



Centers for Disease Control  
and Prevention (CDC)  
Atlanta GA 30333  
TB Notes  
No. 4, 2014

Dear Colleague:

Looking back over the changes and developments of 2014, I would like to thank the staff of CDC's Division of Tuberculosis Elimination (DTBE) and our partners in public health for everyone's collective efforts in closing out the year with satisfaction and pride. We have weathered a number of significant changes this past year or two. As you recall, it was a year ago, on December 31, 2013, that Dr. Ken Castro announced his decision to vacate the position of Director of DTBE. Dr. Castro was the Director of DTBE for 20 years, and his departure was unanticipated. Fortunately, a number of our well-qualified staff have been serving in acting capacities, allowing the Division to remain very productive. A round-up of the Division's accomplishments and major activities of the year include the following:

When colleagues in state and local TB control programs struggled with shortages of drugs and diagnostics, DTBE staff developed and published reports in CDC's Health Alert Network (HAN) and in the *MMWR* that provided guidance and interim recommendations. DTBE staff members continue to be involved in this challenging issue, because drugs and diagnostics remain vulnerable to supply interruptions.

On March 18, CDC's Public Health Grand Rounds focused on multidrug-resistant (MDR) TB. This session included presentations by Sarita Shah of DTBE's International Research and Programs Branch (IRPB) and Tom Shinnick, Associate Director for Global Laboratory Activities, in addition to two speakers from outside DTBE. Dr. Dalene van Delft, a survivor of MDR TB, was there to share her experiences. Also, the March 21 edition of the *MMWR* included its annual article on preliminary U.S. TB surveillance data for 2013. Later in October, the final surveillance report for 2013 indicated a total of 9,582 incident TB cases, reflecting our continued success in combatting TB.

In May, CDC held its annual honor awards ceremony. The Antibiotic Resistance Threat Report team, a group that included several DTBE staff, won the Excellence in Communication award. Kudos to the recipients of that award!

In August, DTBE welcomed three new EIS officers. Godwin Mindra joined the Surveillance, Epidemiology, and Outbreak Investigations Branch, and the International Research and Programs Branch welcomed Hannah Kirking and Colleen Scott.

We have also had several retirements this year. Long-time DTBE senior staff who left CDC included Jose Becerra, Chief of the Data Management and Statistics Branch (DMSB); Lorna Bozeman, Data Management Team Lead in the Clinical Research

Branch (CRB); Ken Castro, former Director, DTBE; Beverley DeVoe-Payton, Deputy Chief of CRB; and Bonnie Plikaytis, Acting Chief of the Laboratory Branch (LB).

In December we also say farewell to two long-time DTBE staff who have contributed a great deal to DTBE and worked in collaboration with many of you. Cheryl Tryon and Ann Lanner of DTBE's Communications, Education, and Behavioral Studies Branch are both retiring at the end of this year. Cheryl, a Health Education Specialist, has worked on several award-winning projects and has helped make many of DTBE's educational products and training courses expertly organized and formatted so as to maximize user access and understanding. Ann, a Public Health Analyst, has served in a variety of editorial and communications projects, including serving as Managing Editor of TB Notes since 1995. Owing to her retirement, the next issue of TB Notes will be delayed somewhat. Please see the Personnel Notes section for these and many other items of staff news.

Philip LoBue, MD, FACP, FCCP  
Director  
Division of Tuberculosis Elimination  
National Center for HIV/AIDS, Viral  
Hepatitis, STD, and TB Prevention

## In This Issue

Highlights from State and Local Programs .....	4
2014–2015 NTCA Board .....	4
Review of Work by the NTCA Survey Committee .....	5
2014 Watsonian Society Banquet .....	7
TB Education and Training Network (TB ETN) Updates .....	9
2014 TB ETN Conference .....	9
TB Program Evaluation Network (TB PEN) Updates .....	11
5 <sup>th</sup> TB PEN Conference and Program Evaluation Focal Point Meeting .....	11
TB Trials Consortium (TBTC) Updates .....	12
CDC Tuberculosis Trials Consortium (TBTC) Study 33 (IAdhere) .....	12
Reasons LTBI Patients Declined or Enrolled in TBTC Study 33 .....	13
Communications, Education, and Behavioral Studies Branch Updates .....	13
2014 TB Program Managers' Course .....	13
Data Management and Statistics Branch Updates .....	15
TB Data Users Group .....	15
International Research and Programs Branch Updates .....	16
Handbook for Analysis of TB Surveillance Data .....	16
Laboratory Branch Updates .....	17
Historic Microscope on Display at David J. Sencer CDC Museum .....	17
New CDC Publications .....	17
Personnel Notes .....	19
Calendar of Events .....	28

Note: The use of trade names in this publication is for identification purposes only and does not imply endorsement by the Centers for Disease Control and Prevention (CDC), the Public Health Service, or the Department of Health and Human Services. The findings and conclusions in the articles published in TB Notes are those of the authors and do not necessarily represent the official position of CDC.

**HIGHLIGHTS FROM STATE AND LOCAL PROGRAMS**

**2014–2015 NTCA Board**

Guided by passion for what they do and a responsibility to the people they serve, with a commitment to their staff and colleagues in TB programs across the U.S., and holding the shared vision for a *world free of TB*, the members of the all-volunteer Board of the National TB Controllers Association (NTCA) donate their time guiding the organization. Over the last several years, as the organization has evolved, these voluntary positions are increasingly expanding in scope, time involvement, and potential for impact.

The leadership of NTCA changes each June, at the conclusion of the National TB Conference. As the President steps down, the new President steps up, along with four newly elected incidence-level representatives (three for specific incidence levels and one at-large), a President-elect, and a second member of the Executive Committee—either the Treasurer or the Secretary—on alternating years. This year, with the adoption of a new set of bylaws, the Presidents of the three sections, the National Society of TB Clinicians (NSTC), the National TB Nurse Coalition (NTNC), and the Society for Epidemiology in TB Control (SETC) are also assuming their places among the NTCA leadership as voting members of the Board.

For 2014–2015, John Bernardo (MA) serves as the NTCA Board President, and Jenny Flood (CA) moves to the Immediate Past President position. Jane Moore (VA) continues for a second year serving in the Secretary position. Newly elected to the NTCA Executive Committee are

Robert Belknap (CO-Denver) as the President-Elect and Julie Higashi (CA-San Francisco) as the Treasurer.

Newly elected incidence-level representatives:  
Nancy Baruch (MD) — high incidence  
Peter Davidson (MI) — medium incidence  
Kristin Rounds (SD) — low incidence  
Diana Fortune (NM) — at large

These newly elected incidence-level representatives join colleagues who include  
Diana Nilsen (NY-NYC) — high incidence  
Rose Marie Sales (GA) — high incidence  
Heidi Behm (OR) — medium incidence  
Naveen Patil (AR) — medium incidence  
Denise Ingman (MT) — low incidence  
Lorna Will (WI) — low incidence

Finally, the three newly elected Presidents of the NTCA sections are as follows:  
Barbara Seaworth (TX-Heartland TB Center) — National Society of TB Clinicians (NSTC)  
Barbarah Martinez (TX-Houston) — National TB Nurse Coalition (NTNC)  
Shama Ahuja (New York-NYC) — Society for Epidemiology in TB Control (SETC)

These elected Board members meet by telephone conference every month, and each one participates in various committees and workgroups or serves as liaison to the federal TB initiatives, providing that much-needed field perspective. This volunteer commitment, on top of their regular “day jobs,” is intense, but they continue to give of their time and talent. We are a stronger organization for their leadership and they serve as role models for others.

Please reach out to the Board and let them know how best they (and the organization they serve)

*TB Notes is a quarterly publication of the Division of TB Elimination (DTBE) of the National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention (NCHHSTP), Centers for Disease Control and Prevention (CDC). This material is in the public domain, and duplication is encouraged. For information, contact*

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

ACTING DIRECTOR, DTBE  
Philip LoBue, MD, FACP, FCCP

EDITORIAL REVIEW BOARD  
Ann Lanner, Managing Editor  
Sandy Althomsons, MA, MHS  
Beverly DeVoe-Payton, MS  
Michael Fraser  
Philip LoBue, MD, FACP, FCCP  
Deanna Tollefson, MPH  
Mary Naughton, MD, MPH  
Frances Tyrrell, MPH, MT (ASCP), SM

Visit DTBE's Internet home page,  
<http://www.cdc.gov/tb>,  
for other publications, information, and  
resources available from DTBE.

can represent you, your program, and those you serve. In addition, the NTCA has an expanding list of sections, committees, and workgroups. We can find a way for you to be involved, lending your expertise, experience, and passion for TB control (and elimination!) to achieve our goals, and ultimately, to benefit our abilities to continue protecting the public's health from tuberculosis.

To learn about opportunities for greater engagement in the work of the NTCA, please visit our website, [www.tbcontrollers.org](http://www.tbcontrollers.org)!

—Submitted by Jennifer Kanouse  
and Donna Hope Wegener  
National TB Controllers Association

## **Review of Work by the NTCA Survey Committee**

### *Background*

The National Tuberculosis Controllers Association (NTCA) is a professional member organization that brings together the leaders of

TB programs from across the country. Most often, surveys or inquiries about TB control programs go through NTCA. However, requests occasionally go directly to the TB controllers and program staff. Over the last several years, the number of survey requests has increased. These requests have come from various entities, including industry, government, other TB programs, partner organizations, and masters and doctoral students. These types of requests require significant time from the TB programs, and sometimes important requests might be overlooked, given other time constraints and competing priorities.

Under Dr. Jon Warkentin's leadership, the 2012–2013 NTCA Board recognized the need for a central mechanism—a “clearinghouse” of sorts—for these requests to be reviewed, enhanced, facilitated, and prioritized in order to minimize response burden. This happened concurrently with a newly recognized need to develop an NTCA research agenda. The Research and Survey Committee (RSC) was established in response to these needs in 2012. Sarah Burkholder agreed to serve as the inaugural Chair of the committee.

