



***US Partner in the Global Stop  
TB Partnership***

December 19, 2012

**Please pass this on to your colleagues who are interested in TB elimination.** If you wish to receive these messages at a different e-mail address, or if you no longer wish to receive these messages, please reply to [setkind@stoptbusa.org](mailto:setkind@stoptbusa.org).

**WASHINGTON UPDATE**

Thanks to Nuala Moore for the following updated information. She is a Senior Legislative Representative in the American Thoracic Society Washington Office:

**Domestic Funding Update**

We are all waiting for Congress to address the “fiscal cliff” and the related tax issues and budget cuts. If Congress and the President do not reach an agreement, across the board cuts due for CDC and USAID in 2013 would automatically be instituted on January 2, 2013. This would mean deep cuts for TB domestically and globally. Most observers think the Congress will come up with something before they leave for the holiday break. The thinking is that they will address the pending cuts and set a date for a new agreement for sometime in January. The scheduled January 2013 cuts would mean an 8.2 cut for CDC and USAID and this would obviously have a very significant effect.

CDC and other government agencies are currently funded through a continuing resolution until March 2013. The Congress may pass another continuation resolution for the rest of 2013 but no one is sure about this yet. For the current continuation, TB funding is frozen at last year’s \$140 million level.

Another issue is that there will be new House Appropriations Committee members and a subcommittee chair in January. The current Chair of the Labor, health, and Human Services, Education and related Services Subcommittee, Montana’s Denny Rehberg was defeated so there will be a new chair. Possibilities include Florida’s Rep Bill Young, Texas Rep John Carter from Austin, and Louisiana’s Rep Rodney Alexander. There will also be three new members on the subcommittee.

The Senate Health subcommittee will remain essentially the same. The Senate usually makes leadership and assignment decisions in January.

---

**RESOURCES**

**FROM THE CENTERS FOR DISEASE CONTROL (CDC):**

**Five sites selected to serve as tuberculosis (TB) Regional Training and Medical Consultation Centers (RTMCCs) starting January 1, 2013.**

The new sites are: Southeastern National Tuberculosis Center (SNTC) in Gainesville, Florida; Curry International Tuberculosis Center (CITC) in San Francisco, California; New Jersey Medical School Global Tuberculosis Institute (GTBI) in Newark, New Jersey; Heartland National TB Center (HNTC) in San Antonio, Texas and Mayo Center for Tuberculosis in Rochester, Minnesota.

The primary purpose of the new RTMCCs is to serve as centers of excellence for TB Programs within their geographical region through the following activities: Providing training and technical assistance to increase human resource development; Developing TB educational materials and products; and providing medical consultation to TB Programs and medical providers.

**TB 101 for Health Care Workers**

[TB 101 for Health Care Workers](#) is a Web-based course designed to educate health care workers about basic concepts related to TB prevention and control in the United States. The target audience for the course includes newly hired TB program staff and health care workers in areas related to TB (such as individuals who work in correctional facilities or HIV/AIDS clinics). This course was developed in partnership with: Curry International Tuberculosis Center; Heartland National Tuberculosis Center; New Jersey Medical School Global Tuberculosis Institute; and the Southeastern National TB Center.

**FROM THE NATIONAL TB CONTROLLERS ASSOCIATION (NTCA):**

**Model Duty Statements** The NTCA/National TB Nurses Coalition Workgroups for Public Health Workforce Development in TB Programs have developed four model duty statements: TB Nurse Consultant Competencies (for the state or regional level nurse); TB Nurse Case Manager Competencies (for the local level nurse); Public Health TB Corrections Liaison; and Communicable Disease Investigator. To see these Duty Statements visit the NTCA website [www.tbcontrollers.org](http://www.tbcontrollers.org) If you have questions about the statements or comments, or tools to share, please email Ellen Murray at [ellen.murray@medicine.ufl.edu](mailto:ellen.murray@medicine.ufl.edu)

**FROM DAVID BRYDEN, TB ADVOCACY OFFICER FOR RESULTS**

**Interview with Dr. Dalene von Delft, MDR-TB patient**

Dr. Dalene von Delft had a choice between dying or going deaf, and that was a choice only if the arduous treatment she was undergoing for drug-resistant tuberculosis worked. The South African pediatrician had contracted a resistant strain of the disease caring for patients, and the only potentially effective treatment was showing one of its predictable and lasting side effects of hearing loss. Although this could end her ability to use a stethoscope, and thus effectively end her career as a doctor, she was better off than many in her country who had run out of treatment options altogether. Then she got a third choice when she became one of only a handful of South Africans to get access to bedaquiline, a new type of treatment for tuberculosis. Cured of tuberculosis and her hearing loss arrested, she has returned to her career. The very different experiences of other multi-drug resistant tuberculosis patients who do not have access to bedaquiline and for whom existing available treatment is inadequate, are among the reasons tuberculosis treatment advocates are

hailing the vote of a U.S. Food and Drug Administration panel earlier this week. For more on Dr. von Delft's experience, see [this interview](#) .

