

From: **Stop TB USA** *

*Formerly the National Coalition for Elimination of Tuberculosis (NCET)

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Do you have colleagues, policy makers, friends in the press, or other acquaintances who believe the disease is no longer a problem? Share the following reports with them.

Most of these 44 TB-related reports (below) from 18 different states, the District of Columbia, and Canada were taken from the Centers for Disease Control's TB-Related News and Journal Items Weekly Update and they all occurred in just the past 3 months (April –June, 2009). These are not all the TB reports and articles - just those that were identified. Many of these reports describe problems that present significant challenges for health departments.

CALIFORNIA: RNs Protest Cuts to Public Health, Pediatrics, TB Clinic, and Other Outpatient Services at San Joaquin County; Medical News Today; June 24, 2009.

San Joaquin registered nurses Wednesday will protest proposed cuts in public healthcare services that they say will hit especially hard against children and families in San Joaquin County. The RNs, members of the California Nurses Association/NNOC, will speak out at a county hearing on proposed budget cuts. Among the items being considered by county officials are closure of a pediatric care unit at San Joaquin General Hospital, reduced services at the Bret Harte Clinic which threatens to increase the spread of tuberculosis, and cuts in pharmacy services.

WISCONSIN: Carb Synthesis Sheds Light On Promising Tuberculosis Drug Target

ScienceDaily (June 30, 2009) — A fundamental question about how sugar units are strung together into long carbohydrate chains has also pinpointed a promising way to target new medicines against tuberculosis. Working with components of the tuberculosis bacterium, researchers from the University of Wisconsin-Madison identified an unusual process by which the bacterium builds an important structural carbohydrate. In addition to its implications for human health, the mechanism offers insight into a widespread but poorly understood basic biological function — controlling the length of carbohydrate polymers. "Carbohydrate polymers are the most abundant organic molecules on the planet, and it's amazing that we don't know more about these are made," says Laura Kiessling, a professor of chemistry and biochemistry at UW-Madison. The research team focused on an enzyme called GlfT2 that is responsible for building a critical carbohydrate component of the TB bacterial cell wall.

MISSISSIPPI: TB tests planned for jail at Raymond; Contributor: Kim Mckeand; NBC 15O Online; June 18.

RAYMOND, Miss. (AP) - State health officials are conducting follow-up tests on 25 Hinds County inmates after two cases of the infectious lung disease tuberculosis were found at the Raymond jail this spring. The Mississippi State Department of Health in May tested 800 inmates at the detention center and penal farm who came in contact with the two inmates at the Hinds County Detention Center. No new active cases of the disease were found, but 25 inmates returned positive skin tests, which means they carry the bacteria. State epidemiologist Dr. Mary Currier said the health department will begin testing jail and penal farm employees in the next couple of weeks. The department also is educating jail staff to recognize tuberculosis symptoms so that inmates with symptoms can be properly isolated and tested. Information from: The Clarion-Ledger.

WASHINGTON STATE: Tuberculosis remains a threat in a global health city; June 15; By Dr. David Fleming; Special to The Times.

The King County incidence of tuberculosis is 50 percent above the national average, writes guest columnist Dr. David Fleming. Though inroads have been made in prevention and treatment, now is not the time for complacency as local health funding remains in jeopardy.

Dr. David Fleming is director and health officer for Public Health — Seattle & King County. IF you were born in Seattle in 1909, the prevalence of communicable diseases such as tuberculosis would have led the smart gambler to bet against you ever celebrating your 45th birthday. Today, a century later, the smart bet now is that you will eventually see a birthday cake with far more candles than that. With proper sanitation, clean water, and antibiotics and vaccinations to prevent infectious diseases, our life spans have nearly doubled. Today, we face new challenges from noninfectious threats like tobacco and obesity. Our century of successful work against TB is part of why we are living longer today. As a consequence, some would argue that we should put TB in the rearview mirror and move on to new challenges. Do not listen to them. Only constant, active effort is keeping people in Seattle free from TB and living long enough to be affected by our new health challenges. In King County, more than 100,000 people are infected with TB. And that number is growing. Seattle's emerging reputation as a global crossroads, for all its wonderful benefits, makes our residents more likely to have the disease that infects one-third of the globe. Our local TB rate is 50 percent above the national average, and more than 80 percent of those we identify with active disease are born outside the United States. Our local TB-control program is our community's front-line defense against this disease, working to ensure that people are diagnosed and treated and their contacts at highest risk of infection are identified and screened. This work is intensive. In 2008, our program evaluated and tested hundreds of contacts in dozens of investigations at work sites, schools, medical facilities and homeless-congregate settings. During the year, more than 2,800 clients make nearly 12,000 visits to our clinic to treat their infections. This hard work has brought us success. Last year, in our highly diverse and vulnerable group of patients with active TB, no one discontinued or refused to complete TB treatment. And our prevalence of multi-drug resistance is very low, currently hovering below 2.5 percent. So, some would argue even though our fight against TB remains an active battle, we can rest easy because we are winning. Again, do not listen. Unfortunately, we face a major setback, not from a new strain or old drugs, but from a lack of resources. Across the country, including here in King County, health departments are struggling to deliver essential services, including TB services, as deficits loom, dollars are cut and programs are eliminated. TB will take advantage when we drop our guard. In the early 1990's, the United States saw a resurgence of the disease as funding fell for TB-control activities. But if learning means changing behaviors, we have not yet learned the need for maintaining active public-health programs, including TB control. Public Health — Seattle & King County has cut our TB program twice in the past year — not because we do not know better, but because there is no public-health money to support it. Sadly, in these difficult economic times, cutting TB-control activities is not only bad health policy, it is also bad economic policy. The inevitable result of less detection and effective treatment for TB today is more disease in the future, as well as time-consuming and costly drug resistance. This year's Pacific Health Summit, which convenes in Seattle this week, ushers in a new era of opportunity for global TB prevention. More than 250 leaders from around the world will discuss the rapid emergence of multiple-drug-resistant TB as a major global-health threat. It is ironic that locally, in our city of increasing global health prominence, we face a crisis in delivery of proven TB-control measures because of a lack of financing. This state of affairs is an important reminder of our collective need to assure the integrity of the entire chain of discovery, development and delivery if the promise of new science and technology is to translate into better health. And, perhaps more sobering, we must acknowledge that the soundness of this chain is not just an issue in Sudan, Somalia and Sierra Leone, but in Seattle as well. *Dr. David Fleming is director and health officer for Public Health — Seattle & King County*