Requests for time-sensitive surveys of TB control programs regarding issues of improvement of programmatic practices and outcomes started pouring in soon after the establishment of the Committee. Under Sarah's leadership, a formal submission and review process was developed, which includes collaboration with the requestors to maximize the relevance of the data for the TB programs. The submission process is outlined below.

In October 2013, Michelle Macaraig became Chair of the Committee and worked to formalize the roles of the RSC. During this time, NTCA was establishing a new section devoted to the epidemiology of TB. This section recognizes the critical role epidemiology plays and the increasingly important role that data and evidence-based decisions will have in the future

of TB control and elimination activities. The membership of this section brings substantial expertise and experience conducting, analyzing, and utilizing research.

Recognizing both that the RSC had spent a majority of the time quickly responding to urgent data requests, and that the expertise and opportunities to find and conduct systematic research within TB programs existed in the epidemiology section, the committee decided to transfer all research responsibilities to the Epidemiology section. The RSC now focuses on the urgent survey requests that have immediate impact on TB programs, and was renamed the Survey Committee. Effective August 2014, the NTCA Survey Committee has oversight function and review of surveys involving TB controllers and TB program staff.

*Formal role for the committee*

The Survey Committee was established by the NTCA to organize and facilitate requests to survey TB control programs. The members of the committee consist of volunteers from TB control programs across the country with programmatic, clinical, and research experience.

The role of the committee is to ensure the requests are consistent with the mission of NTCA and benefit the TB control programs. The members of the committee and the requestors work collaboratively to ensure that the data collected will be of interest to the programs, and develop (or refine) the survey. In some cases the surveys are administered by the requesting entity; in other instances, the NTCA staffers assume responsibility for creating an electronic survey instrument and administering it electronically. Collection, analysis, and ownership of the data are determined during the review process.

*Projects completed to date*

Even before the Committee was formed, NTCA was organizing its own data collections. Since its inception, the Committee has initiated or

facilitated nine surveys designed to measure the capacity of TB programs to accomplish their mission in the context of declining resources and funding; to obtain information about TB drugs and diagnostics shortages experienced by the TB programs and community partners; use of, and demand for, rifapentine by TB control programs; and educational assessments of knowledge needed to successfully fulfill responsibilities within a TB control program.

These projects have had direct impact on and are of direct benefit to our programs. In part, the survey work accomplished by this Committee—in partnership with both the Treatment Action Group and with Sanofi—resulted in a price drop for rifapentine.

*Who can make a request, and what is the submission process?*

Anyone can submit a request to the Survey Committee. Historically requests have come from NTCA, TB controllers and staff from TB control programs, CDC, academic institutions, and pharmaceutical companies.

The process requires the submission of a standardized request form outlining the purpose, timeline, methods and anticipated benefits of the survey for TB control. In addition, it requires the submission of a draft survey instrument and a copy of the investigator's curriculum vitae.

*Process*

Complete the [Survey Request Form](#) and send to [ntca@tbcontrollers.org](mailto:ntca@tbcontrollers.org) or contact Dr. Michelle Macaraig, Chair, at [mmacarai@health.nyc.gov](mailto:mmacarai@health.nyc.gov).

*What types of information can be requested?*

Requests for information should be for the purposes of improving TB programmatic practices and outcomes. Survey topics can range from but are not limited to current TB control practices, interest in participating in new initiatives, or obtaining information about emerging challenges, issues, and conditions related to the TB control.

*NTCA Survey Committee members*

Michelle Macaraig, Chair, NY-NYC Dept of Health and Mental Hygiene  
Sheanne Allen, WA Dept of Health  
John Bernardo, MA Dept of Public Health/Boston University  
Marcos Burgos, NM Dept of Health/University of New Mexico  
Sarah Burkholder, IN State Dept of Health  
Jason Cummins, TN Dept of Health  
Peter Davidson, MI Dept of Community Health  
Karen Farrell, FL Dept of Health  
Jennifer Flood, CA Dept of Public Health  
Stephen Hughes, NY State Dept of Health  
Amanda Kita-Yarbro, Public Health Madison & Dane County, WI  
Mark Lobato, CDC, Division of Tuberculosis Elimination  
Diana Nilsen, NYC Dept of Health and Mental Hygiene  
Andrew Tibbs, MA Dept of Public Health  
Shu-Hua Wang, OH Dept of Health/The Ohio State University  
Jon Warkentin, TN Dept of Health  
Donna Wegener, NTCA  
Lorna Will, WI

If you are interested in becoming part of the NTCA Survey Committee, please send an e-mail to [ntca@tbcontrollers.org](mailto:ntca@tbcontrollers.org) with your request to be included in monthly conference calls.

*—Submitted by Michelle Macaraig, DrPH, MPH  
Chair, NTCA Survey Committee  
NYC Dept. of Health and Mental Hygiene,  
Tuberculosis Control  
and Jennifer Kanouse and Donna Hope Wegener  
National Tuberculosis Controllers Association*

## 2014 Watsonian Society Banquet



On Oct. 22, 2014, the Watsonian Society met for its annual banquet at the Marriott Century Hotel in Atlanta. The keynote speaker at the event was Rear Admiral (Retired) Kenneth G. Castro, former Director of the Division of Tuberculosis Elimination (DTBE). Dr. Castro also received the Honorary Public Health Advisor (PHA) Award from the Watsonian Society, a CDC employee organization representing the contribution of PHAs to the nation's and the world's public health.

Each year, the membership of the Watsonian Society nominates and selects a candidate who has made one or more major contributions to the overall growth of the PHA series. In nominating Dr. Castro for the Honorary PHA Award, the Watsonian Society cited the following to justify his selection: "Under Dr. Castro's leadership, DTBE established and maintained one of the agency's largest groups of PHA field assignees, and he continually recognized and promoted the work of PHAs assigned to state/local health departments. He is an enthusiastic and consistent advocate for having PHAs in management roles, in recent years adding PHA deputy branch chief positions in DTBE branches. Dr. Castro is also a strong supporter of CDC programs such as the Public Health Apprenticeship Program (PHAP), which is designed to reestablish the PHA pipeline, providing financial and management support to

the program and hiring recent PHAP graduates for TB field assignments. Those who know Dr. Castro are quite familiar with his focus on the mission of disease prevention and control, and his disdain for bureaucratic hurdles and red tape. He came to rely strongly on PHAs because they can contribute to accomplishing the mission both directly through their programmatic work, as well as indirectly by navigating through and handling complicated administrative processes so the programmatic work could get done.” Dr. Castro certainly epitomizes the spirit of Public Health Advisors.



In his keynote address, Dr. Castro acknowledged the contributions of PHAs in his early days at CDC. “In 1993, I was selected by Dr. Alan Hinman to become the Director of CDC’s Division of Tuberculosis Elimination, where I worked closely with several others listed here. Carl [Schieffelin], Paul [Pope], and Phil [Talbot] served as Deputy Directors, while Kate [O’Toole], Heather [Duncan], and Kathryn [Koski] served as Associate Directors for Management and Operations. I learned from all of them. In fact, as a young, brash Division Director at CDC, I stayed out of prison thanks to the guidance provided by Carl and Paul. As an innate problem-solver, God knows that I was prone to come up with solutions that were downright illegal, according to federal government rules. By the time Phil arrived as our Deputy, I had learned quite a bit from his predecessors.” Dr. Castro also commented that, “Over the years, the attributes that have characterized PHAs have included the ‘can-do’

and ‘mission-oriented’ attitude, as well as mobility, resulting from being transferred multiple times, especially in the early parts of their careers. This allows PHAs to contribute a breadth of experience to local and state health departments.”

He addressed challenges and opportunities for PHAs. As communication strategies have changed, he challenged PHAs to adopt new skills, particularly in the use of social media. He also spoke of the challenges of being frequently deployed to assist in disease outbreak investigations around the world. In addition, he described how we need to respond to the implementation of the Affordable Care Act. Analytical skills are critical for planning health promotion and disease control strategies. We need to ensure that the PHAs entering the public health system are prepared to deal with these new challenges. He concluded, “...If we are to be data-driven and data-informed, the Public Health Associate training program must develop, implement, and measure success and failures to revise and adapt our approach.” He emphasized the value of the servant leader: “A servant-leader focuses primarily on the growth and well-being of people and the communities to which they belong.”

The Watsonian Society was formed to foster and continue professional and social relationships among PHAs. The Society was named for William C. Watson, who retired from CDC in 1984 as CDC’s Deputy Director, the first and only person without a doctorate to reach that rank. Watson was recruited by the US Public Health Service to be an adviser in its venereal disease campaign, a program that was later shifted to CDC. Bill Watson made such a positive impression in his 36-year career with CDC that two of its hallmarks bear his name. One is the William C. Watson Jr. Medal of Excellence, which is CDC’s highest honor. The other is the Watsonian Society, which aims to inculcate the leadership attributes Watson embodied in future CDC managers. William Clarence Watson Jr.,

died on December 23, 2013. He leaves a rich legacy to which we are the heirs.”

If you would like more information about the Watsonian Society, please visit its website: <http://www.cdc.gov/watsonian/>.

—Reported by Bob Kohmescher  
CDC Public Health Advisor  
Retired December 2011

## TB EDUCATION AND TRAINING NETWORK UPDATES

### 2014 TB ETN Conference

The TB Education and Training Network (TB ETN) held its 13<sup>th</sup> conference September 16–18, 2014, in Atlanta, Georgia, in conjunction with the 5<sup>th</sup> annual TB Program Evaluation Network (TB PEN) Conference. Over 200 participants attended from all over the world, representing state and local TB programs, nonprofit organizations, and academia.