### **Interviews with nurses on the front lines of TB**

Tania Monteiro: For many people, tuberculosis is a dirty word associated with poverty and poor living conditions. And when a patient is contagious, there is a risk to others. All of this can lead to TB patients being treated with less than the love and concern they need to stick with the long, difficult course of treatment and get better. What can be done about it? Frontline health workers, especially the nurses who confront serious personal health risks by working in a TB unit, can tell us a lot about what leads to stigma about TB and what solutions there may be. Tania Monteiro is a nurse, and trainer of nurses, from Portugal who recently contracted tuberculosis and, after a difficult fourteen months of treatment, was cured. In this interview she talks about why she found her diagnosis hard to accept and what it was like to suddenly find herself a patient. She speaks movingly about why patients need not only medication but also care, support, and information.

<http://www.action.org/blog/post/videos-nurses-on-the-front-lines-of-tb>

Gini Williams: Gini Williams is a nurse who is the TB Project Director at the International Council of Nurses. In this interview from November 2012 she addresses stigma about TB among nurses, what can be done about in order to improve care, and the importance of involving nurses in decision-making. <http://youtu.be/jyXJnSr5Lko>

Carrie Tudor: Finally, the risks faced by health care workers (and patients) in South Africa - and what might be done about it - are explored by nurse and doctoral candidate Carrie Tudor in this talk:

[http://uwclh.conference2web.com/content/1001/details?from\\_view=all&view\\_address=search%3Dtudor%26sessions%3D179](http://uwclh.conference2web.com/content/1001/details?from_view=all&view_address=search%3Dtudor%26sessions%3D179)

### **FROM MEDECINS SANS FRONTIERES (MSF);**

#### **a video on children affected with MDR-TB.**

This video highlights the dire plight of children we are treating for MDR-TB in Tajikistan.

"Patients with tuberculosis must undergo lengthy, arduous treatment regimens in the best of times. When stricken with multidrug-resistant tuberculosis, or MDR-TB, however, the road back to health is even more difficult. The most neglected are children living with MDR-TB. VII Photo's Ron Haviv visited MSF's pediatric MDR-TB program in Tajikistan, one of Asia's poorest countries, where the disease is indeed spreading at an alarming rate. Through the experience of an MSF nurse trying to care for children suffering with the disease, Haviv documents this new and very dangerous medical front line. <http://vimeo.com/album/2183997/video/55436021>

#### **More about children with TB:**

### **FROM PUSHPEEP MISHRA**

**"Need for New Drugs for Tuberculosis: Little Stars with TB Scars"**

Tuberculosis is treatable yet a deadly disease. Very little effort has gone towards finding better cure. The recent drugs for TB are over 40 years old and have several side effects during the treatment. Tuberculosis affects adults as well as children. The treatment procedure is very long for both. Adults can bear with the side effects of the drugs and can sustain the prolonged treatment procedures. Innocent children don't realize the seriousness of the disease. They refrain from consuming these drugs, even if they consume these drugs may show severe side effects. Several children recover very well from the treatment procedures but the physiological & psychological scars from the treatment remains with them throughout their life. The unlucky children don't even survive the treatment procedures due to high toxicity of the drugs. All the above mentioned problems demand a new drug for TB. We made this film to give voice to the young patients who can't speak about their problems. We interacted with their doctor, family members, and friends. Here, they all speak about challenges faced by little ones during and after the treatment procedures. <http://youtu.be/56xX092B8rM>

#### **FROM ADVOCATES FOR HEALTH INTERNATIONAL:**

##### **“Take That TB”**

A new patient-centered website - [www.takethattb.com](http://www.takethattb.com) has been developed. The purpose is to support persons affected by Tuberculosis (TB), and to provide a vehicle to advocate for resources, and patient needs. The website provides a platform where patients on treatment and former patients interact to break the circle of silence, shame and isolation. Patients and their families can use the website to exchange of information and share their own, unique experiences and strategies for dealing with TB.