CANADA: Report finds gaps in health care for aboriginal kids; Wed. Jun. 24 2009 9:31 AM ET;
CTV.ca News Staff; CTVglobmedia.

A new report from UNICEF Canada paints a grim picture of the health issues faced by children in Canada's aboriginal communities. The 61-page report released on Wednesday finds that in areas such as infant mortality, immunizations and infectious diseases such as tuberculosis, aboriginal children are worse off than others. Nigel Fisher, president and CEO of Unicef Canada, said aboriginal children are the most disadvantaged in Canada.

OKLAHOMA: State health officials probe TB case in Cushing - The teenager's close contacts are being tested, officials say; Kim Archer, World Staff Writer, 6/17/2009.

A Cushing teenager with active tuberculosis has prompted a state Health Department investigation and testing for those who came into close contact with him. The agency was notified May 26 that the teenager had active tuberculosis and launched a routine contact investigation at his school, said Dr. Phillip Lindsey, a tuberculosis control officer with the Oklahoma State Department of Health. He would not specify how many people have been tested because they haven't completed the investigation. "This isn't anything terribly out of the ordinary," Lindsey said. Last year, 100 Oklahomans were diagnosed with active tuberculosis, prompting that number of investigations. So far this year, there have been 40 cases, he said. "Tuberculosis is hard to spread," Lindsey said. "It is never transmitted outdoors and is only transmitted with prolonged contact in close spaces." An estimated 150,000 Oklahomans are positive for tuberculosis, but they can't spread it because the disease is dormant, he said. Only 10 percent of those cases might become active tuberculosis, he said. "There is no need for panic," Lindsey said. "Tuberculosis is completely curable." He said he often has to remind physicians to check for tuberculosis in patients with prolonged coughs. Good public health practices, screening health-care workers, preventative therapy and effective drug treatment have reduced the number of cases dramatically in the United States for the last 50 years or more, Lindsey said. Worldwide, 9 million cases of tuberculosis are reported each year, resulting in 2 million deaths, he said. "It's an ancient disease," he said. "It's still out there. It's still prevalent in the world. Oklahoma has a really good public health program for tuberculosis."

WASHINGTON STATE: Companies work together on TB drugs; Sandi Doughton; Seattle Times; June 18.

After years of neglect, TB research is leading to an "onslaught of innovation," but drug companies need to collaborate to speed new medicines to those who need them, experts at a Seattle conference say. For the first time in more than 40 years, several promising tuberculosis drugs are in the pipeline — thanks to an influx of money from the Bill & Melinda Gates Foundation and others. But speeding those drugs to the people who need them will require unprecedented cooperation among drug companies, say TB experts meeting in Seattle this week. Because the bacteria that cause the deadly lung infection quickly evolve to dodge drugs, standard TB treatments hit the bug with several medications at once, said Dr. Tachi Yamada, chief of global health for the Gates Foundation. That means companies that normally compete will have to work together so their drugs can be tested in combination. "What's needed is a new regimen of three to four drugs ... that's more efficient and efficacious," Yamada said. Bill Gates met personally with the chief executives of more than a dozen drug companies in March to ask for their cooperation. The foundation also weighed in at a recent Food and Drug Administration (FDA) advisory-committee meeting to urge changes to rules that require drugs be tested one at a time. "The Gates Foundation is ... using their clout and resources to really make it known this is important to them," said Dr. Mel Spigelman, president of the Gates-funded Global Alliance for TB Drug Development (TB Alliance). Several drug-company officials are among the 250 experts from 25 nations participating in the Pacific Health Summit, focused on the growing problem of drug-resistant tuberculosis. Many companies are already working with the TB Alliance to test candidate drugs. The Johnson & Johnson subsidiary Tibotec announced Wednesday it will give the TB Alliance a royalty-free license to a new drug that worked well in early trials in people with resistant disease. Drugmaker Sanofi-Aventis will allow its most promising drug to be tested in combination with drugs from other companies, said Dr. Robert Sebagg, vice president of Access to Medicines at the French company. "It's not common to do this in the pharmaceutical industry," Sebagg

said. "But it's very important." Still, more collaborations and money are needed, Spigelman said. "Even with the resources pharma has brought to bear, we're still at the level of a drop in the bucket." Tuberculosis is a top killer, claiming nearly 2 million lives a year and infecting a third of the world's people. The standard treatment regimen requires patients to swallow pills every day for up to six months. When people stop taking medication too soon, infections can become resistant to multiple drugs. That's why the number of multidrug-resistant cases has swelled to nearly half a million a year. Though largely a problem of the developing world, tuberculosis spreads easily. An estimated 100,000 people in King County carry latent TB bacteria. Last year, 120 active cases were reported. Four new drugs have shown promising results in early tests, and five more are in earlier stages of development, said Dr. Peter Small, TB manager for the Gates Foundation. "We're looking at an onslaught of innovation."

