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IN THIS ISSUE

In This Issue **continued on next page**

Windfall grant may soothe states' pain, provide relief

Don't expect TB funds to be restored completely

Smarting from cuts enacted late last year to federal cooperative agreement grants and riled at the way the cuts were handled, TB controllers are hoping for relief from a last-minute congressional grant of $8.6 million. In fact, some relief is probably on the way — but probably not as much as programs would like, insiders say.

"A lot about that $8.6 million is still unknown," says **Carol Pozsik**, RN, MPH, director of South Carolina's division of TB control and president of the National Tuberculosis Controllers Association (NTCA). "It's not likely all of it will get passed back [to the programs]." That's because part of the windfall will likely be siphoned off by an administrative "tap" intended to fund various special Centers for Disease Control and Prevention (CDC) projects.

"That means they don't know if they'll wind up with $3 million, $6 million, $7 million, or what," notes **Walter Paige**, executive director of the NTCA. "Ken [Castro, MD, chief of the CDC's Division of TB Elimination, or DTBE,] thinks he'll get most of it. But he doesn't know yet for sure."

DTBE turns on diplomacy spigot

While CDC administrators and program heads awaited word on when more dollars would start to flow, the DTBE turned on the diplomacy spigot, seeking to soothe hurt feelings the cuts had provoked.

"Some blood pressures were definitely up, mine included," says Pozsik. "Some of us wound up feeling we were unjustly jabbed. And some of us were thrilled to find we weren't touched at all — which made the rest of us feel even worse." **(See report on Los Angeles County's program, p. 11.)**

And even though Castro and others at the CDC were predicting that a decision about the windfall

In This Issue **continued from page 9**

COMING IN FUTURE ISSUES

- **Research bonus:** Rifapentine trials end in surprise
- **Foe turned friend:** Thalidomide's promise for TB research
- **Strong incentive:** Methadone clinics' compliance-booster for prophylaxis
- **Power, poverty, and TB:** The conference at Katmandu
- **BCG trial:** Sequella gauges best way to give vaccine

grant should be reached by the end of January, that doesn't mean programs should start counting their chickens, cautions Paige.

The reason? The decision not to keep using "carryover" funding from previous years, though it remains the chief reason for this year's scaled-back grants, was implemented under a new set of rules, and even if more money becomes available, those rules won't change. That means programs that re-apply for pieces of the windfall money will be judged by the same criteria as before, Paige explains.

"So any additional money will be awarded according to the same guidelines," he says. "Programs that were cut because they didn't perform well [according to the new rules] may not do any better the second time."

Damage control over dinner

Damage control began with two back-to-back meetings called by Castro in Atlanta. The DTBE chief huddled with Paige and Pozsik over dinner, and then again the following day, trying to restore good will and answer questions.

Pozsik says she was speaking not just for South Carolina but for other programs as well when she asked Castro whether the budget cuts were intended to be read as punishment for poor performance. "I felt like we've been doing a pretty good job here. I wanted to know whether this meant we were being punished," she says.

No way, came Castro's reply. "They said no, no, no — that's not at all what the cuts were about," says Pozsik. "It was simply that they ran out of money. I left the meeting feeling that in a sense, they were bound by forces that to some degree were beyond their control."

At the Atlanta meeting, Castro tried to suggest ways programs could recoup some of their losses — perhaps by getting lobbyist organizations, such as local chapters of the American Lung Association, to champion their cause before legislatures and perhaps shake loose extra money at the state level.

Castro, Pozsik, and Paige also set up a conference call for Feb. 16, during which the CDC's top TB boss was scheduled to field questions from other TB controllers. (Questions could be submitted in writing ahead of time to Paige, or lobbed on the spot during the call.)

As plans fell into place, morale in the field seemed to be lifting a bit. But ruffled feathers

were still to be found, and not just because of cuts, Paige says.

One reason program chiefs were upset was because of the way the DTBE jettisoned an agreement struck two years ago between the NTCA and the CDC about how cuts would be handled. The reason, Pozsik says Castro explained, was because, when it came down to the crunch, the agreement was too narrow to fit messy realities.