---

#### **MEETINGS, CONFERENCES AND EVENTS**

#### **FROM THE HEALTH CARE FOR THE HOMELESS CLINICIANS, NETWORK**

##### **2013 Outstanding Service Award: Nominations due January 2, 2013**

Every day, thousands of dedicated, skilled and passionate people in our communities are helping others who are without homes. All too often, this work goes unrecognized. You can change that today by nominating someone for the annual Outstanding Service Award. This award recognizes a clinician working in the health care for the homeless field who has made a significant contribution to improving the health and quality of life of homeless people. The Chair of the HCH Clinicians' Network will present the Outstanding Service Award during the National Health Care for the Homeless Conference & Policy Symposium in Washington, DC, in March. The award recipient can be an HCH Clinicians' Network member, a Respite Care Providers' Network member, or a clinician you admire who is currently unaffiliated with one of these membership groups. If someone has inspired you through their work, nominate them today.

WHO IS ELIGIBLE? Clinicians providing hands-on care to individuals and families experiencing homelessness; Clinicians from a broad array of disciplines: nurses, social workers, outreach workers, oral health providers, physicians, case managers, substance abuse specialists, mental health providers, health educators and many more; Current HCH Clinicians' Network Steering Committee

members are ineligible. WHAT ARE THE AWARD CRITERIA? The nominee must be a hands-on caregiver who has advanced the companion goals of ending and preventing homelessness; The nominee must demonstrate vision and creativity in his/her work to improve the health and quality of life of homeless people; The nominee must go above and beyond his/her job description requirements. WHAT IS THE SELECTION PROCESS? The Network Membership Committee will review all nominations and select the award recipient based on the stated criteria; Network staff will notify all nominators of the results at least six weeks before the awards presentation;

View more details and nominate a clinician by January 2, 2013.

[www.nhchc.org/resources/clinical/hch-clinicians-network/awards/](http://www.nhchc.org/resources/clinical/hch-clinicians-network/awards/)

### **2013 National Health Care for the Homeless Conference & Policy Symposium, Washington, D.C., March 14-16, 2013**

Health Care for the Homeless providers will gather at the nation's capital to learn from their peers and other leaders and HCH advocates. Conference attendees will have access to dozens of accredited workshops, professional networking opportunities, engaging presentations, rejuvenating social encounters, and inspiring plenary sessions with federal officials and leaders in the HCH field. Pre-Conference Institutes will be held on Wednesday, March 13. The National Health Care for the Homeless Conference is organized by HCH professionals for HCH professionals, including clinicians, support staff, administrators, board members, and consumers of HCH services. It is also of value to others who provide health care and support services to homeless people as well as government officials and advocates. [Registration](#) [Conference Schedule and Workshop Descriptions](#)

### **FROM TREATMENT ACTION GROUP (TAG)**

#### **A Silent Crisis: Tuberculosis Drug Shortages in the U.S.**

Each year, over 10,000 Americans get TB. TB programs nationwide struggle to access drugs to treat these patients, especially those with drug-resistant TB. Expensive medicines and nationwide shortages are impacting cash-strapped state and city TB control programs, leading to further drug resistance, burdens on staff, increased pain and suffering and even unnecessary deaths.

In January, 2013, TAG will be convening an important meeting with congressional and civil society advocates, State TB controllers and key stakeholders from CDC, FDA and industry to engage in a consultation about addressing the TB drug shortage crisis in the U.S. and abroad. The event is co-sponsored by TAG, PATH, Center for Global Health Policy, American Thoracic Society and RESULTS.

### **FROM THE NORTH AMERICAN REGION OF THE IUATLD**

#### **Annual North American Union meeting scheduled for February, 2013 in Vancouver**

TB: the Air We Share", the 17th Annual Conference of the Union-North America Region is pleased to announce that registration is now open. The conference is taking place on February 28 - March 2, 2013 at the Sheraton Vancouver Wall Centre Hotel in Vancouver, BC, Canada. Deadline for early registration is on December 31, 2012. Download forms below by clicking on the links: [Conference Brochure](#) [Preliminary Program \(as of December 2012\)](#) [Venue](#) [Registration Form](#)