OKLAHOMA: Payne County residents tested for tuberculosis; News Record; June 17, 2009; CUSHING, Okla. (AP).

Health officials are testing Payne County residents for tuberculosis after a Cushing High School student was diagnosed with the disease. Associate tuberculosis control officer Dr. Phillip Lindsey at the state Health Department says about 125 people who had contact with the student were asked to have skin tests for the disease.

MISSOURI: MU Employee with TB was Hired with It: June 10: KRCH NEWS.

Update: Health workers are in the process of notifying more than 200 people who may have had close contact with a University Hospital employee diagnosed with active Tuberculosis. KRCH news has learned the hospital employee had TB when he was hired years ago, but at the time he was not symptomatic or contagious. The employee was asked to undergo treatment at that time but decided not to because of possible side effects. A hospital spokesperson says the employee developed a cough over the winter but thought it was allergies. A test last week confirmed the employee had developed "active" tuberculosis and he was immediately taken off of his clinical duties. The hospital says it is going back several months to identify patients and co workers who had contact with the infected employee. It has not released the employee's name, citing privacy concerns. Original story: Administrators at Columbia's University Hospital announced that they have identified a health care worker with an active case of tuberculosis. MU Health Care Officials have begun taking steps to notify persons who had prolonged, close exposure to the infected worker. Preliminary tests are negative for several co-workers of the infected MU health care employee. Doctors diagnosed the infected employee with TB on Thursday. They waited until Monday to make their announcement to make sure they had all of the facts of the case in order. Doctors say the risk to most people in this case is low. Chief Medical Officer Dr. Les Hall said, "We have experts, fortunately, that we can partner with who have been down this road many times before in a variety of other circumstances helping individuals and health care systems work through things like this. As long as we use that expertise and make wise judgments at every step along the way, then we ought to be able to get through this while keeping our patients and our health care workers safe." Doctors found the active case of tuberculosis through routine testing. All MU Health Care employees are required to have TB skin tests at regular intervals. If a skin test is positive, doctors require further testing. If a chest x-ray is positive or active infection is found elsewhere in the body, the TB is considered active. The MU Health Care employee with TB is receiving medical treatment at University Hospital.

USA: Overseas Screening for Tuberculosis in US-Bound Immigrants and Refugees: New England Journal of Medicine: June 4, 2009; Yecai Liu et al.

The authors introduced the current study by noting that TB is the second-most common cause of death from infectious diseases in the world. In the United States in 2007, 57.8 percent of new TB cases were diagnosed in foreign-born persons. Among the foreign-born, the TB rate was 9.8 times higher than among US-born persons (20.6 vs. 2.1 cases per 100,000 population). "Annual arrivals of approximately 400,000

immigrants and 50,000 to 70,000 refugees from overseas are likely to contribute substantially to the TB burden among foreign-born persons in the United States,” the authors noted. CDC compiles information on overseas TB screening among US-bound immigrants and refugees, as well as on follow-up evaluation after their arrival in the United States. The researchers analyzed these data to study the epidemiology of TB among these persons. The data included results for 2,714,223 US-bound immigrants tested overseas between 1999 and 2005. Among these travelers, testing indicated 26,075 smear-negative TB cases (i.e., a chest radiograph was suggestive of active TB but sputum smears were negative for acid-fast bacilli on three consecutive days) for a prevalence of 961 cases per 100,000 persons (95 percent confidence interval [CI], 949-973), and 22,716 cases of inactive TB (i.e., a chest radiograph was suggestive of TB that was no longer clinically active) for a prevalence of 837 per 100,000 persons (95 percent CI 826-848). Among 378,506 refugees bound for the United States, smear-negative TB was diagnosed in 3,923 for a prevalence of 1,036 cases per 100,000 (95 percent CI 1,004-1,068), and inactive TB was diagnosed in 10,743 for a prevalence of 2,838 cases per 100,000 population (95 percent CI 2,785-2,891). “Active pulmonary TB was diagnosed in the United States in 7.0 percent of immigrants and refugees with an overseas diagnosis of smear-negative TB and in 1.6 percent of those with an overseas diagnosis of inactive TB,” the authors wrote. “Overseas screening for TB with follow-up evaluation after arrival in the United States is a high-yield intervention for identifying TB in US-bound immigrants and refugees and could reduce the number of TB cases among foreign-born persons in the United States.”

CANADA: Greyhound Passenger Prompts TB Warning; Toronto Star, May 29, 2009.

Health officials in British Columbia and Alberta, Canada, said a Greyhound bus passenger who traveled from Lethbridge to Kelowna the weekend of May 23 - May 24 has an active case of TB. The ill passenger took a bus from Lethbridge to Calgary and then transferred to another bus to Kelowna. Officials are asking people who traveled on the two buses to seek testing.

WASHINGTON, DC: TB Alliance Announces Four Drug Discovery Collaborations; Stop TB Partnership, May 27, 2009

At the recent Global Health Council Conference, in Washington, DC, the Global Alliance for TB Drug Development announced that four new drug discovery collaboration agreements had been signed. The four projects can potentially generate compounds active against drug-resistant TB and show promise to advance the science of TB drug development. The discovery partnerships include programs with the following: Anacor Pharmaceuticals, a biopharmaceutical company – developing small-molecule therapeutics derived from its boron chemistry platform; Colorado State University testing whether the inhibition of menaquinone biosynthesis, a key component of the energy generation system in *M. tuberculosis*, has the potential to eradicate the disease in vivo; the Institute of Microbiology (IMCAS), a member institute of the Chinese Academy of Sciences, discovering and developing novel anti-TB agents from natural sources; and New York Medical College exploring the type 1 topoisomerase (Topo 1) enzyme that facilitates the unwinding of DNA.