Another cause of ill will sprang from the way the announcement of the cuts was timed — so that it coincided with a long-scheduled regional conference. The upshot was that many would-be conference goers, now under deadline pressure to respond to the CDC's announcement, had to jettison their conference plans.

To add insult to injury, Paige says some TB controllers had gotten word from division spokespersons that they had nothing to fear — only to discover that wasn't the case at all. Others, when they called asking for an explanation of why their programs were trimmed, were told sniffily that the division "wasn't obliged to provide any explanations."

"I think we all knew these cuts were coming," sighs Pozsik. But it would have been helpful, she adds, if the CDC had been a little more upfront about how much it was going to hurt. ■

LA community-based funding for TB wiped out

ESL screening, other programs land in the ICU

In East Los Angeles, administrators at English as a second language (ESL) classes, where immigrants who attend receive TB skin tests, worry whether the nuns from Ultimate Health Service will be back to read the skin tests. At Ultimate Health Services, **Sister Mary Jo Piccione**, SP, RN, and TB coordinator for the organization, worries about whether she'll lose her outreach mission.

"These people work so hard all day, and then they work hard learning English at night," says Piccione. "They're so motivated."

Piccione's work is complicated by the fact that many of the students land jobs and move away. Plus, she adds, "they have so little time to come by the health center every month for a bottle of [isoniazid] pills." Still, she adds, a lot of them do anyway.

What seems like a lot to Piccione evidently wasn't enough to the number-crunchers at the Centers for Disease Control and Prevention's Division of TB Elimination, or DTBE. That's one way **Paul Davidson**, MD, head of county TB control, tries to account for what happened late last year when cooperative agreement funding cuts were meted out.

He had expected to take some hits, Davidson adds; plus, TB honchos at the CDC had begun issuing storm warnings last year, letting programs know that they'd be penalized for "frivolous" screening programs that skin-tested but didn't get patients through a round of preventive drugs.

"We knew we were probably looking at some cuts, but we were thinking it would give us the chance to look carefully at these community organizations, and to see which were the most productive, and which needed some work," says Davidson. "Now, that chance is gone."

Instead, the $1 million dollars the county used last year to fund TB screening among 11 different community-based organizations, or CBOs, was completely wiped out. The cut amounts to about 14% of the overall TB control budget, Davidson adds.

The city that invented CBO partnerships

Ironically, Los Angeles County practically invented partnerships with CBOs, even convincing a state legislator to go to bat for the concept, Davidson says. Convincing Congress to pay for such an idea was just the first step; county workers resisted the idea that suddenly, outsiders were getting paid to do what they considered to be "their" jobs, Piccione recalls.

The work paid off, though, and Los Angeles gradually became known as the prototype model for CBO partnerships. Over the past six years, CBOs serving hard-to-reach immigrant populations have screened about 100,000 people for TB, Davidson estimates; of that total, about 10,000 have completed all six months of preventive therapy.

That accords with Piccione's estimates of her own numbers. At Ultimate, she and her colleagues have skin-tested 1,300-plus ESL students over the past year. About half tested positive; of those, 365 showed up at the county health center for a chest X-ray. So far, postcards and phone call reminders and the promise of $20 gift certificates have coaxed about 50 to completion; by the time

the rest of the year's cohort has worked its way through, another 50 will probably finish a full six-month course of INH.

Davidson says he's not convinced the CDC actually set out to eliminate his CBO partnerships. The decision to assess targeted testing as a separate activity, judged by its own set of rules, is what brought the situation to its current pass, he believes: "It was their own process that did them in, I think," he says.

With 70% of its TB cases among the foreign-born, and half of those among Hispanics, Los Angeles has lost a big piece of its TB control program.

But the result is still lamentable, he adds. With 70% of its TB cases among the foreign-born, and with half of those being among Hispanics (a group especially apt to skirt the usual overseas screening mechanisms), Los Angeles has lost a big piece of its TB control program. The county, in turn, accounts for a big chunk — 13% to 14% — of the United States' TB cases among foreign-born people.

