacy of a 3-month, once-weekly regimen of isoniazid and rifapentine, under supervised administration, for the treatment of LTBI. In addition, TBTC recently completed two Phase II studies showing that moxifloxacin is safe and effective during intensive phase treatment; enrolled approximately one half of a Phase II study of daily rifapentine during intensive phase treatment; started enrollment in a study of linezolid for multidrug-resistant TB (MDR TB); and is conducting a number of studies of the pharmacokinetics, pharmacodynamics, biomarkers, drug interactions, basic microbiology, and human subjects protection issues that are crucial elements of international TB clinical trials research.

Despite the advances in TB treatment research such as the advent of new drugs, new diagnostic tests, and new vaccine candidates for TB, challenges remain:

- TB is still a leading infectious disease (with over 9 million new cases and almost 2 million deaths per year);
- The current standard regimen must still be taken for 6 to 9 months;
- The continued spread of MDR TB threatens the control of TB globally;
- Rifampin-based TB treatment is incompatible with many current antiretroviral therapy (ARV) regimens; and
- Costs for assuring high rates of treatment adherence are rising.

Though these challenges remain, we look forward with optimism; the new drug candidates and advances in current TB clinical trial science are among the most promising we have seen. With commitment and support from DTBE, the TBTC is providing a unique resource for these clinical studies, and will continue to play an important role in improving TB treatment and prevention.

—Reported by Elsa Villarino, MD,  
and Stefan Goldberg, MD  
Div of TB Elimination

## NEW CDC PUBLICATIONS

Asghar RJ, Patlan DE, Miner MC, Rhodes HD, Solages A, Katz D, Beall DS, Ijaz K, Oeltmann JE. Limited utility of name-based tuberculosis contact investigations among persons using illicit drugs: results of an outbreak investigation. *Journal of Public Health: Bulletin of the New York Academy of Medicine*. E-pub posted online June 16, 2009.

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## PERSONNEL NOTES

Bisrat K. Abraham, MD, MPH, is joining the Surveillance, Epidemiology, and Outbreak Investigations Branch (SEOIB) as the branch's new EIS Officer. Bisrat grew up in Baltimore and attended Johns Hopkins University for her undergraduate degree. Before medical school, she served for a year as a U.S. Department of State Fulbright Fellow in Eritrea, where she worked on a research project studying the breastfeeding and weaning practices of mothers. She also visited multiple refugee and internally displaced person camps throughout the country. Bisrat obtained her MPH and MD degrees from Emory University. Most recently, she is in her last year of a 3-year residency in internal medicine at the Johns Hopkins Hospital in Baltimore.

Bruce Bradley, MPA, has joined DTBE's Field Services and Evaluation Branch as the new CDC Public Health Advisor for Fulton County, Georgia. He started his new field staff position on July 6. Bruce started his career in public health in 1990 as a Disease Intervention Specialist (DIS) outreach worker at the North Central Health District in Macon, Georgia. In 1993, he moved to Rome, Georgia, to become a Regional Outreach Coordinator with the State TB Control Program. In that position, Bruce was responsible for implementing DOT in 52 counties throughout the state in addition to evaluating the programs and providing training for DIS staff in the region. After several years as a regional coordinator, he was assigned to the Fulton County TB Control Program as a supervisor, where he supervised and trained 13 DIS staff. In 1998, Bruce took the position of Health Coordinator with the Fulton County Department of Health and Wellness, Adolescent Health Program, where he managed the day-to-day operations of seven health centers, including all outreach activities.

In 2002 Bruce joined CDC/DTBE as a Public Health Analyst in the Data Management and Statistics Branch, where he created weekly exports of incoming TIMS data. He also served as the TIMS trainer, the technical contact for the CITS II contract, and the TB subject matter expert for the development and design of the TB Program Area Module (TB PAM) and the eRVCT. In addition, he has been assisting states with the TIMS-to-NEDSS transition. Bruce has a masters degree in Public Administration from Georgia College and State University and a graduate certificate in epidemiology from the Tulane School of Public Health and Tropical Medicine. He is also in the process of completing his MPH degree at Georgia State University.