## **FROM CDC:**

**World TB Day, March 24<sup>th</sup>, 2013:** Each year, we recognize World TB Day on March 24, often with a variety of activities leading up to the official day. This annual event commemorates the date when Robert Koch announced his discovery of the bacillus that causes tuberculosis (TB). Around the world, TB programs, non-governmental organizations, and others take advantage of the increased interest World TB Day generates to describe their own TB-related problems and solutions, and to support worldwide TB control efforts. For the second year, CDC has adopted the global Stop TB Partnership's World TB slogan, *Stop TB in my lifetime*. This slogan goes with the theme of calling for a world free of TB. The slogan and theme encourage people all over the world to make an individual call for the elimination of TB, and say what changes they expect in their lifetimes. This two-year campaign also allows us to build upon the messages and resources developed during the last World TB Day. In the next few months, DTBE will be developing communication products for use in your own 2013 World TB Day activities. As March 24 falls on a Sunday in 2013, this provides an opportunity for a full week of activities leading up to the official day. For examples of past World TB Day events, links to planning resources, fact sheets, posters, and other materials that may be of assistance to you in your World TB Day activities, please visit the World TB Day section on the DTBE Website at <http://www.cdc.gov/tb/events/WorldTBDay/default.htm> This webpage will continue to be updated with 2013 World TB Day information.

## **FROM NATIONAL JEWISH MEDICAL AND RESEARCH CENTER**

### **The 50th Annual Denver TB course April 10-13, 2013 and October 9=12, 2013, Denver, Colorado**

Since the introduction of effective chemotherapy, many changes have come about in the management of tuberculosis. Most important have been the shift from sanatoria-based to general hospital and clinic-based treatment and the knowledge that active disease can reliably be prevented among those who are latently infected. With the development of effective drugs for TB, the significant advances in bacteriology, and increased knowledge about the treatment of latent TB infection, the approach to tuberculosis control has become increasingly sophisticated. The purpose of this course is to present this body of knowledge to general internists, public health workers, infectious diseases and chest specialists, registered nurses, and other health care providers who will be responsible for the management and care of patients with tuberculosis.

### **[The Denver TB Course - National Jewish Health](#)**

## **FROM THE AMERICAN THORACIC SOCIETY (ATS)**

### **American Thoracic Society International Conference in May, 2013 in Philadelphia**

This conference will be held from May 17<sup>th</sup> to 22<sup>nd</sup>, 2013. The programs will offer the latest information on clinical, basic and translational science in pulmonary, critical care and sleep medicine. With more than 500 sessions, 800 speakers, and 5,300 original research abstracts and case reports, ATS 2013 invites attendees to learn about an exciting array of topics in adult and pediatric pulmonary, critical care, and sleep medicine, or to concentrate on a specific clinical or scientific interest. Philadelphia is the birthplace of American medicine and a city that continues to expand the frontiers of science and health through its world-renowned biomedical institutions. While registering for ATS 2013, sign up for the Fifth Annual ATS Foundation Research Program Benefit. It's a fun way to

kick off the International Conference and network with colleagues. The benefit will also honor Gerard Turino, MD, the recipient of the 2013 Breathing for Life Award. During the third week of January, full ATS 2013 program information and registration for Postgraduate Courses, Sunrise and Meet the Professor seminars, the Thematic Seminar Series, and workshops will be available at [conference.thoracic.org/2013](http://conference.thoracic.org/2013). For more information about the International Conference, please [click here](#). You may also email [conference@thoracic.org](mailto:conference@thoracic.org). If you experience a technical problem while registering, please call [866-635-3585](tel:866-635-3585) or email [thoracic@xpressreg.net](mailto:thoracic@xpressreg.net).

## **FROM THE ASSOCIATION OF PUBLIC HEALTH LABORATORIES (APHL)**

**APHL 8th National Conference on Laboratory Aspects of Tuberculosis - San Diego, CA August 19-21, 2013**

[www.aphl.org/conferences/pages/default.aspx](http://www.aphl.org/conferences/pages/default.aspx)

---

## **HIGHLIGHTED TB ARTICLES/REPORTS**

### **FROM THE ATS WASHINGTON LETTER**

#### **FDA Panel Grants Expedited Approval of New Drug to Fight MDR-TB**

The U.S. Food and Drug Administration (FDA) approved expedited review of bedaquiline, a new drug to treat multi-drug resistant TB. Developed by Johnson and Johnson's Janssen Research and Development, bedaquiline is the first new TB drug from a novel drug class to be approved by the FDA in nearly 50 years. The World Health Organization (WHO) estimates that MDR-TB is on the rise globally, with about 400,000 people currently infected. Less than ten percent of this number receives appropriate treatment. The current MDR-TB treatment regimen is harsh, with high risks of organ toxicity, hearing loss, psychosis and other effects. In the U.S, treatment for MDR-TB is extremely expensive, costing between \$200,000–\$500,000 per case.