Oddly, other jurisdictions in the state that applied for funding for targeted testing programs existing so far only on paper got all the money they asked for, Davidson adds, and the amounts awarded to other jurisdictions roughly equal what Los Angeles lost.

"It's as if they just shifted the money around," he says ruefully. To make it worse, Davidson says he and other county TB experts sat down with at least one jurisdiction whose application was approved and patiently explained how Los Angeles had set up its CBO partnerships.

Once, says Piccione, an ESL teacher assigned thank-you notes as a homework assignment. "I got all these lovely notes, in English and on paper they'd decorated by hand, from 30-, 40-, 50-year-old men and women, thanking me for coming to the classroom," she recalls.

To her, that suggests some benefits of the program, while they may be harder than others to measure, are real nonetheless. "The education we get to do there is like a wave that gets bigger as it moves along," she says. "Once people understand something like TB, they no longer fear it. That's part of what's made this ministry so special to me." ■

Cape Town hosts confab for new TB drug alliance

Rockefeller's Pablos-Mendez says 'time is right'

With the conclusion of this month's kick-off event in Cape Town, South Africa, the new global alliance for new TB drugs is now more than just a gleam in the eyes of its co-sponsors. But predictions about what the new brainchild of the Rockefeller Foundation will look like, or how it will behave, are still premature and will have to wait for subsequent get-togethers later in the year.

Sibling public-private partnerships aimed at drug development for other "orphan" diseases, including AIDS and malaria, will serve as useful examples of what the TB partnership might look like, says **Ariel Pablos-Mendez**, MD, MPH, scientific adviser to the New York City-based foundation, but not as precise models. "Each of these partnerships is unique," he says, "and there are lessons to be drawn from them all, but each one is its own constellation."

What's still lacking in details is more than made up for in enthusiasm, adds Pablos-Mendez.

Public and private interests convene

Although the participants at the Cape Town conference may not constitute the main stakeholders in the new alliance, their numbers (as well as their mailing addresses) suggest strong interest in the new project. More than 150 experts and leaders from private industry (among the 19 confirmed guests from this category were reps from Glaxo-Wellcome, Eli Lilly, Immtech, Pfizer, and the International Foundation of Pharmaceutical Manufacturers Association) and from academia, government organizations, and donor agencies were scheduled to convene at Cape Town Feb. 6-8.

Co-sponsors of the Cape Town meeting, along with the Rockefeller Foundation (which has spearheaded the drive to form the new alliance) included the Bill and Melinda Gates Foundation; the Wellcome Trust; The National Institutes of Health; the United Kingdom's Department for International Development; and Stop TB, a partnership of governmental, non-governmental, and financial institutions based at the World Health Organization.

"The time is right," adds Pablos-Mendez. "We have a lot of people who are interested, and I think there is a good chance we'll have enough support to be successful."

Others at the Foundation concur. "There's a strong buy-in into the need for such an alliance," says a Rockefeller Foundation spokesman who asked to remain anonymous. "My guess is that there are a number of factors serving as motivations, including the facts that TB is still widely prevalent, that [the foundation] has a new strategy of focusing on orphan diseases, and, finally, that there are a lot of big new foundations keen to discuss these new strategies and this long-standing need."

The new alliance will aim to develop treatments for TB that will both shorten and simplify treatment for the disease.

According to the Cape Town meeting agenda, the new alliance will aim to develop treatments for TB that will both shorten and simplify treatment for the disease. The specific example cited in the agenda was to find drugs that will work their cure in just three months' time, instead of the current minimum requirement of six months.

Topics on the agenda at Cape Town were to have included the following:

- the current global TB burden, the limits of current control efforts, and the potential impact of more efficient patient treatment;
- new sciences available for TB drug development, with a look at state-of-the-art research and the promise it holds for new TB drugs;
- a review of burgeoning new biotechnologies;
- a look at TB drug development now under way;
- an assessment of industry perspectives on TB drug development;
- a review of other public/private partnerships for orphan diseases.

Closing discussions at the meeting explored the following topics:

- estimating the costs of new TB drug development;
- ways to accelerate drug development;
- a look at what stakeholders need to do to get the process moving more quickly;
- the drafting of a "blueprint." ■

Will new commission be key player on the border?