Emily Bloss, PhD, has joined the staff of DTBE's International Research and Programs Branch as an Epidemiologist. She has been with the branch as an Epidemic Intelligence Service (EIS) Officer since July 2007. As an EIS officer, she conducted epidemiologic research, monitoring

and evaluation, and public health surveillance to inform policy and strengthen TB control efforts. She has worked on a variety of international TB epidemiologic research and program-building projects in Botswana, Peru, Thailand, and Vietnam. Within the United States, she has worked in Mississippi on a TB outbreak investigation and has conducted epidemiologic analyses using the National TB Surveillance System. Prior to joining the EIS program, Emily received a BA from the University of Notre Dame, and an MA in Anthropology and an MPH in Epidemiology and Biostatistics from the University of Illinois in Chicago. She completed her PhD in International Health and Development at Tulane University's School of Public Health and Tropical Medicine. Emily's dissertation focused on gendered TB risk factors among nomadic populations in northern Kenya. Before joining CDC, Emily worked with several international and community-based nongovernmental organizations (NGOs) in Kenya, Sri Lanka, and Nicaragua conducting operational and epidemiologic research.

Eleanor S. Click, MD, PhD, is joining the International Research and Programs Branch (IRPB) as an EIS officer. Ellie is a graduate of Wellesley College and the Stanford University School of Medicine. She trained in pediatrics at the University of Washington in Seattle and holds a PhD in genetics from Stanford University. While serving as a Pediatric AIDS Corps physician with the Baylor College of Medicine International Pediatric AIDS Initiative in Malawi from July 2006 through December 2008, she worked to develop an "Outreach Toolkit" for on-site clinical mentorship in pediatric HIV care in resource-limited settings. Ellie was co-recipient of the Ann E. Dyson Award for Child Advocacy from the American Academy of Pediatrics in 2004 for helping establish a sustainable pediatric resident-run international medical project in El Salvador. She has worked in Thailand, Papua New Guinea, India, El Salvador, and Malawi.

Sha Juan Colbert, PhD, has joined DTBE's Communications, Education, and Behavioral Studies Branch as a Behavioral Scientist. Dr. Colbert received an MPH degree from Emory University (2001) in Behavioral Science and Health Education, and a PhD in Public Health (December 2008) from Michigan State University, focusing on Health Behavior and Health Education. From 2001 to 2005, Dr. Colbert worked with the Michigan Department of Community Health's HIV/AIDS surveillance unit, where she served as the Project Study Coordinator on CDC-funded projects that included research with HIV-infected persons or persons in HIV behavioral risk groups (including injection drug uses). She also served as the HIV Behavioral Surveillance Coordinator for the Michigan Department of Community Health's HIV/AIDS Epidemiology Unit. While working as a doctoral student at the University of Michigan School of Public Health, she was a member of a multidisciplinary group of researchers funded to focus on the behavioral, genetic, and biological markers of cardiovascular disease and mental health disorders, which also included exploring pathways of other prominent health disparities. Since completing her doctorate, she has worked as an independent public health consultant.

Beverly DeVoe-Payton has joined the Clinical and Health Systems Research Branch (CHSRB) as the new Deputy Branch Chief. Beverly joins the branch after 14 years in the Field Services and Evaluation Branch (FSEB). Beverly began her public health career in 1987 when she was assigned to the Florida Department of Health as an outreach worker in the migrant community of Immokalee. A promotion to District TB Program Manager relocated her to Tallahassee, where from 1989 to 1992 she managed the TB program for the Florida Panhandle area. She then served from 1992 to 1995 as outreach coordinator for the Fulton County (Georgia) Department of Health and Wellness TB Program. From 1995 until this year, Beverly was Director of the Georgia TB Program. Under her leadership, Georgia's state TB program changed from a

centralized care model to a decentralized, community-based care approach. In 1995, Georgia implemented a housing program for homeless TB patients in collaboration with the American Lung Association of the Southeast Region. The program has become a national model for the provision of housing, incentives, and enablers to ensure TB treatment completion in this high-risk population group. TB completion rates are greater than 90% among those served in this homeless program. Also in 1995, DOT was implemented as the standard of care throughout Georgia, whereupon the rate of completion of treatment increased from less than 80% to 92% in 2007; annual TB morbidity decreased 48%, from a peak of 909 cases in 1991, to 475 in 2008. During this time, Beverly has also had temporary duty assignments in Wichita, KS, and Memphis, TN, where she helped lead investigations of TB outbreaks among high-risk groups. Beverly has provided outstanding leadership to the Georgia TB program. We are delighted that she has joined CHSRB, where her strong management skills and extensive programmatic experience will prove invaluable in facilitating the branch's research mission.