The accelerated FDA process for bedaquiline will allow temporary approval based on less clinical data than is usually required for traditional drug approval. The FDA's Anti-Infective Drugs Advisory Committee reviewed efficacy and safety data for bedaquiline and this week voted unanimously in favor of the efficacy of the drug. Committee members were more divided over the drug's safety, with some members stating that although they found significant gaps in safety data, compared to existing MDR-TB drugs, bedaquiline is relatively safe. Johnson and Johnson plan to make the drug available only to the CDC and state public health agencies so that it is used exclusively for the treatment of MDR-TB.

### **PEPFAR Blueprint**

Secretary of State Hillary Clinton unveiled the *PEPFAR Blueprint*, which outlines a framework for federal efforts to help achieve an AIDS-free generation. The blueprint identifies "smart investments" that PEPFAR ( President's Emergency Plan for AIDS Relief) will prioritize based on evidence that indicates they will save the most lives and specifies six action steps. The first action step is "Target

HIV-associated tuberculosis and reduce co-morbidity and mortality.”

Noting that TB remains the most common cause of death among people living with HIV in sub-Saharan Africa, the blueprint specifies the steps needed to end HIV-associated TB among people living with HIV, which include a combination of widespread ART coverage, early identification and treatment of TB, isoniazid preventive therapy (IPT), and infection control activities. The PEPFAR Blueprint’s inclusion of a TB-HIV-specific action step is an important indication of what will hopefully be an increased focus by the federal government on addressing HIV-TB.

### [PEPFAR Blueprint: Creating an AIDS-free Generation](#)

#### **FROM THE WHO STOP TB PARTNERSHIP**

#### **United States Government Announces \$11 Million in Additional Support for Rapid TB Test in 14 Countries December 4, 2012**

The United States President’s Emergency Plan for AIDS Relief (PEPFAR) announced an additional \$11 million to provide up to 150 Xpert® MTB/RIF instruments and 450,000 test cartridges in 14 high-burden countries across sub-Saharan Africa and in Burma. The Cepheid Xpert® MTB/RIF assay is a new fully automated molecular diagnostic test for tuberculosis disease (TB). It can detect Mycobacterium tuberculosis DNA and mutations associated with rifampicin resistance directly from sputum specimens in less than 2 hours. The assay is more sensitive for detecting TB than sputum-smear microscopy with similar accuracy as culture on solid media. The ability of the Xpert assay to detect smear-negative TB provides a significant advantage over smear microscopy, especially for persons with TB who are also HIV-infected. This support, to be implemented through USAID and CDC, will accelerate access to Xpert® MTB/RIF in countries with a high burden of TB/HIV co-infection. Additionally, a portion of this funding will train health workers on proper application of the device and support ministries of health to integrate its usage into national laboratory strategies. TB is the leading cause of death among people living with HIV in Africa and greater access to this test offers a significant advance in the capacity of TB and HIV programs to diagnose TB quickly and help reduce TB transmission, the development of TB disease, and avoidable deaths.

The announcement comes on the heels of the November 29 launch of the PEPFAR Blueprint for an AIDS-free generation and in conjunction with the 1st annual meeting of the African Society of Laboratory Medicine in South Africa. The PEPFAR Blueprint, a document outlining America’s specific action steps toward creating an AIDS-free generation, highlights the importance of smart investments that save lives and using science to inform programming. PEPFAR’s ongoing support for roll out of Xpert® MTB/RIF is one such smart investment. U.S. Global AIDS Coordinator Ambassador Eric Goosby said, “The roll out of Xpert® MTB/RIF has brought us to the cusp of a revolution in TB diagnosis. As a clinician, I am thrilled about the promise of this technology to bring a rapid diagnostic closer to patients. Tackling TB/HIV co-infection is a high priority for PEPFAR and this funding plus up for Xpert® MTB/RIF reflects that commitment.” The additional resources announced today bring PEPFAR’s investments to-date in Xpert® MTB/RIF to more than 275 instruments in high-burden countries. Additionally, in August 2012, PEPFAR and USAID partnered with UNITAID and the Bill & Melinda Gates Foundation in an innovative public-private partnership to reduce the cost of Xpert® MTB/RIF cartridges by 40% (from \$16.86 to \$9.98).