This year’s theme, “The Changing Landscape of TB,” inspired exciting presentations and activities throughout the 2½-day meeting. Dr. Jenny Flood provided the opening plenary speech, “The Changing Landscape of TB” (see details below, in the TB PEN summary). Plenary session topics included an overview of recent changes in TB control and prevention, an update on video DOT activities, including examples from state programs, and a panel discussion on contact investigations from a national and state perspective. Breakout sessions provided opportunities to delve further into topics, such as how to set up a video-observed therapy program, conduct effective presentations, promote World TB Day and other TB program activities, evaluate contact investigations, and evaluate the new LTBI drug regimen. In addition, the Regional Training and Medical Consultation Centers presented highlights of their activities and products and held meetings with states from their

respective regions. A highlight of the conference was the ETN and PEN Focal Point Meetings.

This conference marked the 5<sup>th</sup> year for the TB Educator of the Year Award and the Project Excellence Award. These awards were established in 2010 to recognize excellence in TB health education and training by TB ETN members around the world. Wanda Walton, PhD, Chief of CDC’s Communications, Education, and Behavioral Studies Branch, announced the winners and presented the awards. Following are Dr. Walton’s remarks.

The TB Educator of the Year award recognizes an individual who has shown dedication and leadership in the field of TB education and training. There were many excellent nominations, and for the first time ever, we had a tie for this award! The two winners of this year’s award are Ann Jackson and Alexandra Santana Camacho.

Ann Jackson was selected as a TB Educator of the Year.



Ann Jackson is a Nurse Consultant with the Office of TB and Refugee Health at the Mississippi State Department of Health. Ann has been described as a ‘training dynamo’ who has worked more to increase the awareness of TB in Mississippi than any other individual. As an example of the training she provides, Ann conducts an average of 78 day-long classroom TB trainings per year and certifies about 2,500 individuals, mostly nurses, per year (that’s over 10,000 people in the last 4 years!). She also strives to make training more accessible and

affordable. Recently, she hosted a live online training on 'TB interviewing basics,' followed by in-person regional classroom sessions using role play and videotaping of practice interviews for feedback and improvement. She is also responsible for maintaining and updating the TB program manual. These are just a few of the many, many examples of the work Ann does regarding TB education and training.



Alexandra Camacho, left, is congratulated by Peri Hopkins for also being selected as a TB Educator of the Year.

Alexandra Santana Camacho is the TB Program Educator at the Puerto Rico Department of Health. When Alexandra joined the Puerto Rico TB Control Program, there had been no consistent health educator for more than 5 years. Her first activities on the job were updating and standardizing the program's employee orientation plan, updating the program's website, and developing a comprehensive Spanish-language TB guide for physicians, nurses, and other health care providers. She also hosted a Spanish-language TB contact investigation (CI) course after translating hundreds of English-language slides into Spanish. Her 4-day CI course in June 2014 was the first formal CI training to be offered to the more than 20 technicians and nurses of the Puerto Rico TB Program. In summary, Alexandra has worked to build a multifaceted, high quality, culturally appropriate TB education program in just over a year's time.



Kate Louther, left, is congratulated by Wanda Walton upon her accepting the Project Excellence award for her team.

The Project Excellence award recognizes exceptional health education and training products or activities that have been developed by TB ETN members within the past 2 years. The 2014 TB Project Excellence Award goes to the 'TB Sputum Collection Video.' This project was developed by Madison and Dane County TB public health staff in Wisconsin. The team consisted of Julia Greenleaf, Nancy Odell, Jesse Ramirez, Kate Louther, Lorna Will, and Jeff Golden.

The TB Sputum Collection Video was developed to address the lack of effective instructions or videos to help TB patients learn how to provide TB sputum specimens. The team applied for and received a grant for the video production from the Wisconsin Medical Society Foundation. The video was then produced by program staff and eventually translated into Spanish, Hmong, and Nepali. Since the development of the original English video, it has been translated into 15 additional languages, including Khmer, Swahili, Karen, Vietnamese, French, and Russian. All of the videos are available on the program's website.

Dr. Wanda Walton and Dr. Terry Chorba, Chief of DTBE's Field Services and Evaluation Branch, closed out the meeting with updates from their respective branches.

Congratulations to the 2014 award winners! And thanks to all the individuals who worked tirelessly behind the scenes to make this another successful conference for training and evaluation staff throughout the country.

—Reported by Peri Hopkins, MPH  
Health Education Specialist  
Div of TB Elimination

## TB PROGRAM EVALUATION NETWORK UPDATES

### 5<sup>th</sup> TB Program Evaluation Network (TB PEN) Conference and Program Evaluation Focal Point Meeting

The TB Program Evaluation Network held its 5<sup>th</sup> annual conference September 16–18, 2014, in conjunction with the TB Education and Training Network (ETN). A total of 38 Program Evaluation (PE) focal points from TB control programs across the country attended. These PE focal points have been assigned as part of DTBE efforts to develop and strengthen the capacity of state and local TB programs to monitor and evaluate their programs and to enhance the effectiveness and programmatic accountability of TB prevention and control activities.



Dr. Jenny Flood, left, with Dr. Wanda Walton. Dr. Flood gave the opening speech at the 2014 TB ETN conference.

The keynote speaker, Dr. Jennifer Flood, Chief of the TB Control Branch, California Department of Public Health, focused on the key changes in TB

prevention and control: the implication of the Affordable Care Act (ACA); cases becoming fewer but more complex; program evaluation progress; and the implications of education, evaluation, and training. Topics of joint plenary sessions with the ETN included video observed therapy, TB contact investigation (CI), and updates from DTBE on education and training, and program evaluation activities. Other conference activities included breakout sessions, workshops, skill building sessions, and a poster session. Topics of PE breakout sessions included Program Evaluation 101, a discussion of the new latent TB infection (LTBI) regimen, ACA: opportunities for partnerships, and contact investigation evaluation.

The breakout session on contact investigations offered participants the chance to highlight the creative and innovative approaches they have undertaken to successfully evaluate CIs along with the opportunity to discuss database development and usage, peer counseling, policies, and recommendations for future CI activities.

Cheryl Kearns, Chair of the TB PEN Steering Committee, facilitated an open forum discussion session among focal points, the TB PEN Steering Committee, and DTBE staff on how to improve communication among these stakeholders and discuss evaluation expectations for the coming year. Field Services and Evaluation Branch staff, DTBE leadership, and the Program Evaluation Team Lead also participated in the discussion.

The final TB PEN session, developed in response to previous conference evaluations, focused on National Tuberculosis Indicator Project (NTIP) calculations. Detailed information regarding the completion of treatment within 12 months and sputum culture conversion within 60 days of treatment initiation indicators was presented, with additional time for questions about other indicators of interest.

The joint conference featured 25 posters, 18 of which represented TB program evaluation activities (Figure 1). Poster presentation topics included contact investigation; cohort review; cost of TB treatment and case management; data quality alerts and program performance; directly observed therapy; the 12-dose isoniazid-rifapentine regimen for LTBI treatment, also known as 3HP; MDR TB; refugee and immigrant evaluation; TB outbreaks; TB treatment delays; and TB drug shortages. Two of the TB PEN posters were selected for oral presentation. The posters, titled “Using California’s Tuberculosis Program Assessment Tool (TPAT) to Track Local Infrastructure and Resource Changes” and “Cost of TB Treatment, Evaluation, and Case Management” were presented by Melissa Ehman and Kate Louther, respectively, during the local presentation plenary session.

Preliminary comments indicate the TB PEN Conference was a great success. Formal evaluations are being reviewed and will be shared with the TB PEN Conference Planning Committee when they reconvene in the fall of 2015. If you have further suggestions for the 2016 TB PEN Conference or would like to participate on the planning committee, please send an email to [tbpen@cdc.gov](mailto:tbpen@cdc.gov)

—Reported by Cheryl Kearns  
TB PEN

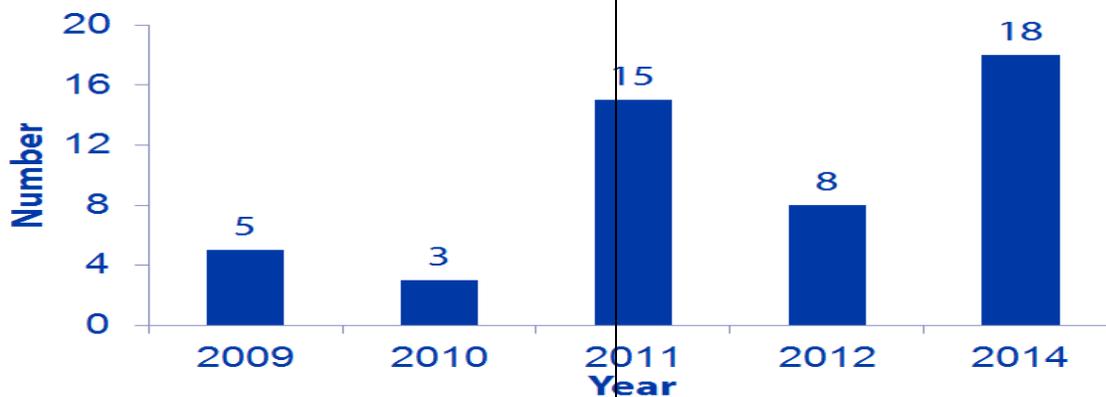


Figure 1. Number of Abstracts Submitted for the TB PEN Conference, 2009–2012 and 2014

## TB TRIALS CONSORTIUM (TBTC) UPDATES

### CDC Tuberculosis Trials Consortium (TBTC) Study 33 (IAdhere)

CDC’s Tuberculosis Trials Consortium (TBTC) Study 26 trial, Prevent TB, demonstrated the safety and effectiveness of the new 3-month, 12-dose regimen for latent TB infection (LTBI). The trial studied isoniazid (H) and rifapentine (P) given once weekly by directly observed therapy (DOT) for 3 months (3HP) compared with 9 months of daily, self-administered therapy (SAT) with INH alone (9H)(New Engl J Med 2011; 365: 2155).