The task: Pulling threads into strong rope

In a region with lots of border-health wannabes, until lately a little-known panel called the U.S./Mexico Border Health Commission looked to be just one more bench-warmer, doomed to spend its days in boring design meetings where members talk loftily about goals and missions.

Late last year, the commission's status as a player began to look more assured. President Clinton appointed eight new medical professionals as members, and the commission scheduled what members describe as its first working meeting. **(See Q&A, p. 14.)**

Now, some observers in the border region say they are cautiously hopeful about the impact the commission might be able to make.

"The border is sexy," says **David Steffen**, MSN, MPH, public health director of District 3 of the New Mexico Department of Health. "Relationships here are fragile and tenuous, and people who just pop in and out can mess things up pretty quickly.

And because it's so sexy, it's crowded, he adds. "You've got all these different entities that relate to border health, all doing their own thing. This commission has the potential to bring it all together and to channel these efforts. They can take all these little threads going out and twine them into a lifeline."

In the six years since its creation (by an act of Congress in October 1994), the commission has gotten the go-ahead from both Mexico City and Washington, DC. But unlike some other binational groups that talk at the federal level, the group has the teeth — almost — to get groups moving together at the local level, Steffen says.

You don't pay, they won't play

Typically, there are still a few knots that need to be untied. One is money.

"It's kind of a Catch-22," Steffen explains. That is, American lawmakers are waiting to vote on the commission's budget until Mexico City appoints members; the Mexican government, for its part, wants to see the money before it appoints commission members. "So it's a question of

(Continued on page 15)

***TB Monitor* Q&A**

Border health issues finally may get hearing

Editor's note: Laurance N. Nickey, MD, former longtime director of the department of health in El Paso, TX, recently was appointed by President Clinton to the U.S./Mexican Border Health Commission. Nickey, a pediatrician by training who says he "lives and breathes the border," agreed to talk with TB Monitor *about his new role.*

Q: How much do average Americans know about conditions on their nation's southern border?

A: A lot of people still think of the border as just a string of villages, like back in 1900, when there were only about 36,000 people in the entire region. Today, 11.5 million people live along the border; by 2025, demographers predict the population will grow to 22 to 24 million. It irritates the hell out of me that we can give millions of dollars to countries on the other side of the world, but hardly anything to our immediate neighbors. This is the forgotten America.

Q: Why the big increase?

A: People come to work in the *maquilas* [the assembly lines and factories along the Mexican half of the border]. They come for the same reasons people have immigrated for generations: to try to make their lives better for themselves and their families. Some of the *maquilas* are responsible employers who pay decent wages; but others — well, some of them should simply be shut down.

Q: Can you describe the economic conditions?

A: El Paso is the 17th largest city in the United States, but with the 130th largest tax base — does that tell you something? In [its sister city] Juarez alone there are 1.2 million people, but Juarez has no sewer treatment facilities. Instead there is a ditch called the *aquas negras* running parallel to the Rio Grande, filled with raw waste and industrial solvents. When people in Juarez need drinking water, they drill shallow wells; this stuff is what they tap into. If this had been happening in an American city for all these years, can you imagine the banner headlines in the newspapers?

Q: What kind of public health problems does this engender?

A: TB rates are two to three times higher here than in the rest of the U.S.; we've measured drug-resistance rates that range all over the place. There's hepatitis A, and I could also tell you some scary stories about cholera outbreaks.

Q: How did the Border Health Commission come to exist?

A: We've been trying to get this thing running for over 10 years. In 1989, we held a meeting on border health issues with the Texas Department of Health and the Texas Border Health Association. That was the start. State legislators, including senators Nancy Bingamon from New Mexico and John McCain from Arizona and others helped out; the Texas Medical Association spearheaded the push; and the result was finally a law passed in October of 1994 to establish the Commission.

Q: So far, so good?

A: Well, it's a bit like a debating society — lots of words, not a lot of action. But over the past few months, the American state department has gotten together with Mexican diplomatic corps — and it appears as though they are going to come to the table.

Q: What's your take on relations between the two countries?