LCDR Juliana Grant, MD, MPH, U.S. Public Health Service, is moving from Alaska to join the Outbreak Investigations Team in SEOIB, with a start date of July 20. For the past 2 years, she has served as Alaska's ATSDR Regional Representative working on environmental health around hazardous waste sites. She grew up in New York City and attended the University of Michigan as an undergraduate. After college, she spent a year at CDC in Fort Collins as an Emerging Infectious Disease Laboratory Training Fellow, where she worked on arbovirus transmission and testing. Juliana went to medical school at the University of Colorado Health Sciences Center and completed an internship in Internal Medicine before moving to San Diego for a residency in Preventive Medicine. While in San Diego, Juliana received an MPH in epidemiology from San Diego State University and worked with

the county health department on the then-emerging issue of community-associated MRSA. After residency, Juliana joined the 2005 EIS class and worked on a variety of projects including infectious and chronic disease and environmental health while assigned to the Utah Department of Health. After EIS, Juliana took her most recent position with ATSDR. Juliana and her husband Dan are both looking forward to being someplace where year-round bike commuting doesn't involve studded snow tires.

Heather Alexander Konopka, PhD, has joined the staff of DTBE's International Research and Programs Branch as a Microbiologist. She has been working with the branch as an ORISE/CDC Foundation Fellow and then as a Senior Service Fellow since 2005. Prior to coming to CDC, Heather earned a PhD in Microbiology and Molecular Genetics from Emory University, and served as an HHS Emerging Leaders Program fellow, completing global health, TB, and diagnostics-related rotational assignments at FDA, NIH, CDC, and the Foundation for the NIH. As a member of the MDR TB team within IRPB, she works on a variety of laboratory-strengthening activities, spending a large portion of her time collaborating with the Foundation for Innovative New Diagnostics (FIND) and overseeing the implementation and evaluation of new TB diagnostic assays in high-burden settings. Currently, she is also pursuing an MPH in Epidemiology at Emory University.

Romel Lacson, MPH, has joined DTBE's Communications, Education, and Behavioral Studies Branch as a Lead Behavioral Scientist. Romel has a Master of Public Health (MPH) degree in Health Promotion, Education, and Behavior (1996) from the University of South Carolina (USC), and is a candidate for a Doctor of Philosophy (PhD) in Anthropology focusing on Medical Anthropology (expected date of completion is fall 2009 from USC). From 1997 to 1999, Romel was an HIV/AIDS Health Education Consultant with the South Carolina Department of Health and Environmental Control (SC DHEC)

which included development and implementation of evaluation guidance for eight regional HIV prevention community coalitions and 13 SC local health district HIV/AIDS education programs. From 1999 to 2005, Romel was a Behavioral Scientist in CDC's Division of HIV/AIDS Prevention, Program Evaluation Branch, Intervention Research Team, where he coordinated and monitored activities of HIV/AIDS evaluation projects and studies. Since 2005, Romel has worked to develop and manage the *Amaya Lacson TB Photovoice Project* to empower TB-affected communities by creating opportunities for them to contribute to a world free of suffering due to TB and poverty through the use of Photovoice.

Adam J. Langer, DVM, MPH, DACVPM, joined the Outbreak Investigations Team in SEOIB on Monday, July 6. Adam was born and raised in Baltimore and completed a BS in biology from Virginia Tech in 1997. After spending a summer reading Laurie Garrett's *A Coming Plague*, Adam was inspired to pursue a career in public health. He then attended veterinary school at Oklahoma State University, earning his DVM degree in 2001 and gaining his first taste of work at CDC through the Veterinary Student Elective program. Adam returned home to Baltimore and entered full-time small animal family and emergency/critical care practice for 5 years, during which he attended Johns Hopkins University part-time, completing his MPH in 2005. Adam then joined the 2006 EIS class and was assigned to the New Jersey Department of Health and Senior Services, where he investigated a variety of infectious diseases problems throughout the state for 2 years. Following EIS, Adam was accepted to CDC's Preventive Medicine Fellowship and was reassigned to the Enteric Diseases Epidemiology Branch, in the National Center for Zoonotic, Vector-Borne, and Enteric Diseases, for a 1-year practicum where he has pursued several projects related to health policy and management. During the past year, Adam also passed the certifying examination of the American College of Veterinary Preventive Medicine. Adam is

engaged to Amy Blumensaadt, a native Atlantan, and they live near Chamblee with their two dogs and two cats.