Owing in part to cost and logistical constraints, SAT has been used most commonly with regimens for treatment of LTBI; DOT has been reserved for select individuals at increased risk of poor adherence, based on factors such as homelessness, incarceration, and drug or alcohol addiction.

The 3HP regimen was developed largely because its requirement for only 12 doses, compared to a minimum of 240 doses for 9H, would make treatment of LTBI more feasible, thereby increasing acceptance and treatment completion rates in patients with LTBI. However,

the programmatic costs of DOT have limited wider uptake of the new regimen. Cost studies have indicated that the new regimen may be cost effective from some perspectives even when used with DOT, but would be cost saving from all perspectives if SAT could be used and still achieve similar levels of adherence as DOT (*Int J Tuberc Lung Dis* 2014; 18:751).

Recognizing the importance of costs in adopting 3HP, in 2012, TBTC initiated Study 33, an international randomized trial to assess treatment completion of 3HP when given as SAT. Having this additional clinical trial also provides another opportunity to assess safety of the regimen and a first opportunity to evaluate whether safety might be affected by changing the mode of drug administration from DOT to SAT.

Study 33, also called the IAdhere study, enrolled 1,002 participants in the United States of America, Spain, Hong Kong, and the Republic of South Africa. All persons have now completed treatment and follow-up phases. The trial collected data on adherence using patient report, pill counts, scheduling information, and electronic bottle caps. Information on safety included data on discontinuations, as well as information on signs, symptoms and other events reported in study participants prior to and during the treatment. Preliminary results of the safety analysis were presented at the 45th UNION World Conference on Lung Health, as part of the UNION/CDC Late Breaker Session (*Int J Tuberc Lung Dis* 2014; 18 [11 Suppl 1]: S1 – S592). Data on the adherence outcomes of the study, comparing patients' adherence to 3HP in two SAT groups and one DOT group, are currently being analyzed. Presentation of these results is expected early in 2015.

—Reported by Andrey S. Borisov, MD, MPH, Study 33 (IAdhere) Project Officer  
Div of TB Elimination

### **Reasons LTBI Patients Declined or Enrolled in TBTC Study 33**

As noted above, TBTC Study 33 assessed adherence to the 3-month, 12-dose once-weekly regimen of isoniazid and rifapentine (3HP) when given by DOT (directly observed therapy), SAT (self-administered therapy), or SAT with weekly short messaging service reminders.

To assess the generalizability of study results and to facilitate recruitment efforts in future trials, investigators recorded reasons why persons who were initially approached about the study were not enrolled.

Persons not enrolled by their own choice were asked about reasons for declining. Additionally, a sample of study participants who did enroll were asked to report their motivations for enrolling.

Almost half of the 2,171 persons screened for participation were not enrolled. The top reasons for study decline included concerns surrounding study medications and reluctance to undergo treatment or participate in research. Among those enrolling, frequent reasons included access to shorter treatment regimens and improving health. An analysis of these data was presented as a poster at the 45th UNION World Conference on Lung Health in October; a subsequent publication is planned.

—Reported by Kimberley Chapman, MPH,  
and Joan Mangan, PhD  
Div of TB Elimination

## **COMMUNICATIONS, EDUCATION, AND BEHAVIORAL STUDIES BRANCH UPDATES**

### **2014 TB 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 country. 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 region (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.

*2014 TB Program Managers' Course*  
The DTBE Communications, Education, and Behavioral Studies Branch (CEBSB) would like to



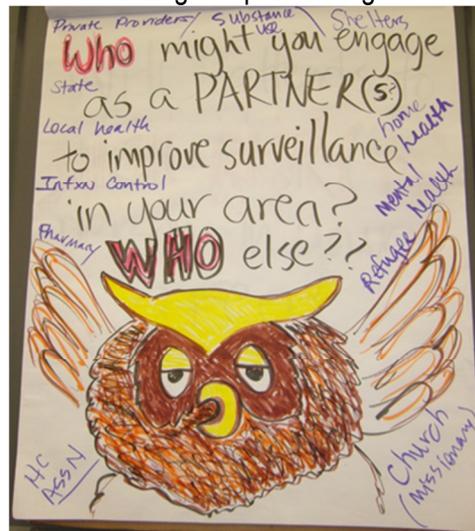
thank the faculty and participants of the 2014 TB Program Managers' Course for making the course such a success. The hard work of the faculty in preparing the materials for their sessions and the participants' efforts during the course are greatly appreciated.

Based on the 2012 needs assessment feedback to decrease the out-of-office time required for attending the course, this year's course was revised to consist of a web-based and an in-person portion. The web-based portion consisted of a series of six webinars held in August and September 2014. The in-person portion of the course was held October 7-9, 2014, at the Courtyard Marriott in Decatur. The 3-day in-person training was divided into 13 sessions.

Each webinar or session stood alone as a block of instruction, but it was sequenced to build logically on the webinar/sessions preceding it. The course concluded with a charge to the participants from Dr. LoBue and an opportunity for each participant to share what he or she had learned.



The course stressed the practical application of planning, management, and evaluation concepts to the specific needs and activities of TB programs. Skills essential to TB program management were presented, followed by exercises and polling questions that encouraged participants to use knowledge learned. Some new additions to the course were "Program Planning with Reduced Resources" and "Understanding Cooperative Agreements."



For the participants, the course is not entirely over. They will be mailed a 6-month follow-up questionnaire in April 2015. Once this questionnaire is completed and returned, each participant will receive a certificate of completion for the course.

*—Reported by Allison Maiuri, MPH, CHES,  
Sarah Segerlind, MPH, and  
Molly Dowling, MPH, CHES  
Div of TB Elimination*

## **DATA MANAGEMENT AND STATISTICS BRANCH UPDATES**

### **TB Data Users Group**

The TB Information Systems Team of DTBE's Data Management and Statistics Branch (DMSB) performs all software development activities within the DTBE; provides helpdesk support for those applications that are in production; supports the state TB programs with IT advice and some support for the TB surveillance systems; and monitors the National TB Surveillance data to verify, validate and ensure the quality and completeness of the case data submitted.

In 2010, soon after U.S. public health jurisdictions began transitioning from the TIMS legacy system to the multiple National Electronic Disease Surveillance Systems (NEDSS), the DMSB TB Information Systems Team received a request from two surveillance coordinators for help in creating a forum to share information among all the TB data users. The coordinators wanted a forum in which their colleagues in state programs could address surveillance issues of similar concern (i.e., development of reports to extract useful data from NEDSS, especially data needed to address our cooperative agreement requirements). Since the data needs are similar among jurisdictions, this approach seemed to be the most practical, rather than having these issues raised in each jurisdiction, which would

lead to multiple isolated solutions. In June 2010, the TB Information Systems Team stepped up to the plate and Stacey Parker became the primary logistics coordinator for the group to help them get organized. This group is now the TB Data Users Group (TDUG). Stacey provides the setup for a monthly conference call or webinar, as needed by the group, and is the hub for distribution of agendas and notes, as well as coordinating the support for CDC and subject matter expert (SME) presentations.

TDUG members develop the agenda for topics of discussion, and the discussions are lively and informative. Now entering its fifth year, the group has held monthly calls discussing various topics related to surveillance data. Some of these topics have included RVCT, including drill downs on specific items, such as the Moved or the Risk Factor question, NTIP, including discussion of specific algorithms for calculating Completion of Therapy and Drug Susceptibility Testing, and NTSS reports and data gathering for expanding reports. State users have shared custom-designed tools and reports that they use to assist with issues of data quality and even non-RVCT data tracking, such as contacts and LTBI.

TDUG has become a highly effective forum for sharing information across multiple state TB programs, as well as improving CDC-provided applications and processes, such as the NTSS Reports and the Case Closeout Process. Many ideas for improvement have begun with discussions in this group. Stacey ensures that key SMEs are available for the call, as indicated by the current topic, and that the Information Systems Team Lead (Sandy Price) and a member of the RVCT Quality Team (either Elvin Magee or Lilia Manangan) is available for questions during any discussions. Those questions that cannot be answered during the call are pursued between calls and addressed during the next meeting or through email correspondence.

TDUG has a standing call on the third Tuesday of each month at 2:00 pm Eastern time. Generally, each call has a topic for discussion or demonstration, as well as time for questions and answers and discussion of other topics. Agendas are provided to the group 1 or 2 days in advance, and notes are always compiled and sent out after the call. Teresa Goins from the Kentucky Department of Health stated after receiving the meeting slides, “AWESOME!!!... I always print and make use of any slides and notes you send—they are valuable to me.” If you are not a member of this distinctive group and think that it might be helpful to you, please contact the TB Applications Helpdesk (email [DTBESupport@cdc.gov](mailto:DTBESupport@cdc.gov) or call 888-300-4261) and ask to be included. We would love to have you join the discussion.

—Reported by Sandy Price  
Div of TB Elimination

## INTERNATIONAL RESEARCH AND PROGRAMS BRANCH UPDATES

### Handbook for Analysis of TB Surveillance Data

This fall, the World Health Organization (WHO) published a handbook, *Understanding and Using Tuberculosis Data*, to increase the capacity of TB program staff to analyze TB surveillance data and make data-driven decisions to improve their programmatic response. Country health information systems collect rich data on their burden of TB, but for a variety of reasons, TB program staff members tend to underuse these data. This in turn affects their ability to monitor the epidemic and assess progress towards TB targets. The WHO handbook is designed to build analytic capacity and encourage data use by taking readers step-by-step through examples on how to analyze TB surveillance data and use the results to make decisions.

The handbook is a product of the WHO Global Task Force on Impact Measurement.<sup>1</sup> The development of *Understanding and Using Tuberculosis Data* was a collaborative effort between WHO, the Division of Tuberculosis Elimination at CDC, and other technical agencies (e.g., KNCV and Public Health England) during 2012–2014. The handbook incorporates TB surveillance data from over 30 countries, with authors drawing heavily on their local and global experiences in working to assess, use, and improve TB surveillance data.