FLORIDA: Judge Orders State to Test DOE Workers for TB; Tallahassee.com, May 29, 2009, by Bill Cotterell.

Frank Sheffield, Circuit Judge of Leon County, Tallahassee, Florida, ordered the state to provide TB screening for Department of Education employees who believed they were exposed to a person with active TB disease at their offices in Tallahassee. The judge heard testimony from James Cobb, Head of the Florida Department of Health TB Bureau, and a nurse who had tested 19 employees, five of whom tested positive for TB infection. The employee who had been hospitalized with active TB disease and another employee testified about having frequent daily contact with the index patient. The latter witness said that both he and his wife have tested positive for TB infection. The nurse testified that the five persons who were infected with TB were advised to seek preventive treatment. Follow-up tests will be conducted on the other 14 employees after a wait of eight to 12 weeks. The judge requested the results of

those tests and of follow-up X-rays if any. Judge Sheffield stated that everyone at DOE should know the issue has arisen, and that notification can be done in terms that would not alarm workers. Also, all DOE workers in the affected area need to be placed on notice. They need to be advised about what the health department felt was the likelihood of their being infected and notified that they can be tested if they desire, at no personal cost. The bureau chief for TB in the health department commented that proper protocols were followed.

MISSISSIPPI: Hinds County inmates tested for TB; Kathleen Baydala; Clarionledger.com • June 17, 2009.

State health officials are conducting follow-up tests on 25 Hinds County inmates after two confirmed cases of the infectious lung disease tuberculosis were found at the Raymond jail a few months ago. The Mississippi State Department of Health in May tested 800 people who came in contact with the tuberculosis cases at the Hinds County Detention Center but didn't find any new active cases of the disease. However, 25 inmates returned positive skin tests, which means they are not contagious but do have the bacteria. "We are in the process of doing further assessing to determine whether to treat them or not," MSDH spokeswoman Liz Sharlot said. Latent tuberculosis can become active if a person's immune system weakens. The disease is a concern for jails and other places where people are in close contact because it can spread when the bacteria becomes airborne, such as through a cough or sneeze.

TENNESSEE: Scientists Make TB Vaccine More Effective; (United States); The Times of India, <http://timesofindia.indiatimes.com>, May 31, 2009

A team of researchers, including Douglas Kernodle, Associate Professor of Medicine at Vanderbilt University Medical Center, Tennessee, and Research Instructor Lakshmi Sadagopal, claim to have solved one of clinical medicine's mysteries. The mystery concerns the waning resistance of the TB vaccine and the development of a stronger antidote for the disease. The scientists found that instead of the prevailing belief that the TB vaccine stopped working because it became over-attenuated and ineffective, the vaccine had acquired traits that made it less effective in evoking a sustained immune response. After these traits were removed from the TB vaccine, the vaccine induced stronger immune responses in mice. Sadagopal said that the research targeted genetic duplications that make the BCG vaccine immune-evasive, as infected cells in the body produce oxidants to destroy harmful bacteria.

MISSOURI: Saint Louis University Investigates TB Vaccine; Bnd.com, May 28, 2009, by Betsy Taylor.

Researchers at Saint Louis University, Missouri, are investigating whether the BCG vaccine can be improved. They will study whether administering it as a drug, an injection, or a combination of the two would increase immune response against TB. It is hoped that changing the way the vaccine is administered could increase immune response against TB and the spread of the disease through the body. The school is seeking 70 healthy volunteers aged 18 to 40 years for the research, which will last about two years and require up to 21 visits. The work is being funded by the National Institute of Allergy and Infectious Diseases (NIAID) of the National Institutes of Health.

MARYLAND: How Research Can Help Control Tuberculosis; RE Chaisson, et al: International Journal of Tuberculosis and Lung Disease; 2009 May.

TB has played a central role in the history of biomedical science. Research in the nineteenth and twentieth centuries provided extremely valuable diagnostic, therapeutic, and preventive tools for TB control. Following the development of short-course chemotherapy in the 1970s and 1980s, research into TB virtually evaporated. Despite the availability of many tools, TB control faltered, and the disease remains a major killer. The failure of the results of scientific research to control TB is a result of the shortcomings of the tools themselves as well as the inadequate application of the tools in populations burdened by TB. A

changing epidemiologic situation, with escalating rates of HIV-related TB and the emergence of multidrug-resistant TB, further threatens global TB control. A robust TB research enterprise will be required to meet the global goals for controlling TB in the twenty-first century. Basic research is needed to better understand its pathogenesis and immunology, and to identify targets for diagnostics, drugs, and vaccines. Research into better biomedical tools to diagnose, treat, and prevent TB is also a major priority, as all of the existing tools have important shortcomings. In addition, research into understanding how to apply both existing and new tools to control TB at the population level is urgently needed. Global funding for TB research, \$483 million in 2007, is slowly growing, but is far behind need. To meet the ambitious goals of the Global Plan to Stop TB and the Millennium Development Goals, a massive investment in research will be necessary.

WASHINGTON STATE: South African Achievers Score with Bill Gates (United States)

Meridian Institute, May 26, 2009, Rowan Philip, The Times.