Linda Leary has been selected as the new Public Health Advisor in the Field Services and Evaluation Branch (FSEB). Linda is filling Rita Varga's old position as the FSEB liaison for the field staff. She officially begins her new assignment on July 19, 2009. Linda started her federal career in 1969 in Washington, DC, performing secretarial duties. In Washington, she worked for GSA, NASA, and ACTION (formerly Peace Corps and VISTA). Linda traveled to Atlanta to accept a position as personal assistant to the Regional Director of ACTION at the Atlanta Regional Office. Eventually, Linda left ACTION and found her way to CDC to work for the Branch Chief of the Metabolic Biochemistry Branch, NCEH. In 1983, Linda discovered the Division of Tuberculosis and worked as a health technician and data manager on various research projects. The majority of Linda's tenure in tuberculosis involved administrative, data management, and consultation with state and local partners. In 1990, Linda left TB to accept a position in the Special Studies Section, Surveillance Branch, Division of HIV/AIDS, as data manager, only to return to TB in 1993 to work in FSEB. She has been working as Public Health Analyst with the Program Evaluation Team and has been responsible for the management of ARPE data, qualitative evaluations, coordinating meetings and conferences, working with TB Program Evaluation Network (formerly Evaluation Work Group) and various data management projects. Linda has an Associate degree as Executive Private Secretary from Strayer College, Washington, DC, an Associate degree in business administration from Atlanta Junior College, and a Bachelor's degree in business administration from Georgia State University.

Nicole Olson has joined the Surveillance, Epidemiology, and Outbreak Investigations Branch as an Epidemiologist Assistant summer

student. She is currently in the process of obtaining an MPH degree in epidemiology from Emory University and previously earned a BA degree in anthropology/sociology from Knox College. During the last school year, she held a work-study position in the Health Services Research and Evaluation Branch in CDC's Division of STD Prevention, working on research investigating the relationship between certain drugs and STDs within a group of privately insured men.

Neha Shah MD, MPH, has joined DTBE's Field Services and Evaluation Branch as a Field Medical Officer assigned to the Chicago TB program. She has been with the CDC's Global AIDS Program (GAP) as an Epidemic Intelligence Service (EIS) Officer since July 2007. Prior to joining EIS, Dr. Shah received her MPH from Johns Hopkins University in international health and her MD from New York Medical College. She completed her internal medicine residency at Boston University with their primary care program. As an EIS officer, she conducted epidemiologic research, monitoring and evaluation, and public health surveillance to inform policy and strengthen HIV and TB/HIV control efforts. She has worked in a variety of international settings including Thailand, Vietnam, El Salvador and China and domestically with the Washington DC and Cleveland Departments of Health on HIV and STD-related projects. She has also worked with the Guatemala Ministry of Health to help initiate and strengthen their TB/HIV surveillance. Before joining CDC, Neha worked with the American Lung Association domestically in Chicago, as well as internationally in Nigeria conducting malaria research, and in Guatemala and India providing clinical care to underserved populations.

Erika Sigman has joined the MLB Applied Research team as an ORISE Fellow. Erika has been assigned to the Genotyping Activity where she performs molecular screening to determine the relation of human genetic factors to TB

pathogenesis. She received her BS degree in Biology from Emory University in 2008 and will begin to pursue her MS degree in Biology at Georgia Tech in the fall. Erika devotes much of her spare time as a volunteer at the Wesley Woods Geriatrics Hospital and the Atlanta Children's Center.

Frances Tyrrell, MPH, has joined the staff of the Mycobacteriology Laboratory Branch (MLB) as a Microbiologist on the Reference Laboratory Team. She will be tasked with developing TB training programs as part of the Laboratory Capacity Building Activity. In her previous position, she served as Sentinel Laboratory Program Advisor for the Georgia Public Health Laboratory, where she expanded and evaluated laboratory capacity within Georgia to improve the response to potential bioterrorism events. Frances has a strong clinical background with TB, previously holding the position of Clinical Laboratory Scientist for the Georgia Public Health Laboratory. She has also served as a Medical Technologist for the Hospital Consolidated Laboratories-Providence Hospital in Southfield, Michigan. She received her MPH degree in 2006 from Wayne State University in Detroit, Michigan.

Bethany Wexler, MPH, has joined the Surveillance, Epidemiology, and Outbreak Investigations Branch as an Epidemiologist Assistant summer student. She recently completed her first year in the doctoral program at the UCLA School of Public Health, specializing in Community Health Sciences and Demography. Bethany received her MPH from Emory's Rollins School of Public Health. She has worked as a graduate researcher at the HOPE Clinic HIV Vaccine Trials Network, and on the Folic Acid Team in the National Center for Birth Defects and Developmental Disabilities with CDC. During the school year, she works on a project with her advisor using the NHANES database to look at allostatic load and menopausal women.