#### **World AIDS Day statement by Dr Lucica Ditiu, Executive Secretary of the Stop TB Partnership**



This World AIDS Day there are hopeful signs to report. Last week the Joint United Nations Programme on HIV/AIDS (UNAIDS) announced that there has been a 13% reduction in TB/HIV deaths in the last two years. This is encouraging, but we are far from where we should be. TB remains the leading cause of death among people living with HIV. At the current rate of progress, and without tremendously accelerated efforts, the goal of reducing deaths from TB among people living with HIV 50% by 2015 - agreed to by UNAIDS and the Stop TB Partnership - will not be achieved. We know what should be done. Ideally, people should be offered "one stop service" for HIV and TB care. Every country can move in that direction through a tailored approach. TB programmes need to provide HIV testing; and HIV programmes should do TB screening and needed follow-up. And there should be active outreach into the population to offer both HIV testing and TB screening. I congratulate the many countries that are providing HIV testing in the context of their TB programmes. In 2011, more than two-thirds of TB patients in the African Region had a documented HIV test result.

However, I must challenge many of those same countries to urgently scale up their efforts to make TB services (screening, prevention, diagnosis, treatment) available through their HIV programmes. Today not nearly enough people living with HIV are receiving these services. I appeal to the entire HIV community to make this issue your own. You have called for zero new HIV infections, zero discrimination and zero AIDS-related deaths. You have also called for an AIDS-free generation via the new global AIDS blueprint. These aspirations will never be achieved without confronting TB and reaching with equal zeal for zero TB deaths and zero new TB infections. I call on all people in the TB and HIV communities to integrate their activism - just as we must integrate TB/HIV care.

#### **FROM AERAS:**

**A World Free of HIV and TB?** A World AIDS Day blog co-authored by Aeras' Jim Connolly and IAVI's Margaret McGlynn for the *Huffington Post*. The piece addresses the question of whether and when we will eliminate HIV and TB.

[http://www.huffingtonpost.com/margaret-mcglynn/a-world-free-of-hiv-and-tb-2221155.html?utm\\_hp\\_ref=world-aids-day](http://www.huffingtonpost.com/margaret-mcglynn/a-world-free-of-hiv-and-tb-2221155.html?utm_hp_ref=world-aids-day)

#### **FROM NIH NEWS:**

##### **NIH-funded trial launched to assess experimental TB drug**

A clinical trial will examine an investigational drug's early bacteria-killing activity in patients newly diagnosed with drug-sensitive pulmonary tuberculosis. The clinical trial — sponsored by the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health — is being led by researchers at the Tuberculosis Research Unit at Case Western Reserve University in Cleveland. The study to take place in Cape Town, South Africa, will enroll 75 men and women with TB ages 18 to 65, including individuals who are also infected with HIV but not yet taking antiretroviral treatment. Information about clinical trial NCT01516203 is available at <http://www.clinicaltrials.gov>.

#### **ARTICLES:**

**THE\_NETHERLANDS; BANGLADESH: "'e-Nose' Breath Test Detects TB"**  
**Healthcare Today (11.27.12)**

Researchers in the Netherlands and Bangladesh have developed an electronic nose, or e-Nose, to detect TB. They hope the device will replace conventional diagnostic methods, including laboratory cultures from a patient's sputum and chest X-rays. Laboratory cultures take weeks or months to develop, and they do not indicate whether the disease is drug resistant.

A seven-month pilot study was conducted in partnership with Bangladesh's National TB Control Program, using 230 individuals, some of whom were healthy and some who had active TB. The results showed the e-Nose to be easy to use, fast, highly sensitive, and specific. According to lead researcher Zeaur Rahim, of the International Centre for Diarrheal Disease Research, the device will be useful to people in places with a high TB burden. He also stated that the diagnostic process was risk-free to healthcare workers as they did not come into contact with patients' biological samples. The e-Nose has metal oxide sensors that detect volatile organic compounds in a sample of the air exhaled by the patient blowing into an airbag for the test. Computers analyze the results from the sensors and compare them with results for normal air. The device also senses traces of bacteria other than TB. The commercially available version of the tool, DiagNose, can reduce the cost of a TB test to US \$10, which is much lower than the cost of available diagnostic tests now. Dutch researcher Marcel Bruins of the e-Nose company stated that the company aims to market a user-friendly, low-cost TB-screening device for use anywhere in the world. The software can be adjusted for use in different parts of the world to accommodate TB strains that may vary greatly from place to place.

The study, "Diagnosis of Active Tuberculosis by E-Nose Analysis of Exhaled Air," was published online in Tuberculosis Journal (DOI: 10.1016/j.tube.2012.10.002).