The Bill and Melinda Gates Foundation's Grand Challenges Explorations Global Health contest recently awarded US \$120,939 each to two South African researchers. Dr. Tumi Semete, a researcher at the Council for Scientific and Industrial Research (CSIR), Cape Town, South Africa, won a grant for a proposal to use sticky nanoparticles to help cure TB. Semete proposed the use of nanoparticles that stick directly to infected cells and release the drug slowly, so that patients do not have to remember to take antituberculosis drugs. In addition to helping patients who forget to take drugs, it is expected that with the sticky nanoparticles, close to 100 percent of the drug gets to infected tissue, compared with 20 percent in the present system. This should reduce the adverse effects and the length of time it takes to cure the disease. Semete and her team have one year to build the sticky biomolecules. The other South African researcher won a grant for creating a house paint mixed with insecticide to kill mosquitoes when they land on walls, thus reducing the exposure to malaria.

RHODE ISLAND: Documentary on TB in the US a Wake-Up Call for Many; Stop TB Partnership, May 22, 2009.

A one-hour documentary by David Bettencourt and G. Wayne Miller titled "On the Lake, Life and Love in a Distant Place," evokes memories of the recent past when TB was the number one cause of death in the United States. The film presents a chronological account of a time in the first half of the 20th century, when there was no cure for TB. It shows the lives, loves, and losses of citizens of Rhode Island who were confined to a lakeside TB sanatorium, and depicts the stigma attached to TB and the terror it created. The documentary was broadcast in March of 2009 in cities in the United States by affiliates of the Public Broadcasting System and will be broadcast through spring and summer. It will also be shown at the 2009 National TB Conference in Atlanta, Georgia, in June. Additional information about the film and its broadcasting schedule may be found at its web site: <http://www.onthelakemovie.com/>.

WEST VIRGINIA: Raleigh Co. Hospital Adds New Unit; WVNS-TV, May 15, 2009, by Hillary Crowder.

Pinecrest Hospital in Raleigh County, Beckley, West Virginia, recently held an open house to celebrate the addition of a new TB unit to be opened in July. The new unit will house five patients, and its rooms contain special equipment that can help TB patients breathe more easily. This will be the largest TB unit in West Virginia.

NEW JERSEY: Novel TB Test May Provide Results Quickly, Efficiently; Newpost Online, May 8, 2009.

Dr. David Alland, Chief, Division of Infectious Disease, University of Medicine and Dentistry of New Jersey (UMDNJ), has developed a new diagnostic test for TB called Xpert MTB/RIF. The test simultaneously identifies *Mycobacterium tuberculosis*, the bacteria that causes TB, and indicates

resistance to first-line antituberculosis drugs. The test is also a reliable surrogate marker of strains that are multidrug-resistant. The manufacturer of the test, Cepheid, believes that this test will meet the need for accurate and rapid detection of TB.

NEBRASKA: College Student in Kearney, Neb., Has Tuberculosis; Associated Press, May 13, 2009.

A spokesperson for a university in Nebraska has confirmed a case of active TB disease in a student there. Cynthia Shultz said the student remains in isolation at an off-campus apartment and is recovering from the disease. According to officials, the student's two roommates, a study partner, and a close friend, have all been tested and found to be free of TB.

FLORIDA: Armwood Parents Air Concerns over TB Case; St. Petersburg Times, May 7, 2009, by Kevin Smetana.

On May 6, health officials met with dozens of parents at a high school where a student was diagnosed with TB. Dr. Doug Holt, director of the Hillsborough County Health Department, said that during the following week, nurses would begin administering TB skin tests to about 250 students and staff members who may have been exposed to TB. Dr. Holt mentioned that if someone who was not on the list of potentially exposed persons wanted to be tested, the department would do so, if the person produced a physician's note requesting the test. Holt said the initial patient is recovering, and the patient is believed to be only mildly contagious.

CALIFORNIA: TB Tests Continue at Tulare Union after One Student Contracts Infection
Visalia Times-Delta, May 8, 2009, by Victor Garcia

Tulare County Health and Human Service officials say they have detected no other active TB disease cases among the hundreds of people screened at a high school in January and March. In early December of 2008, the school learned that a student had active TB disease and reported the case to the county health agency. Those who tested positive for latent TB infection were advised to take preventive antibiotics, said Dr. Karen Haught, the county's public health officer. "Positive TB tests have a 10 percent risk that they could become active later, and that's why we advise medications to eliminate the risk in the future," she explained. The department is conducting a third round of testing on those who had contact with the infected student. The patient is recovering and not attending school. Results from the latest round of testing should be available by May 15, Haught said.

CALIFORNIA: San Mateo Man with Tuberculosis Faces Charge for Disobeying Quarantine; San Mateo County Times, May 12, 2009; Elizabeth Pfeffer.

A 60-year-old TB patient faces criminal charges for disobeying a county health department isolation order and is being held in a negative pressure isolation room at the Maguire Correctional Facility. The patient was diagnosed with active TB disease after being hospitalized for a severe cough. Over three days he turned off the specialized air filtration system, and exposed staff and other patients to the disease by leaving his room about eight to 10 times. Because he did not adhere to doctors' orders, the county health officer issued a formal public health order, and the patient was arrested on a \$100,000 warrant. The arraignment was postponed because the patient was still contagious and therefore unable to attend. The arraignment was rescheduled for later in the week, but it is not known whether the patient would be able to attend on that date. According to Doris Estremera, San Mateo County Health System spokesperson, a patient must pass three lung tests three days in a row before being declared non-contagious and noninfectious.

GEORGIA: Attorney in 2007 Tuberculosis Scare Sues CDC; Associated Press, April 30, 2009, Greg Bluestein.