A: I hope when we finally sit down at the table together that the table is round, and that we can look at each other as equals and not castigate or criticize.

If we can work together to help these 11.5 million people who live here, it'll be the one of the best things that ever happened to this place. After all, these folks are our colleagues and our friends. Above all, they are our neighbors. ■

who's going to break first," says Steffen. Last month, there were hopeful signs: Mexico City had agreed to send, if not appointed representatives, at least some emissaries to Washington for the first working meeting.

That leaves only a couple of not-so-minor questions, such as which country will pick up the check for patient care when Mexican nationals get treated for, say, multidrug-resistant TB in American hospitals. Then again, no one ever claimed life along the border was for sissies.

What makes border projects especially tough are, in order, poverty, followed by cultural differences.

According to Steffen, what makes border projects especially tough are, in order, poverty, followed by cultural differences. "The majority of the problems here — I'd say 75% — are poverty-related," he says. "You have the same issues you find in Appalachia or the south side of Chicago."

Problems include cultural differences

That leaves what Steffen terms "the critical quarter," the remaining 25% of problems that spring from cultural differences separating the two countries. "If you're dealing with sister cities in the U.S., at least you have the same language, the same judicial system, the same history, business practices, and commerce," he says. Skip to El Paso and Juarez, and all those likenesses evaporate.

Not the least of the differences is structural, Steffen adds. Because Mexico's public health system is heavily centralized, the authority for projects carried out on the border has to come from the federal level; on the U.S. side, public health agencies have much more autonomy.

"From the Mexican perspective, that means it makes sense to have a Mexico City-to-Washington, DC, effort around a lot of health issues," says Steffen. The trouble with commissions that operate at the federal level is that they tend to stay stuck at that level: "It's not an on-the-ground emphasis," he adds. "The local piece tends to get left out. But solving public health problems locally is what ultimately has got to happen." ■

TB in health care workers lower than U.S. rates

Expert: Measure benefits before you intervene

TB rates among the nation's health care workers are similar to TB rates among other groups of employed people, and lower than the national average, says **Amy Curtis**, PhD, MPH, an epidemiologist at the Centers for Disease Control's Division of TB Elimination's surveillance branch.

That was one of the findings about TB and health care workers presented at a conference held last December in Washington, DC, titled "Tuberculosis Infection Control in the 21st Century," which was jointly sponsored by the American Thoracic Society, the American College of Chest Physicians, and the Infectious Disease Society of America.

"We found TB rates are similar among all employed persons and lower than the U.S. average," says Curtis. "We know there have been outbreaks in the past at health care facilities, but as a group, health care workers don't have extraordinarily high rates."

Those data haven't been adjusted yet for gender and country of origin, she adds, but even after the effect of such factors has been taken into account, the rates aren't expected to change dramatically. Moreover, TB rates per 100,000 health care workers have been falling steadily in recent years, says Curtis: from 5.4 in 1994, to 4.9 in 1995, to 4.5 in 1997, to 4.6 in 1998.

Risk-analysis tools can help make sound decisions about the effectiveness of measures aimed at protecting health care workers against TB, says **George Gray**, PhD, deputy director of the Center for Risk Analysis and faculty member of the School of Public Health at Harvard University. Gray also spoke at the December conference.

"There are very few risks which you can eliminate altogether," he says. Since resources are finite, risks and interventions must somehow be prioritized, he adds. "And there are lots of instances in this country where we make investments that aren't as efficient as other decisions we could be making instead." Too often, such decisions are based on anecdotal evidence, politics, or emotion. The kind of risk analysis Gray practices ranks the costs of interventions by the price of each year of life they save.

Environmental regulations rank among the most costly, he says; interventions aimed at protecting workers on the job are generally a much better bargain.

Another factor to consider are countervailing risks — a second set of risks that are engendered, sometimes unwittingly, by trying to protect people against a first set.

One example is the recent drive to force airplane passengers to purchase a separate seat for their young children. If proponents of the separate-seat law prevail, a certain percentage of potential flyers will decide to save money by driving instead; the decision to travel by car, in turn, will place the travelers into a much higher-risk category than flying.