Jamie White is also a student working as an Epidemiologist Assistant this summer with the Surveillance, Epidemiology, and Outbreak Investigations Branch. She is presently in the MPH epidemiology program at Emory's Rollins School of Public Health and earned a BA in Physical Anthropology from the University of California, Santa Barbara. During the past school year, she held a Research Assistant position with the Emory University Genetics New Born Screening and Metabolic Nutrition Program. She is currently conducting research for her thesis on reproductive and respiratory health outcomes in male occupational glass blowers.

Matthew Willis, MD, is joining IRPB as an EIS officer. Matt is an internist coming from the Navajo Area Indian Health Service, where he has been working the past 4 years. Matt grew up in the San Francisco Bay Area. After high school he raced bicycles internationally for 6 years before entering Brown University to major in medical anthropology. Before starting medical school at Temple in 1996, Matt spent a year volunteering in health care settings in South Africa and Kenya, where he confirmed an interest in global health. This led him to the Harvard School of Public Health, where he earned his MPH in 2000. A medical student rotation at CDC under Anne Schuchat in 2001 planted the EIS seed. After internship, residency, and a chief year in internal medicine at Cambridge Hospital, Matt moved to the Navajo Area, where he has been working as Director of Ambulatory Care at Fort Defiance Hospital, Navajo Area, since 2007.

## CALENDAR OF EVENTS

July 22–23, 2009  
**15th Semi-Annual TBESC Meeting**  
 Boston, MA  
 Division of TB Elimination (DTBE)

July 27–30, 2009  
**Annual TB Program Evaluation Network Conference** (Joint meeting with TB ETN)

Westin Atlanta North at Perimeter  
Atlanta, GA  
E-mail: [tbpen@cdc.gov](mailto:tbpen@cdc.gov)

July 28–30, 2009  
**TB Education and Training Network  
Conference**  
Atlanta, GA  
Division of TB Elimination (DTBE)  
[www.cdc.gov/tb/education/Tbetn/conference.htm](http://www.cdc.gov/tb/education/Tbetn/conference.htm)

August 18, 2009  
**Federal TB Task Force Meeting**  
Washington, DC  
Division of TB Elimination (DTBE)

August 23–26, 2009  
**2009 National HIV Prevention Conference**  
Atlanta, GA  
Convened by CDC  
[www.2009nhpc.org/](http://www.2009nhpc.org/)

August 30–Sept. 3, 2009  
**Public Health Information Network (PHIN)  
Conference**  
Atlanta, GA  
CDC & the National Association of County and  
City Health Officials (NACCHO)  
[www.cdc.gov/phinconference/2009/about\\_conference/index.htm](http://www.cdc.gov/phinconference/2009/about_conference/index.htm)

Sept. 12–15, 2009  
**49th ICAAC Meeting**  
San Francisco, CA  
American Society for Microbiology (ASM -  
ICCAC)  
[www.icaac.org/](http://www.icaac.org/)

Oct. 7–9, 2009  
**Midwest TB Controllers Conference**  
Bismarck, ND  
Division of TB Elimination (DTBE)

Oct. 12–16, 2009  
**Pacific Island Tuberculosis Controllers  
Association (PITCA) Meeting**

Guam  
Division of TB Elimination (DTBE)

Oct. 21–22, 2009  
**TBTC Meeting**  
Atlanta, GA  
Division of TB Elimination (DTBE)  
[www.cdc.gov/tb/topic/research/tbtc/default.htm](http://www.cdc.gov/tb/topic/research/tbtc/default.htm)

October 21–24, 2009  
**The Denver TB Course**  
Denver, CO  
National Jewish Health  
[www.nationaljewish.org/education/pro-ed/events/tb-course.aspx](http://www.nationaljewish.org/education/pro-ed/events/tb-course.aspx)

Oct. 26, 2009  
**Southwest TB Controllers Meeting**  
Durango, CO  
Division of TB Elimination (DTBE)

Oct. 27–28, 2009  
**Four Corners Meeting**  
Durango, CO  
Division of TB Elimination (DTBE)

Oct. 31–Nov. 5, 2009  
**Chest 2009**  
San Diego, CA  
American College of Chest Physicians  
[www.chestnet.org/CHEST/program/about09.php](http://www.chestnet.org/CHEST/program/about09.php)

Nov. 7–11, 2009  
**137<sup>th</sup> APHA Annual Meeting**  
Philadelphia, PA  
American Public Health Association  
[www.apha.org/meetings/](http://www.apha.org/meetings/)

Dec. 3–7, 2009  
**40<sup>th</sup> UNION World Conference on Lung Health**  
Cancun, Mexico  
IUATLD  
[www.worldlunghealth.org/Conf2009/website/](http://www.worldlunghealth.org/Conf2009/website/)