In federal court in Atlanta on April 28, an individual filed a lawsuit accusing CDC of “unlawfully and unnecessarily” revealing his private medical history and other sensitive information. In May 2007, the individual took commercial flights to Europe and back for his wedding while infected with multidrug-resistant TB. For a time, authorities feared the Atlanta attorney was infected with a much more serious form of the disease, extensively drug-resistant TB. Although this turned out not to be the case, the matter touched off an international health scare. The plaintiff claims he was subjected to scorn and death threats as a result of his private information having been made public by CDC, and he blames the stress of the incident for the fact that he and his wife have split. His suit seeks unspecified damages and court fees.

WASHINGTON STATE: Foundation Invests in 81 Unconventional Global Health Research Projects; News Blaze, May 4, 2009.

The Bill and Melinda Gates Foundation recently awarded 81 grants to researchers in 17 countries through its Grand Challenges Explorations Initiative. The projects focus on new ways to prevent and treat infectious diseases. Recipients included Dr. Bikul Das of Stanford University Medical School, who received a grant that will enable him to explore the potential role of stem cells in latent TB infection. Another recipient was Boitumelo Semete of the Council for Scientific and Industrial Research in South Africa, who will experiment with the use of “sticky nanoparticles” that attach to TB-infected cells and slowly release antituberculosis drugs to shorten treatment time and reduce side effects.

MARYLAND: Aeras Global TB Vaccine Foundation Opens Plant; Washington Business Journal, May 4, 2009.

Aeras Global TB Vaccine Foundation in Rockville, Maryland, has opened a new \$12 million 9,000 square-foot vaccine manufacturing facility. The new facility allows the company to purify its vaccine products at a higher level and convert them into injectable or inhalable forms in up to 5,000 vials with each run. Aeras will produce vaccines for its four clinical trials as well as for distribution around the world. The nonprofit company is largely funded by the Bill and Melinda Gates Foundation.

WASHINGTON, DC: Sequella Starts New Drug Trials; Washington Business Journal, May 5, 2009, by Vandana Sinha.

After the initial clinical trials on an antibiotic to treat TB showed that the drug was safe, the biotech company Sequella, Inc. has begun a second set of trials. In the second trials, the company is testing the safety of the drug when taken daily by three groups of volunteers. The testing will be conducted at the same location as the first trials were conducted in 2007. The drug, which is aimed at treating drug-sensitive and drug-resistant strains of TB, has earned fast-track and orphan drug status from the US Food and Drug Administration. The study is being conducted by the US National Institute of Allergy and Infectious Diseases, through a contract with Dynport Vaccine Col LLC. Sequella, Inc. is also in the final stages of testing a skin patch to diagnose TB, and has recently received more than \$2.3 million in grants from the US National Institutes of Health (NIH) to develop two more TB drugs.

NORTH CAROLINA: TB Tests to Be Given at West Mecklenburg High; Charlotte Observer, April 29, 2009, by David Perlmutter.

Some 80 students and staff will be tested for TB at a North Carolina high school, where a person has been diagnosed with the disease. The patient is being treated in isolation at home and will not be permitted to return to school for three to four weeks, health officials said. “I expect a normal recovery for the [diagnosed] individual,” said Dr. Stephen Keener, Medical Director for the Mecklenburg Health Department. Those tested will be retested in eight weeks. Persons testing positive for infection will be given a nine-month regimen of preventive medicines, Keener said, adding, “The main thing here is that the individual was identified and the contacts were identified, and we’re taking every step to assure parents their children’s health and safety are being protected.” Concerned students or their parents can

telephone Maria Bonaiuto, the school medical director, at 704-304-6703, or the health department's TB program at 704-432-2665.

CANADA: High Number of TB Cases Investigated; Guelph Mercury, April 2, 2009, by Vik Kirsch.

The Wellington-Dufferin-Guelph (Ontario, Canada) Public Health manager of communicable diseases said the local health board has confirmed four TB cases in the past three months and is investigating a possible fifth. "We would not call it an outbreak," said Janice Walters, but it is a higher number than usual. The board typically investigates four to seven TB cases in a given year, she said. The cases since January have been diagnosed in Guelph and in Wellington County, with a possible case in Dufferin County, Walters said.

CALIFORNIA: Inmate Has TB; 2,000 May Have Been Exposed; San Diego Union-Tribune, April 10, 2009.

San Diego County health officials are working to notify people, including jail visitors, who may have been exposed to an inmate subsequently diagnosed with TB. The inmate was held at the central downtown jail Jan. 4-8, 2009, and at the George Bailey Detention Facility in Otay Mesa from Jan. 8 through March 11, 2009. The inmate was returned to the downtown jail on March 11, 2009, and diagnosed with TB the next day, said Dr. Kathleen Moser, the county's director of TB control services. As many as 2,000 inmates and 100 correctional and court employees may have been exposed.

ARIZONA: Supervisors to Discuss Relocating TB Clinic; Tucson Citizen, April 13, 2009, by Garry Duffy.

On April 14, the Pima County (Arizona) Board of Supervisors will discuss moving the Health Department TB Clinic from its current location - the first floor of the Pima County Health and Welfare Building, 150 W. Congress St., Tucson - to a county-owned building near the Herbert K. Abrams Public Health Center, 3950 S. Country Club Rd. The primary motivation for moving the facility, which treated 23 active TB disease cases last year, is the "lack of appropriate air handling for this type of clinic" in the current building, said a memo to supervisors from Chuck Huckleberry, Pima County's administrator. In addition to TB treatment, the clinic performs TB screenings required by homeless shelters and some employers. "Initial reviews by TB clinic staff have been favorable to both the proposed layout, as well as the proposed methodology to achieve exceptional air quality compliance," Huckleberry told the board.