**ROMANIA: "Tuberculosis Vaccine Sickens 115 Romanian Children; 50 Hospitalized"**  
**Examiner.com (11.25.12):: Jeannie Stokowski-Bisanti**

On November 23, the Stockholm-based European Center for Disease Prevention and Control reported that 115 Romanian children became ill from a TB vaccine manufactured in Denmark. Fifty of the children have been hospitalized since March with symptoms including swollen lymph nodes and abscesses. During a televised address on November 22, Romanian Health Minister Raed Arafat said that TB vaccinations would be halted until the cause of the side effects is determined. According to Nils Strandberg Pedersen, CEO of Statens Serum Institut, a Copenhagen-based unit of Denmark's health ministry and manufacturer of the vaccine, lymph node swelling is a "completely normal" side effect of the bacille Calmette-Guerin vaccine. He commented that abscesses are also seen as a side effect of the vaccine but could not say whether the number affected was above those normally seen.

**CANADA: "'Repurposed' Anti-Parasite Drug Shows Promise as New TB Treatment"**  
**Infection Control Today (11.26.12)**

Researchers at the University of British Columbia's (UBC) Department of Microbiology and Immunology associated with UBC's Centre for Tuberculosis Research and the Neglected Global Diseases Initiative found that a class of drugs used in developing countries to treat parasitic diseases has potential for use in treating TB. These drugs—in the avermectin drug family—have been considered ineffective against bacterial diseases, but during in vitro tests, they killed the bacteria that cause TB, including the drug-resistant strains. Santiago Ramón-García, a co-author of the study, stated that the drugs are cheap and routinely manufactured by drug companies, and since some of them are already approved for human use, the transition from laboratory to clinical use could be much quicker than usual. He noted that the drug concentrations effective in vitro indicate that drug

members of this family might be very valuable in treating multi-drug-resistant TB, which at present has a very low probability of being cured. Additional research is necessary to determine the drugs' clinical application for treating TB. The researchers are working with animal models to find the effective dosage levels and regimens. They will also study if these drugs can be combined with others to create more effective therapies. At present, three members of the family of avermectins—ivermectin, selamectin, and moxidectin—are bactericidal against mycobacterial species including multi- and extensively drug-resistant *Mycobacterium tuberculosis*. Ivermectin is approved for clinical use in humans, and selamectin and moxidectin are approved for veterinary use. Moxidectin recently passed clinical trials for human use.

The Canadian Institute of Health Research, the British Columbia Lung Association, Grand Challenges Canada—Stars in Global Health, and the National Institutes of Health funded the research. The study, "Anthelmintic avermectins kill *M. tuberculosis*, including multidrug resistant clinical strains," was published ahead of print in the journal *Antimicrobial Agents and Chemotherapy* (2012; doi:10.1128/AAC.01696-12).

**NIGERIA: "UN Begins Move to Reduce HIV-Associated Tuberculosis Deaths in Nigeria, Ethiopia, Others" Leadership (Nigeria) (11.28.12):: Abiodun Oluwarotimi**

The United Nations recently launched an initiative to reduce the TB deaths of HIV-infected persons by half in Nigeria, Ethiopia, India, Kenya, Mozambique, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe as part of an effort to increase the global fight against HIV/TB co-infection. The agreement was made between the Joint UN Program on HIV/AIDS (UNAIDS) and the Stop TB Partnership to achieve the 2015 goal of reducing TB deaths in HIV patients by 50 percent—or the equivalent of 600,000 lives. Michel Sidibé, UNAIDS director, said that it is possible to stop people from dying of HIV/TB co-infection by the integration and simplification of HIV/TB services. Member states agreed at the 2011 UN High-Level meeting on AIDS on halving TB/HIV deaths by 2015, which is also the target year of the UN's Millennium Development Goals. Preventative treatments would focus on the previously listed 10 countries, where three-quarters of TB/HIV fatalities occur. Dr. Lucica Ditiu, executive secretary of the Stop TB Partnership, stated that through a new agreement, UNAIDS and the Stop TB Partnership have committed to an agenda of action, engaging new partners and assisting the most heavily affected countries to integrate HIV/TB services and create action plans. In spite of greater access to antiretroviral therapy for persons with HIV and a 13 percent reduction in TB-associated HIV deaths over the past two years, TB remains the leading cause of death in HIV patients. People with HIV are 20 to 30 times more likely to develop active TB than those without HIV, and pregnant women and children are especially at risk. In 2011, 25 percent of AIDS-related deaths were caused by HIV-associated TB disease. Sidibé urged the scaling up of services in affected countries through concerted joint efforts. He noted that the 2015 goals are clear and that they can be made to happen.