The book’s eight chapters are

1. Analysis of aggregated TB notification data
2. Analysis of case-based TB notification data
3. Using genotyping data for outbreak investigations
4. Analysis of factors driving the TB epidemic
5. Drug-resistant TB: analysis of burden and response
6. HIV-associated TB: analysis of burden and response
7. Estimating TB mortality using vital registration and mortality survey data
8. Combining surveillance and survey data to estimate TB burden

Readers can access *Understanding and Using Tuberculosis Data* at

[http://www.who.int/tb/publications/understanding\\_and\\_using\\_tb\\_data/en/](http://www.who.int/tb/publications/understanding_and_using_tb_data/en/).

—Reported by Deanna Tollefson, MPH,  
and Emily Bloss, PhD, MPH, MA  
Div of TB Elimination

#### References

1. More information on the Task Force is available at [http://www.who.int/tb/advisory\\_bodies/impact\\_measurement\\_taskforce/en/](http://www.who.int/tb/advisory_bodies/impact_measurement_taskforce/en/).

## LABORATORY BRANCH UPDATES

### Historic Microscope on Display at David J. Sencer CDC Museum

DTBE's Laboratory Branch recently donated an original microscope used by Charles C. Shepard, MD, for display at CDC's David J. Sencer Museum. Dr. Shepard, who was Chief of the Leprosy and Rickettsia Branch at CDC for more than 30 years, was an internationally recognized microbiologist who contributed immensely to the scientific knowledge and characterization of mycobacterial diseases. The donated microscope was used for work with *Mycobacterium leprae*. In 1960, Dr. Shepard was successful in growing *M. leprae* in laboratory animals, which had never been achieved before. This advance enabled scientists to test potential treatments and preventive measures for leprosy.

Dr. Shepard is also known for his diligent efforts that contributed to the discovery of the causative agent of Legionnaires' disease, *Legionella pneumophila*, in 1977.<sup>1</sup> After his death in 1986, CDC established the Charles C. Shepard Award. The award honors the memory of Dr. Shepard, whose career was marked by the pursuit of scientific excellence. This prestigious award is presented each year to recognize scientific achievement by CDC and ATSDR authors of the most outstanding peer-reviewed research paper published during the preceding year.<sup>2</sup> Access information about the David J. Sencer CDC Museum here:

<http://www.cdc.gov/museum/index.htm>.



This photograph shows Dr. Shepard carrying out microscopic examinations of slides in his laboratory, ca. 1960. Photo courtesy of the CDC Public Health Image Library.

—Submitted by Frances Tyrrell, MPH,  
and David Temporado, BS,  
Div of TB Elimination

#### References

1. Fraser DW, Tsai TR, Orenstein W, et al. Legionnaires' Disease — description of an epidemic of pneumonia. *N Engl J Med* 1977 Dec 1; 297:1189-1197; <http://www.nejm.org/doi/full/10.1056/NEJM197712012972201>
2. CDC Connects. The Charles C. Shepard Award – History. CDC/OADS; <http://intranet.cdc.gov/od/oads/od/shepardAward/history.htm>

## NEW CDC PUBLICATIONS

Anderson L, Tollefson D, Bloss E, Armstrong L, Yelk Woodruff R, van den Hof S. Chapter 3. Analysis of genotyping data and outbreak investigations. In: *Understanding and Using Tuberculosis Data*. Luxembourg: WHO; 2014. WHO/HTM/TB/2014.09.

Baker BJ, Jeffries CD, Moonan PK. Latent tuberculosis infection among foreign-born persons: a prioritized approach. [Letter to the editor.] *Ann Am Thorac Soc* 2014 Oct;11(8):1335-6. doi: 10.1513/AnnalsATS.201406-291LE. <http://www.ncbi.nlm.nih.gov/pubmed/25343203>. PMID: 25343203.

Benoit SR, Ellingson KD, Waterman SH, Pearson ML. Antimicrobial resistance in eight US hospitals along the US-Mexico border, 2000-2006. *Epidemiol Infect* 2014 Nov;142(11):2378-87. doi: 10.1017/S095026881300318X. Epub 2013 Dec 17.

Bloss E, Ershova J, van den Hof S, Law I, Mitchell E, Tollefson D. Chapter 1. Analysis of aggregated tuberculosis notification data. In: *Understanding and Using Tuberculosis Data*. Luxembourg: WHO; 2014. WHO/HTM/TB/2014.09.

Bloss E, Yelk Woodruff R, Tollefson D, van den Hof S, Armstrong L, Anderson L. Chapter 2. Analysis of case-based TB notification data. In: *Understanding and Using Tuberculosis Data*. Luxembourg: WHO; 2014. WHO/HTM/TB/2014.09.

CDC (Baker BJ, Poonja S, Mesrobian M, Lai A, Hwang S). Notes from the Field: Use of genotyping to disprove a presumed outbreak of *Mycobacterium tuberculosis* — Los Angeles County, 2013–2014. *MMWR* 2014 Oct 10;63(40):907-8.

CDC (Reaves EJ, Mabande LG, Thoroughman DA, et al.). Control of Ebola virus disease — Firestone District, Liberia, 2014. *MMWR* 2014;(Early Release):1-7.

Click ES, Chirenda J, Kibias S, Menzies HJ, Oeltmann JE, Sentle C, Muribe T, Lere TD, Makombe R, Bamrah S, Moore BK, Cain KP. The disconnect between a national tuberculosis drug resistance survey and treatment outcomes: a lost opportunity. *Int J Tuberc Lung Dis*. 2014 Nov;18(11):1319-22. doi: 10.5588/ijtld.13.0710.

Dharmadhikari AS, Mphahlele M, Venter K, Stoltz A, Mathebula R, Masotla T, van der Walt M, Pagano M, Jensen P, Nardell E. Rapid impact of effective treatment on transmission of multidrug-resistant tuberculosis. *Int J Tuberc Lung Dis*. 2014 Sep;18(9):1019-25. doi: 10.5588/ijtld.13.0834.

Dorman SE, Savic RM, Goldberg S, Stout JE, Schluger N, Muzanyi G, Johnson JL, Nahid P, Hecker EJ, Heilig CM, Bozeman L, Feng PJ, Moro RN, Mac Kenzie W, Dooley KE,

Nuermberger EL, Vernon A, Weiner M; the Tuberculosis Trials Consortium. Daily rifapentine for treatment of pulmonary tuberculosis: a randomized, dose-ranging trial. [Am J Respir Crit Care Med](#). 2014 Dec 9. [Epub ahead of print].

Duraisamy K, Mrithyunjayan S, Ghosh S, Nair SA, Balakrishnan S, Subramoniapillai J, Oeltmann JE, Moonan PK, Kumar AM. Does alcohol consumption during multidrug-resistant tuberculosis treatment affect outcome? A population-based study in Kerala, India. *Ann Am Thorac Soc*. 2014 Jun;11(5):712-8.

Gajadeera C, Willby MJ, Green KD, Shaul P, Fridman M, Garneau-Tsodikova S, Posey JE, Tsodikov OV. Antimycobacterial activity of DNA intercalator inhibitors of *Mycobacterium tuberculosis* primase DnaG. *J Antibiot (Tokyo)*. 2014 Sep 24. doi: 10.1038/ja.2014.131. [Epub ahead of print]

Girin N, Brostrom R, Ram S, McKenzie J, Kumar AM, Roseveare C. Describing the burden of non-communicable disease risk factors among adults with diabetes in Wallis and Futuna. *Public Health Action* 2014 01 Jun;4(Suppl 1):S39-S43.

Hoger S, Lykens K, Beavers SF, Katz D, Miller TL. Longevity loss among cured tuberculosis patients and the potential value of prevention. *Int J Tuberc Lung Dis*. 2014;18:1347-52.

Howley MM, Painter JA, Katz DJ, Graviss EA, Reves R, Beavers SF, Garrett DO; for the Tuberculosis Epidemiologic Studies Consortium. Evaluation of QuantiFERON-TB Gold In-Tube and tuberculin skin tests among immigrant children being screened for latent tuberculosis infection. *Pediatr Infect Dis J* 2014 Aug 4. [Epub ahead of print.]

Menzies HJ, Moalosi G, Anisimova V, Gammino V, Sentle C, Bachhuber MA, Bile E, Radisowa K, Kachuwaire O, Basotli J, Maribe T, Makombe R, Shepherd J, Kim B, Samandari T, El-Halabi S, Chirenda J, Cain KP. Increase in anti-

tuberculosis drug resistance in Botswana: results from the fourth National Drug Resistance Survey. *Int J Tuberc Lung Dis* 2014 Sep; 18(9):1026-33. doi: 10.5588/ijtld.13.0749.

Nandakumar S, Kannanganat S, Posey JE, Amara RR, Sable SB. Attrition of T-Cell Functions and Simultaneous Upregulation of Inhibitory Markers Correspond with the Waning of BCG-Induced Protection against Tuberculosis in Mice. *PLoS One*. 2014 Nov 24;9(11):e113951. doi: 10.1371/journal.pone.0113951. eCollection 2014.

Parija D, Patra TK, Kumar AMV, Swain BK, Satyanarayana S, Sreenivas A, Chadha VK, Moonan PK, Oeltmann JE. Impact of awareness drives and community-based active tuberculosis case finding in Odisha, India. *Int J Tuberc Lung Dis* 2014 Sep;18(9):1011-3.

Parsons TL, Marzinke MA, Hoang T, Bliven-Sizemore E, Weiner M, Mac Kenzie W, Dorman SE, Dooley KE. Quantification of rifapentine, a potent anti-tuberculosis drug, from dried blood spot samples using liquid chromatographic-tandem mass spectrometric analysis. *Antimicrob Agents Chemother* 2014 Sep 2. pii: AAC.03607-14. [Epub ahead of print.]

Reeves AZ, Campbell PJ, Willby MJ, Posey JE, et al. Disparities in capreomycin resistance levels associated with the rrs A1401G mutation in clinical isolates of *Mycobacterium tuberculosis*. *Antimicrob Agents Chemother*. 2014 Nov 10. pii: AAC.04438.