WASHINGTON, DC: New NIOSH Guidance Aims to Help Protect Health Care Workers from TB; EHS Today, April 8, 2009, by Laura Walter.

CDC's National Institute for Occupational Safety and Health (NIOSH) has provided new technical guidance for using ultraviolet germicidal irradiation (UVGI) systems to protect health care workers at occupational risk of contracting TB disease. The guidance for using UVGI systems to prevent TB infection is published in *Environmental Control for Tuberculosis: Basic Upper-Room Ultraviolet Germicidal Irradiation Guidelines for Health Care Settings*. The guidelines are consistent with and expand current guidelines by CDC for reducing TB transmission in health care facilities. The UVGI systems may help provide infection control in facilities such as homeless centers and older hospitals that may not have mechanical ventilation systems, or where such systems were not designed to meet the present criteria; therefore, retrofitting would be difficult and expensive.

ILLINOIS: Patients at Three Chicago Hospitals Exposed to TB by Physician; EmaxHealth, April 11, 2009, by Ramona Bates.

Patients at three Chicago hospitals may have been exposed to TB by a pediatric resident who was diagnosed with the disease. The pediatric resident who was admitted to hospital on April 3, and kept

isolated until the diagnosis was confirmed, has been discharged on treatment. Although it is believed that there was low risk to patients, the hospitals concerned, Northwestern, Children's Memorial, and Evanston, are notifying patients who may have been exposed to the resident during the last 10 months.

MARYLAND: Bayer Antibiotic May Shorten Tuberculosis Treatment, Study Says

Bloomberg News, April 3, 2009, by Michelle Fay Cortez

In a new study, a drug approved to treat pneumonia showed promise in improving TB treatment rates. Globally TB infects roughly 8.8 million people and kills 1.7 million annually. An uncomplicated case of the disease typically takes six months to treat. But many patients with uncomplicated TB fail to complete the six-month treatment regimen. As a result, half a million people contract drug-resistant TB each year. Researchers led by Richard Chaisson of Johns Hopkins University School of Medicine studied 170 TB patients treated at a hospital in Rio de Janeiro, Brazil. The study was funded by the US National Institutes of Health and the US Food and Drug Administration's office of orphan product development. The study found that 80 percent of patients given the antibiotic moxifloxacin (Avelox) plus standard treatment had no signs of TB infection in their saliva after eight weeks. That compares with around 63 percent of those given an older medication in addition to the traditional three-drug TB cocktail. Avelox is sold by German drug maker Bayer to treat pneumonia. "Moxifloxacin, in combination with other first-line anti-tuberculosis drugs, could shorten the time needed to cure [TB] by several months," the study team reported. "A reduction in the duration of [TB] therapy would substantially improve outcomes." In an accompanying editorial, Hans L. Rieder of the Switzerland-based International Union Against Tuberculosis and Lung Disease noted that moxifloxacin's benefit was "surprisingly large." "However, it remains to be seen" if newer antibiotics like Avelox will allow treatment to be shortened, he said. "What is needed, and perhaps in reach, is a regimen that is well-tolerated, of reasonably short duration, without an unacceptably high frequency of adverse drug effects, and thus an effective treatment," said Rieder. The study, "Moxifloxacin Versus Ethambutol in the Initial Treatment of Tuberculosis: A Double-Blind, Randomized, Controlled Phase II Trial," and the commentary, "Fourth-Generation Fluoroquinolones in Tuberculosis," were published in *The Lancet* 2009;373(9670):1183-1189 and 1148-1149, respectively.

FLORIDA: Tuberculosis Case Prompts University of North Florida Advisory; Florida Times-Union (Jacksonville), April 16, 2009, by Jeremy Cox.

A Florida university recently sent e-mails to inform students, faculty, and staff that a worker at the school had been diagnosed with TB. The worker was employed by a food service contractor and worked in the kitchen at the university center in September and October. The worker did not prepare food or work with the public. Charles Griggs of the Duval County Health Department said the university was informed about the case only recently because the patient had claimed to epidemiologists to be unemployed. A person with knowledge of the patient's condition came forward to authorities. So far, 34 of the patient's coworkers have been tested: 28 were free of TB, and test results on six are pending.

CALIFORNIA: TB Case Is Confirmed at Prison; Los Angeles Times, April 17, by Ann Simmons.

A TB investigation is underway at a state prison in California, where an active case of the disease has been confirmed. "We take it very seriously," said Lt. George Allen, a prison spokesperson. "That's why we're in full lockdown." TB testing was beginning that day; inmate movement has been restricted; weekend visitations have been suspended; and no prisoners will be received or transferred until testing is completed. The prison houses about 4,600 inmates and employs 1,900 workers.

TEXAS: Inmates, Jail Staff to Get TB Tests; San Antonio Express-News, April 16, 2009, by Don Finley.

The news that two Bexar County Jail (BCJ) inmates have been diagnosed with TB has prompted plans to test hundreds of prisoners and staff for the disease. This is the second TB investigation at the facility in

less than a year. While jails are a common setting for TB, one health official suggested that BCJ might pose a higher risk due to its lack of circulating air. "Jails are always a problem because of the fact that it's a closed environment, and BCJ in particular has just one air exchange per day," Domingo Navarro, chief of the TB program with the Metropolitan Health District, told the city's Advisory Board of Health recently. Navarro said he was briefed on the jail's air-handling capability in May of 2008, when 900 inmates at BCJ and another 100 at Maverick County Jail were potentially exposed to TB by an infected inmate. The cost of improving air exchange at BCJ need not be prohibitive, Navarro said, and might in fact be more economical than repeated, large-scale TB testing. The tab for last year's investigation was \$46,000, not including the cost of additional state health workers sent in to help.