**UNITED STATES: "Many U.S. Children with TB Have International Connections" Healio (12.07.12)**

National Surveillance System data analyzed by Centers for Disease Control and Prevention's (CDC) Division of Tuberculosis Prevention indicated that 75 percent of the 2,660 children diagnosed with TB in the United States from 2008 to 2012 were either born outside the United States or had travelled outside the US borders. More than half of these cases were adolescents or older. The report also included data from 2009 on parents or guardians who had international ties. Many of the children

with TB—66 percent—had parents who were born outside of the United States. CDC’s report emphasized the effects of the global epidemic of TB on children and adolescents within the United States. The report emphasized the cost-effectiveness and prevention benefits of TB screening. CDC researchers, Carla A. Winston, PHD, MA, and Heather J. Menzies, MD, MPH, recommended that health care providers assess children’s risk for TB during routine care visits. In addition, as children enter a low-prevalence area, they should be screened for latent TB infection to prevent acute TB infections, advised Andrea T. Cruz, MD, of the TB Initiative of Texas Children’s Hospital in Houston.

The study, “Pediatric and Adolescent Tuberculosis in the United States, 2008–2010,” was published in the journal *Pediatrics* (2012;130(6):e1425-1432).

**INDIA: "Government to Provide Free Tuberculosis Drugs at Chemist Shops and Corporate Hospitals" *The Economic Times* (12.13.12)**

The government of India will provide free TB medicines to all “chemist shops and corporate hospitals” in the country to encourage TB-infected persons to adhere to treatment. India is adopting the strategy to make it easier for TB patients to get their medicine and complete treatment on schedule. TB patients who do not follow the prescribed treatment regimen are more likely to develop multi-drug resistant TB. In May 2012, the government of India declared TB a “notifiable disease,” requiring all doctors and other health care providers to report all cases to the government. Under the free TB drug plan, each patient diagnosed with TB will register with the Revised National Tuberculosis Control Program, which will issue the individual a unique identifier with all TB prescription and dosage information. TB-infected patients will be able to obtain free treatment at any chemist shop or hospital because their treatment information will be available online. India’s free TB treatment program will be rolled out by March, 2013. Director General of Health Services Jagdish Prasad, MD, stated that efforts are also underway to develop a standardized model for directly observed therapy for the program, since some private practitioners do not currently use the schedule approved by the World Health Organization. TB causes more than 16 percent of deaths among adults aged 15–49 in India, and there are about 10,000 cases of multi-drug resistant TB each year in India.

---

**JOB OPPORTUNITIES**

**Research Assistant for TB Epidemiologic Studies: Public Health Nurse, Nashville, Tennessee**

Description: Under the guidance and supervision of the TB Elimination Program Manager and Principal Investigator, the Research Assistant is responsible for assuring that the integrity and quality of the clinical research is maintained. Plans and implements recruitment procedures for potential participants, manages enrollment of the study from screening to study completion, ensures compliance with protocols and overall research and clinical objectives, manages study-related procedures as required by the protocol, maintains accurate and timely documentation and maintains communication with the sponsor. Related responsibilities include provision of nursing services including application of TB skin tests and venipuncture, shipment of specimens, completion of chart reviews, and preparation of Institutional Review Board related forms/proposals.

Requirements: Associate degree or Diploma and Bachelor's degree in another discipline, and four (4) years nursing experience; or Bachelor's degree in Nursing and three (3) years nursing experience, two (2) years of which must have been public health related; or Master's degree from a state approved school of nursing or school of public health and a minimum of three (3) years nursing experience, preferably in public health nursing. Licensed as a Registered Nurse in Tennessee. Must successfully pass a Respiratory Mask Fit Test. Requires use of own transportation on the job.

Preferences: Ability to work with diverse populations; Strong organizational skills; Excellent written and oral communication skills; Flexible working hours (evening and weekend as necessary) including travel to bi-annual mandatory meetings; Ability to function with a high level of independence and exercise sound judgment in decision making; Bilingual (English and Spanish).

Mail, fax, or e-mail a resume to: Metro Public Health Department, Attn: Lynn Harbison / TB Research Program, 311 23rd Avenue North, Nashville, TN 37203-1511 E-mail: [lynn.harbison@nashville.gov](mailto:lynn.harbison@nashville.gov)  
Fax: (615) 340-5665 Phone: (615) 340-8644