Shelke SC, Adhav PS, Moonan PK, Willis M, Parande MA, Satyanarayana S, Kshirsgar VD, Ghosh S. Photovoice: A novel approach to improving antituberculosis treatment adherence in Pune, India. *Tuberc Res Treat* 2014 (302601);doi:10.1155/2014/302601.

Shinnick TM, Starks AM, Alexander HL, Castro KG. Evaluation of the Cepheid Xpert MTB/RIF

assay. *Expert Rev Mol Diagn*. 2014 Nov 6:1-14. [Epub ahead of print]. PMID: 25373876.

Simner PJ, Hyle EP, Buckwalter SP, Branda JA, Brown-Elliott BA, Franklin J, Toney NC, de Man TJ, Wallace RJ Jr, Vasireddy R, Gandhi RT, Wengenack NL. Tenosynovitis caused by a novel nontuberculous mycobacterium species initially misidentified as *Mycobacterium tuberculosis* complex. *J Clin Microbiol*. 2014 Sep 24. pii: JCM.00967-14. [Epub ahead of print]

Sismanidis C, Mitchell E, Law I, Bloss E, Glaziou P. Chapter 4. Analysis of factors driving the tuberculosis epidemic. In: *Understanding and Using Tuberculosis Data*. Luxembourg: WHO; 2014. WHO/HTM/TB/2014.09.

Tedla Z, Nguyen ML, Sibanda T, Nyirenda S, Agizew TB, Girde S, Rose CE, Samandari T. Isoniazid-associated hepatitis in HIV-infected adults receiving thirty-six months isoniazid prophylaxis in Botswana. *Chest* 2014 Oct 23. doi: 10.1378/chest.14-0215. [Epub ahead of print.]

## PERSONNEL NOTES

Leeanna Allen, MPH, MCHES, joined CEBSB as a Health Communication Specialist on October 20, 2014. Leeanna started her career at CDC in 2008 in CDC's National Center for Environmental Health, Radiation Studies Branch, where she worked on radiological and nuclear terrorism preparedness communication and training initiatives. She previously served as training and exercise coordinator in the hospital preparedness program in the Georgia Division of Public Health, and also as an emergency risk communicator and health educator for the Arizona Department of Health Services.

Leeanna received her BS from the Georgia Institute of Technology, and her MPH from Emory University. She is looking forward to new challenges and opportunities in DTBE.

Yesmel Bodden-Santos, MA, has joined the DTBE/SEOIB Surveillance Team as the Branch's first CDC evaluation fellow, supported and provided by CDC's Program Performance and Evaluation Office. In collaboration with FSEB's Program Evaluation Team, Yesmel will help conduct surveillance cost estimates, TB surveillance training evaluation, and analysis for quality improvement processes.

Yesmel has an MA degree in Community Psychology with a concentration in program development from the University of New Haven, CT. Yesmel's interest in public service was fueled by her mother's work as an epidemiologist in the Dominican Republic. Yesmel's long travels with her mother to forgotten and marginalized communities living in extreme poverty fostered her passion to seek effective and innovative ways to make a difference.

Lorna Bozeman retired on September 30, 2014, after 31 years of service at CDC. Lorna was Team Leader of the Data Management Team in DTBE's Clinical Research Branch. For the past 18 years, Lorna has been the lynchpin in the TB Trials Consortium (TBTC) Data and Coordinating Center, serving both as Data Management Team Leader and as Microbiology Liaison. She is possibly the most recognized of all TBTC staff, interacting with virtually everyone at every TBTC site. She has been deeply respected for her commitment, her technical excellence, her teamwork, her cheerfulness, and her strong sense of fairness. She will be much missed.

Lorna grew up on a farm in Needham, Massachusetts, the first born of fraternal twin sisters, and one of four sisters, all with names starting with an "L." She attended Needham High School, and then headed south to attend college; during this time, she met and married Earl Bozeman. She graduated in 1975 from the University of South Carolina with a BS in Biology. She worked in a veterinary clinic over the next several years to support her continued education; in 1982 she earned a master's degree in Medical

Microbiology from the University of Georgia. She enrolled in a program in clinical microbiology at Emory Hospital and achieved Board certification.

In 1984 she came to CDC, and briefly worked in John Brooks' lab on tuberculostearic acid as a diagnostic agent for TB meningitis. She then worked for 6 years in the HIV laboratory of Dr. Steve McDougal, during the time that this laboratory identified the CD4 molecule as the primary receptor for HIV, and GP120 as the primary viral binding protein. In 1990, she left the laboratory to work for 6 years as an epidemiologist with the Agency for Toxic Substances and Disease Registry, investigating toxic waste accumulations at federal facilities.

In 1996 she interviewed for a position in DTBE's Clinical Research Branch, to serve as microbiology liaison and epidemiologist with the group involved in USPHS Study 22 (the rifapentine trial). She remained with this group for the next 18 years. Over time, she assumed increasing responsibility for TBTC data management; in 2004 she became Data Management Team Leader, directing the data management operations for all TBTC studies. She supervised a highly capable staff, with whom she assured the security and quality of trial data. She trained a succession of students from Emory's Rollins School of Public Health, assuring the continuation of experienced and skilled data management staff for TBTC. She was a co-author on most of TBTC's major trial reports, including Studies 22, 24, 27, 29, and the most recent report on the 12-dose regimen for LTBI, also known as 3HP (Study 26).

Lorna provided a superb example to others. She came early and often left late. She was, however, dedicated to living a full life. Her two daughters Eva and Arrie were often present, and she shared their experiences with many of her colleagues and friends. Her contributions were constant and innumerable, and her smiling presence, strong sense of equity, and dedication

to quality data in service of important public health goals will be greatly missed.

Danielle Burt, a first-year graduate student at Emory University Rollins School of Public Health, joined CEBSB in October. Danielle graduated from Furman University in May 2014, earning a BS degree in Health Sciences. She became interested in TB prevention and education during a study abroad trip to South Africa, Namibia, and Botswana, where she visited hospitals, clinics, and NGOs dealing with TB issues.

For the past 3 years, Danielle has served as a Research Assistant and Assistant Coordinator for LiveWell Greenville, an organization in Greenville, SC, that works to make environmental improvements in schools, workplaces, churches, health care settings, and recreational facilities to “make the healthy choice the easy choice.” Danielle conducted research on how the labeling of healthier options affected food purchases at Greenville County water parks during the summers of 2012–2014, and she presented the findings at two professional conferences. In addition, she assisted with the completion of a multimillion-dollar CDC-funded grant application, wrote newsletters, and created various toolkits. Danielle has enjoyed her time at CDC so far and is excited about continuing to learn from her colleagues.

Deron Burton, MD, joined DTBE's Clinical Research Branch on October 1. Deron comes to CRB having most recently served as Acting Deputy Branch Chief and the Lead for Pediatric TB and TB/HIV for IRPB here in DTBE. Prior to joining IRPB, Deron served as a Medical Epidemiologist and as the Deputy Director for Science for CDC's International Emerging Infections Program, Division of Global Health Protection, Center for Global Health, in Kisumu and Nairobi, Kenya. He led the development of, and served as the Principal Investigator for, a new surveillance project for meningitis and encephalitis in Kenya, and he mentored a team of six Kenyan public health scientists conducting

infectious disease monitoring and intervention studies in western Kenya.

Deron joined CDC in 2004 as an Epidemic Intelligence Service Officer with the Respiratory Diseases Branch in NCIRD. He was a preventive medicine resident in New York City, and then worked during 2007–2009 in CDC's Division of Healthcare Quality Promotion (DHQP), where he led an investigation of serious bloodstream infections among patients in intensive care in the U.S. In 2009, he was recruited for a detail as part of the Transition Team for the new CDC Director; his skill in providing rigorous scientific and policy analyses resulted in his selection as Special Advisor for Infectious Diseases to the Director of CDC (2010). CDR Burton also served as the Associate Director for Health Equity in the National Center for Health Marketing (2008–2009), where he served as part of the senior Center leadership team and led a Center-wide council that developed strategies to improve the Center's impact in the area of health equity promotion.

Deron is board certified in Preventive Medicine. In addition, he clerked for the DC Circuit of the U.S. Court of Appeals, and holds degrees in English, law, medicine, public health, and aerospace engineering!

Beth Gardner has joined IRPB on a 120-day detail to serve as the Deputy Branch Chief. Beth comes to us from the National Center for Environmental Health (NCEH) and the Agency for Toxic Substances and Disease Registry (ATSDR). For the past 7 years she has held the Extramural Team Leader position, reviewing and approving all contracts, grants and COAGs, and Interagency Agreements (IAAs) for the Center. Previously she was the Technical Information Management Section (TIMS) Team Leader in PGO Policy and implemented the electronic application process to CDC through Grants.gov. Her first position at CDC was in the National Immunization Program with the Extramural Research Office as an ORISE fellow.

Stephanie Johnston, MS, joined the Laboratory Branch on November 30, 2014, as the Team Lead of the Laboratory Capacity Team. Stephanie received her BS degree from Jacksonville University and her MS degree from Georgia Southern University. She began her career at CDC in 1998 as a Microbiologist in the National Center for Infectious Diseases, Division of Parasitic Diseases, where she led the development of the highly regarded DPDx website, which allows for teleradiology of parasites of public health concern submitted by partners throughout the world. In 2009, Stephanie transitioned to the Laboratory Training Branch, which is currently part of the Center for Surveillance, Epidemiology, and Laboratory Services, and had served as Team Lead supervising course designers in this branch starting in 2012. During her time in the Laboratory Training Branch, she worked closely with CDC subject matter experts and various public health agencies to ensure continued scientific development of public health laboratorians in areas such as public health policy, practice, and testing methods.