ARIZONA: TB Clinic Moving to Kino Area; Tucson Citizen, April 15, 2009, Garry Duffy.

On April 14, the Pima County Board of Supervisors unanimously approved a plan to move the Health Department's TB treatment program out of the department's downtown building at 150 W. Congress St. and into a facility near the Herbert K. Abrams Public Health Center, 3950 S. Country Club Rd. The treatment program's current location has inadequate air-handling equipment and had been cited by the federal Occupational Safety and Health Administration, said Chuck Huckleberry, county administrator. Responding to the concerns of health care workers and advocates for the homeless, the board directed the county administration to find another downtown site for the department's TB testing program. Homeless shelters require clients to undergo TB screening before being admitted, noted Carolyn Trowbridge, a member of the county Board of Health, and moving the screening program out of downtown would create a hardship for the poor and homeless persons who need testing.

CALIFORNIA: University of California-Berkeley Student with TB Isolated; More than 200 Tested; Contra Costa Times, April 20, 2009, by Doug Oakley, Berkeley Voice.

City and campus health officials are testing 225 people for TB infection following a university student's diagnosis with an active case of the disease earlier this month. The student is receiving antibiotic treatment and will remain in isolation at a hospital until no longer contagious, although the patient can receive visitors, said Brad Buchman, medical director of University Health Services. The 225 people being tested were exposed to the student with TB starting in the fall, said Janet Berreman, City of Berkeley health officer. "As we continue talking to the person who is infected, we may identify more people who could have been exposed," she said. Those tested will not be cleared definitively for another three months, Buchman said. The disease is relatively difficult to transmit, so people on campus should not worry, he said. "You have to cough in someone's face, and they have to inhale, and it can't just be one cough or one breath," he said. "The public has a lot of questions, so the hardest thing for us is to control panic." The student with TB presented to University Health Services with a cough that had persisted for "many, many weeks" and with a fever of 104 degrees Fahrenheit the previous day, Buchman said. "We get training on diagnosing it every year because it's fairly common in Berkeley," he said. The city has about four to five TB diagnoses annually, with occasional spikes of 10-12 cases, Berreman said.

FLORIDA: Parents Have TB Officials to Themselves; Bradenton Herald, April 21, 2009, by Richard Dymond.

Health and school officials said they are surprised by the low turnout at a recent community forum on an active TB case involving a high school and a middle school. The nine parents who attended had the full attention of the seven Manatee County Health Department officials on hand. On April 17, health officials announced an individual involved with both schools had been diagnosed with active TB disease. The person is under treatment and is no longer contagious, they said. At the forum, officials said an undisclosed number of letters went out to persons deemed at greatest risk of infection. The health department will conduct free TB skin tests on those who received the letter at both schools. Skin test readings will be held on April 27. Those who test positive for infection will receive a free chest X-ray, said health department director Dr. Gladys Branich. Parents Peter and Eva Schrum asked the officials

whether TB could travel through the air conditioning ducts at the schools to infect others. TB needs a poorly ventilated area to spread, they were told. Bevin Myers, whose son attends the high school, wanted to know how long the bacteria take to incubate in a person. Jan Hinz, supervisor of the department's TB program, responded by saying that in 90 percent of people, TB cannot incubate due to the strength of their immune systems. However, incubation is relatively rapid in persons whose immune systems are compromised, she added. The parents appeared satisfied with the forum.

CALIFORNIA: Most Injection Drug Users in Tijuana Have Tuberculosis (United States)

KPBS, April 15, 2009.

Researchers at the University of California, San Diego, have found that two thirds of injecting drug users in Tijuana, Mexico, test positive for TB infection. The researchers tested more than 1,000 injecting drug users in Tijuana and found that 67 percent had latent TB infection (LTBI). This form of the disease is not contagious and can be treated, but the cure requires up to nine months of antituberculosis drug treatment. Health officials say that injecting drug users who test positive for TB infection are at high risk of developing active TB disease. According to the leader of the study, Dr. Richard Garfein, it is crucial to make sure Tijuana does not have an outbreak of TB. He said that if approaches to infection control are implemented correctly, an outbreak can be prevented.

MISSOURI: Students, Staff Members at East High School to Be Tested for Tuberculosis

Kansas City Star, April 24, 2009, by Alan Bavley.

The Kansas City Health Department (KCHD) has announced plans to administer TB tests to 80 students and staffers at a high School where a student, a foreign national who likely became infected abroad, has an active case of the disease. About 700 students attend the school. According to Jeff Hershberger, spokesperson for KCHD, the student presented at a local clinic with a persistent cough two weeks ago and was later admitted to Children's Mercy Hospital. Recently, KCHD received the hospital's confirmation that the student has active TB. KCHD distributed a letter to students explaining the matter the following day; those who had been in close contact with the student also received parental permission slips for testing, which began the week of April 27.

NEBRASKA: University of Nebraska-Kearney Students Cleared in TB Scare; Associated Press,

April 23, 2009.

At the University of Nebraska-Kearney, tests have shown that four students are free of TB infection despite having been in close contact with a student suspected of having the disease. The initial student remains in isolation at an off-campus apartment while officials await final test results. The four tested were the student's roommates, a study partner, and a close friend.

If you wish to receive the **Stop TB USA** messages at a different e-mail address, or if you no longer wish to receive these messages, please reply to jseggerson@tbcoalition.com

Stop TB USA

1911 Olde Village Run
Dunwoody, GA 30338
Tel: 202-494-2448