Awal Khan, PhD, of FSEB has been appointed the DTBE Health Equity Coordinator. Over the last several years, the DTBE Health Equity Workgroup has been addressing this critical area as it relates to TB elimination. This dedicated group of DTBE staff has been led by Awal Khan as chair and Elvin Magee and Gail Burns-Grant as co-chairs, with additional workgroup members Suzanne Marks, Allison Maiuri, Deanna Tollefson, Dolly Katz, Frances Tyrell, and Joan Mangan. Recently, Justin Davis has joined the workgroup to represent DTBE OD. To ensure this crucial work is adequately recognized and supported by DTBE, Dr. Phil LoBue appointed a Health Equity Coordinator for DTBE. He asked Awal Khan to take on this role, in addition to his program evaluation responsibilities, because of his exceptional leadership and dedication in this area. The duties of this position include serving as the primary point of contact for Health Equity activities for DTBE and regularly updating DTBE

OD and DTBE senior staff on these activities. Congratulations to Awal and the rest of the workgroup for taking on this important mission.

Ann Lanner is retiring at the end of 2014 after 36 years of service with the federal government, most of it with CDC. She has been with the NCHHSTP Division of Tuberculosis Elimination since 1993, first as a writer-editor and later as a Public Health Analyst.

Ann grew up in a military family. They lived in Turkey and Germany and visited many interesting places, eventually settling in Atlanta. Ann attended high school here; she was on the staff of the school newspaper, and worked in her local library during summers and after school. Graduating in 1971, she attended Furman and Clemson universities in South Carolina, and graduated cum laude with a degree in English in 1975. Between 1975 and 1985 she held four different jobs in three different cities. In January 1985 she came to CDC and knew she had found her "home."

Ann's first position at CDC was in the then-named Personnel Management Office, where she learned all about CDC's great work and people. During this time she married her husband David, and in September 1989, David Jr. was born.

She returned to work in December 1989 and took a position in the Division of HIV/AIDS Prevention. At that time, Dr. Jim Curran was Director; Drs. Ken Castro, Peter Drotman, Harold Jaffe, and John Ward were also there in various deputy positions. She also worked in the Center for Prevention Services' HIV Prevention Office, where she worked with Dr. Ron Valdiserri, Gary West, Steve Schindler, and other smart, talented people.

In April 1993, Ann transferred to the Division of Tuberculosis Elimination (DTBE). In 1995, she took over as managing editor of TB Notes newsletter and has produced it since that time. In

addition to TB Notes, Ann worked on a variety of projects involving writing, editing, publishing, and analysis. She worked for a number of years on the Center's annual report, and contributed to various CDC newsletters, fact sheets, budget-related justifications, reports, and other documents. She was involved for many years with the CDC task order for the development of the TB Weekly News Update, and for a while, between contractors, she produced it herself. She was responsible for compiling DTBE journal article citations, and also researched and provided advice on copyright issues. She enjoyed working and talking to others at CDC during the years she helped with the Combined Federal Campaign. She also enjoyed working with colleague Nicole Richardson-Smith and others at CDC and in state and local health departments in developing the TB Personal Stories project. This involved interviewing former TB patients and posting their stories on the DTBE website as a way to promote the essential work of U.S. TB control programs.

In 2005, she received the NCHHSTP Communications Services honor award. In 2012, the DTBE policy team, on which she served, received an NCHHSTP Honor Award in the Excellence in Finance category. Her colleagues generously included her in other awards as well. But the main prize has been working here, with great supervisors and coworkers and interesting work, which made it a pleasure to come to work.

Along the way, she has been fortunate to know and learn from inspiring and generous editors and communicators such as John Anderton, Elliott Churchill, Marie Morgan, Karen Resha, and others. She learned the ins and outs of copyright law from Sue Carlson. She greatly enjoyed working with Kathy Nellis Chastney and the CDC Connects staff on numerous features.

Being part of creative projects with colleagues will be one of her fondest memories. Two such projects served as bookends to her career: In 1994, DTBE sponsored a contest to name a new

electronic tool for tracking annual health care worker testing; Ann's entry, staffTRAK-TB, was selected and she won a fabulous chocolate cake as the prize. More recently, she wrote several articles about Scarlet Crow'Hara and Edgar Allan Crow, the scarecrows / TB education products that her Branch coworkers created for the Scarecrows in the Garden contest at the Atlanta Botanical Garden—sweetened by winning First Place in the nonprofessional category in 2013, the year they created E.A. Crow.

In retirement, after losing the alarm clock, Ann plans to read, travel, volunteer, ponder long-ignored home and garden projects, and reconnect with the long-lost art of relaxation.

Scott Lee joined DTBE's Data Management and Statistics Branch on September 30, 2014, as an ORISE fellow. He is currently here working part-time while completing his PhD at the University of Georgia, where he has studied and taught for the past 5 years; he will begin full-time work in January 2015. During his time as a fellow, Scott will work under DMSB Acting Branch Chief Chad Heilig to learn more about the practice of public health statistics and to prepare himself for what he hopes to be a long and rewarding career of service at CDC. Among other things, he is interested in applying the advanced probability models he implemented for his dissertation research to answer questions relating to the spread and control of TB. Having studied English, music, and linguistics in addition to epidemiology and biostatistics, Scott has a diverse academic background that he also hopes will enable him to make valuable contributions to the ongoing and future research projects in the branch.

Allison Maiuri, MPH, has left DTBE to accept a position as a health communication specialist with the National Center for Immunization and Respiratory Diseases (NCIRD)'s Division of Viral Diseases (DVD). Her last day in the office was November 14, 2014.

Allison has been a valued member of DTBE's Communications, Education, and Behavioral Studies Branch (CEBSB) for the past 8 years on the Education, Training, and Behavioral Studies Team. Allison first came to DTBE in 2006 as an Association of Schools of Public Health (ASPH) fellow. During her time at DTBE, she was responsible for managing, marketing, monitoring, and evaluating the Find TB Resources.cdc.gov website. This role included redesigning the site based on feedback from user testing. She also worked on the recently revised Self-Study Modules, 6–9, using input from subject matter experts as well as TB guidelines. Allison was very involved in training activities conducted by CEBSB. She planned, organized, and evaluated the TB Program Managers' Course, as well as the annual Training and Education Focal Points meeting. In addition, for several years, she served as the co-chair for the IUATLD Education and Training Workgroup. She will be missed, and we wish her well!

Tiffany Neal has joined CRB on detail as Deputy Branch Chief. Tiffany comes to us from the National Center on Birth Defects and Developmental Disability, Division of Human Development and Disability, Childhood Development and Disability Branch. For the past 7 years, she has been the Lead Public Health Advisor/Program Manager for the Rare Disorders and Health Outcomes Team. In this capacity, she worked with 31 research grantees implementing the Branch's registries and surveillance activities, and provided technical assistance and consultation in budget formulation and execution, personnel management, policy and communication, and program management, in support of the muscular dystrophy, spina bifida, and fragile X programs.

Chuck Nsiegbé, PhD, has been assigned to DTBE as our new OCFO Budget Analyst. He was previously with the Division of Adolescent and School Health (DASH) and replaces Patsye Ervin, who departed a few months ago.

Chuck has a vast amount of federal experience in accounting, finance, and systems. He is a proud US Army Veteran. Chuck earned his doctorate in IT Project Management from Capella University this year. Chuck also holds an MBA in Accounting and an MS degree in Information Communication Science.

Chuck's accomplishments include being an integral member of the Enterprise Resource Planning (ERP) financial systems replacement initiative for CDC, which launched CDC's UFMS. Chuck's knowledge spans systems analysis and design as well as financial systems integration, all of which enables him to provide exceptional budget analysis and presentation.

Robbie Payne joined the Office of the Director, Resource Management Team, on Nov. 17 as our new Budget Lead. He will be working closely with the OCFO Budget Analyst, OD, and the DTBE branches to strengthen budget tracking and analysis in the Division.

Robbie comes to us from the National Center for Chronic Disease Prevention and Health Promotion, where he most recently served as a project officer in the Arthritis Program. Robbie has worked in the field of arthritis the past 9 years of his 18-year career in public health. Before joining the Arthritis Program, Robbie managed a CDC Division budget that encompassed 12 Congressionally mandated programs totaling over a quarter-billion dollars annually. Prior to this, Robbie served as liaison between end users and programmers on a Team that designed an internal CDC management information system that is still in use across the agency today.

Erin Sizemore has returned to CRB/DTBE, after working 2 years as an epidemiologist in the Program Evaluation Branch, Division of HIV/AIDS Prevention, Intervention Research and Support. Erin is serving on the Data Management Team, where she supports a wide variety of functions previously led by Lorna Bozeman.

Erin first came to CRB in 2004 as a work-study student through the Emory/Rollins School of Public Health. She used her work here to provide the basis for her MPH thesis. After graduation, she left briefly to work at Grady Hospital as an Infection Control Associate, but returned in 2006 to work as an epidemiologist and data manager supporting TBTC Study 26. She eventually managed quality assurance for active TBTC studies, served as project officer on multiple sub-studies, and was a representative to the Implementation and Quality Committee, and the Pharmacokinetic and other work groups. She was a member of the Study 26 team that won the Shepard Award in 2012. Erin left in 2012 for a promotion in DHAP, where she managed large datasets and conducted national-level quality assurance in support of HIV program evaluation. She returned on detail in May 2014 and was offered a permanent position in December.

Jacek Skarbinski, MD, joined IRPB on August 23, 2014, as the DTBE medical officer to be stationed in New Delhi, India. He will be working with the Ministry of Health and partners to improve TB control in India. He will be stationed in India in early 2015.

Jacek started his CDC career in 2009 as an Epidemic Intelligence Service Officer in the Malaria Branch of the Division of Parasitic Diseases and Malaria. From 2009 to 2011, he worked on implementation of the President's Malaria Initiative (PMI) in Malawi, as well as numerous research studies in Tanzania, Ghana, Malawi, and Kenya. His research activities included clinical trials of new antimalarials, observational studies on prevention of malaria in pregnant women, household surveys to assess the prevalence of malaria disease and intervention coverage, studies of novel diagnostics and diagnostic algorithms, and research to develop strategies to improve malaria case management.

Most recently, from 2011 to 2014, he served as the Team Leader of the Clinical Outcomes Team in the Division of HIV/AIDS Prevention (DHAP), which administers the Medical Monitoring Project (MMP), a nationally representative surveillance system designed to assess clinical and behavioral characteristics of adults infected with HIV receiving care in the United States. In this position, he led a diverse team of medical officers, epidemiologists, sociologists, behavioral scientists, and statisticians to collect and disseminate data on strategies for improving HIV prevention and treatment in the United States.

Jacek received his medical degree from Stanford University School of Medicine, completed his clinical training in internal medicine at the University of California-San Francisco, and completed an Infectious Diseases Fellowship at the Emory University School of Medicine. He has authored or co-authored more than 50 scholarly articles and has received awards for his scientific and public health contributions, including two nominations for the Charles C. Shepard Science Award and two NCHHSTP Director's Recognition Awards.

Phil Talboy returned to DTBE on September 30. For the past year, he has been on sequential details, first as a Senior Public Health Advisor to the CDC Public Health Apprentice Program, and then as Deputy Director of the CDC Global Disease Detection Center in China. Phil will be serving as a Senior Public Health Advisor in DTBE OD working on cross-cutting issues, including staff development. Welcome back to DTBE, Phil!

Cheryl Tryon, MS, is retiring after a 40-year career, 27 years of which were with CDC. While she has had many job titles, her work always focused on instructional design: designing, developing, evaluating, and implementing health education materials and courses. In 1987, she began her first job at CDC in the Division of Media and Training Services; in 2002 she started working in the Global AIDS Program; and in 2006

she joined the Division of Tuberculosis Elimination, in the Communications, Education, and Behavioral Studies Branch. Prior to coming to CDC, she worked for 13 years at several Texas medical schools developing health education materials. In one of these positions, she also supervised a section of medical illustrators, graphic artists, and medical photographers. Cheryl received her MS degree in Biomedical Communications from the University of Texas Health Science Center at Houston and a BA degree in Art/Art Education from the University of South Florida, Tampa.

Cheryl thanks her lucky stars every day for her wonderful career at CDC and never dreamed she would work on so many fascinating and important projects. In addition, she had the opportunity to collaborate with talented, knowledgeable, and noteworthy colleagues from whom she learned so much along the way. It meant a lot to Cheryl to be able to use her skills to help people live longer, healthier lives, and she has felt honored to work with the people who are at the forefront of the fight against TB and HIV in the United States and in developing countries. She hopes her efforts have helped them develop knowledge and skills that can ease their burden in confronting these two devastating diseases.

Cheryl had numerous memorable projects, one of which was working on a slide presentation for Dr. C. Everett Koop for one of the early AIDS conferences. She produced a number of videotapes that teach people how to prevent infectious diseases such as Hantavirus, botulism, and mother-to-child-transmission of HIV. She helped develop many tuberculosis training projects such as the Self-Study Modules on Tuberculosis, the Mantoux Tuberculin Skin Test videotape, and the Report of Verified Case of Tuberculosis Self-Study Modules. During the 1990s she helped create several important CDC exhibits for the annual American Public Health Association (APHA) conferences. The topics of these exhibits included CDC's 50th Anniversary; Preventionville (a village that highlighted the

impact of public health); and Ten Great Public Health Achievements, 1900–1999.

One project she's most proud of has been the award-winning Teachback Methodology curriculum and trainings she has provided with Peri Hopkins and other CDC colleagues. This unique training-of-trainers method allows attendees to not only learn course content, but to also learn training skills and then teach content to fellow students. Since 2003, it has been used with 42 TB and HIV courses to enhance training capacity and build a competent training workforce. Cheryl has provided these trainings in 18 countries throughout North America, Africa, Asia, Europe, and the Caribbean, resulting in the training of 901 participants from over 80 countries.

She feels proud and fortunate that projects she has worked on have won over 20 international, national, and CDC awards for excellence in media design and health education. These included awards for training courses, videotapes, web sites, satellite uplinks, print materials, and exhibits. She shares credit for these awards with the wonderful clients who had meaningful projects and with talented and dedicated project team members who had very high production standards.

Cheryl loves her job, but she is looking forward to retirement so she can spend more time with friends and family, especially her step-daughter and granddaughter. She also plans on traveling to faraway places like Africa, Machu Picchu, and the Galapagos Islands. She will pursue her many interests and hobbies and will continue to create oil paintings, grow hundreds (maybe even thousands) of flowers in her garden, ride her bicycle through area parks, and kayak on nearby lakes (avoiding white-water and rocks of course). She will miss working with her special colleagues and friends at CDC, especially those in DTBE. She will miss them all dearly.

## In Memoriam

Katie Smith, a business services support specialist with NCHHSTP's Administrative Services Unit (ASU), passed away on October 26, 2014, after a brief illness. She worked for the CDC family for 21 years. Katie was first employed with NCHHSTP's Division of Tuberculosis Elimination in the International Branch, and later joined the ASU. Prior to joining CDC, Katie worked for Fulton County Government.

Katie was very active in her church and was a member of the choir and the Vessels of Purpose ministry. She also enjoyed reading, cooking, and going to the movies. She will be remembered for her kindheartedness and willingness to serve others. She was also very outgoing and enjoyed inspirational conversations with old and new acquaintances.

Katie was a native of Atlanta, GA. She is survived by her daughter, Breon Smith; her sister, Marie Burney; two nieces, Cheree Hawkins and Nicole Burney; and one nephew, Virgil Burney, Jr. She was a remarkable person and will be greatly missed by her family, friends, and colleagues.

Services were held on November 1, 2014, at the Sword of the Lord Ministries in East Point, GA.

Rita Varga, former Public Health Advisor with DTBE's Field Services and Evaluation Branch, died on December 3, 2014. Rita had retired from CDC on February 27, 2009, with 23 years of service to CDC.

Rita began her Civil Service career in February 1986 as a co-op in CDC's Sexually Transmitted Disease program starting in Indianapolis, IN. Following assignments in Fulton County, GA, Boston, MA, Chicago, IL, and Los Angeles, CA, Rita transferred to DTBE in 1994 with an assignment as the Training Coordinator in New York City. Rita continued to work with the NYC

PHA cohort until they were well on their way to successful careers.

In 1999, Rita transferred to Atlanta as the Training Coordinator for the DTBE Field Services Branch. In addition to those responsibilities, she worked as the headquarters member for the Field Staff Work Group. The group is dedicated to helping field staff workers remain up to date about what is happening at the CDC "mother ship."

Rita was an active member of the Field Staff Planning Work Group, a center-wide advisory group that coordinates field staff concerns with other CDC entities. Among her other associations, Rita was a long-time member of the TB Notes team as well as the former DTBE awards committee. An active member of the Watsonian Society, Rita was that group's newsletter editor starting in 2002.

Prior to her federal service, Rita was a dedicated science teacher for 14 years in New Jersey, where she taught biology, chemistry, earth science, and physics to high school students. Although she enjoyed teaching, she wanted to expand her horizons and see the world, or at least the United States, and did so with CDC.

After retirement, Rita remained in the Atlanta area. She loved gardening, crafting, and shopping. She always thought of others and was generous in spirit and in action. She had a can-do attitude about everything that crossed her path. Rita knew how to laugh and see the lighter side even in dark situations. Her perseverance in seeing things through to completion will be greatly missed. Rita loved her career with CDC, and she in turn was highly regarded by those who knew her and worked with her.

A memorial service will be held December 21, 2014, in Lawrenceville, Georgia.

§

## CALENDAR OF EVENTS

January 22–27, 2015

Host Response in TB (J3)

Santa Fe, NM

Keystone Symposia

<http://www.keystonesymposia.org/index.cfm?e=Web.Meeting.List&tab1>

February 23–26, 2015

Conference on Retroviruses and Opportunistic Infections (CROI)

Seattle, WA

CROI and the International Antiviral Society-USA (IAS-USA)

[www.croi2014.org/](http://www.croi2014.org/)

February 26–28, 2015

19th Annual Conference of the UNION — North American Region

Vancouver, Canada

[http://www.bc.lung.ca/association\\_and\\_services/union.html](http://www.bc.lung.ca/association_and_services/union.html)

April 15–18, 2015

Denver TB Course

Denver, CO

National Jewish Health

<http://www.nationaljewish.org/tbcourse>

April 20, 2015

California TB Controllers Association (CTCA)

Business Meeting

Sacramento, CA

CTCA

April 20–24, 2014

Epidemic Intelligence Service (EIS) Conference

Atlanta, GA

CDC

April 22, 2015

Curry Training for Health Care Workers

Sacramento, CA

CTCA

May 15–20, 2015

American Thoracic Society (ATS) International Conference

Denver, CO

<http://thoracic.org/>

May 18–21, 2015

APHL Annual Meeting and 9th Government Environmental Laboratory Conference

Indianapolis, IN

<http://www.aphl.org/conferences/Pages/default.aspx>

June 9–11, 2015

2015 National TB Conference: “Managing TB in a Global Society”

Pre-meetings June 8, 2015; Post-meetings June 11 and 12, 2015

Grand Hyatt Atlanta in Buckhead  
Atlanta, GA

August 24–26, 2015

International Conference on Emerging Infectious Diseases (ICEID) Conference

Atlanta, GA

<http://www.iceid.org/>

September 14–17, 2015

Program Managers’ Course

Atlanta, GA

Contact: Molly Dowling ([mdowling@cdc.gov](mailto:mdowling@cdc.gov))

September 26–29, 2015

American College of Epidemiology Annual Meeting

Atlanta, GA

American College of Epidemiology

<http://www.acepidemiology.org/content/save-date-ace-2015-annual-meeting>