His conference audience brought up an example from the world of TB control, he adds. Respirators designed to offer greater protection against TB can, because of their cumbersome qualities, increase the likelihood of needlesticks and other accidents to those who are wearing them. "People understand the general notion of risk analysis, but they're not following through and thinking about these things in a formal way," adds Gray. "Doing a formal risk analysis helps you make a stronger case when there's a case to be made." ■

Out of the shadows: A sunny outlook on TB

Link asserted between vitamin D, recrudescence

Does vitamin D deprivation hasten the development of TB disease? If you're ready for a long and thoughtful answer to that question, you might want to call up **William W. Stead**, MD, longtime TB clinician and the now-retired director of TB control in Arkansas.

Stead says he was attending a conference in Washington, DC, last December, when the import of one of the presentations struck him like a bolt of lightning. A presenter was talking about foreign-born health care providers, all skin-test positive, who had opted to skip preventive therapy and subsequently were diagnosed with active TB. The diagnoses didn't come just any time of year, mind you, but in the summer, after — Stead hypothesizes — a winter's worth of sunlight deprivation may have precipitated their illness.

"I was quivering with excitement," says Stead. "After the presentation I jumped to my feet and said, 'I hope you'll forgive an 81-year-old man who's as excited as hell!'" The audience appeared glad to indulge him.

For years, Stead explained, he's followed the connections between vitamin D, its apparent effects on the immune system, and TB.

People who emigrated from the Indian subcontinent to the United Kingdom often were diagnosed with TB in the summer, after enduring a long English winter.

It started with researcher A. Stewart Douglas, who explored the connection between time of year, sunlight deprivation, and the recrudescence of TB among immigrants to England from the Indian subcontinent. "These people come from a tropical area where there's lots of sun, and where people wear light clothing," Stead explains. "Then they go to Liverpool or Birmingham, where it's cold and wet, and they suffer sunlight deprivation." Douglas found a strong link between chronology and time of diagnosis: That is, after enduring a dark and chilly English winter, they'd turn up with disease the following summer.

Caucasians don't think much about the vitamin D connection, because they are protected against the vitamin shortage by drinking fortified milk. "But 80% to 90% of dark-skinned people are, to some extent, lactose intolerant; they generally eschew milk," Stead adds.

Stead turned up more research that bolstered the argument. In vitro studies showed a considerable effect of vitamin D on macrophages and T cells; what's more, Stead's longtime friend and colleague, TB expert Alfred J. Crowle, found another curious link: macrophages of healthy African-Americans, even when not vitamin D-deprived and otherwise healthy, appeared to be more "permissive" in the laboratory of the multiplication of TB than macrophages of healthy whites. If the same holds true in vivo, that would leave dark-skinned, lactose-intolerant people even more vulnerable to sunlight deprivation, the reasoning goes.

Still not convinced? Stead directs listeners to a recent account (in the *New England Journal of Medicine*) of a boy from Marshall Islands found

(in summer) to have cavitary disease — a rarity in one so young, but again, Stead suggests, perhaps linked to the striking difference in latitudes between the sunlit Marshall Islands and the chilly reaches of North Dakota.

An account in *Annals of Internal Medicine* may hold a similar moral: An unusual number of cases of TB occurred in a jail over a two-year period; inmates there, most of them African-American, had spent long months indoors, where their chief recreation was lots of basketball played in — guessed it already? — an indoor court, artificially lit.

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Ohio's Brown seeks global TB fund hike

Fought for, won small increase last year

An Ohio Congressman is fighting to increase the budget next year for international TB control from $25 million to $100 million. **Sherrod Brown** (D-OH), author of a proposal soon to be introduced as a bill, last year led a fight on behalf of increased funding for TB internationally; the result was an increase from $25 million to $30 million, the first increase in years.

"As a stand-alone bill, it's not realistic to think this proposal will get much attention," says **Diane Maple**, press relations officer for the American Lung Association. "The language will probably reappear later wrapped into a larger bill." Even if the full amount isn't granted, the effect will be to help keep funding for global TB control on the Congressional radar screen, and to sustain the push for much-needed increases in funding for TB in the international arena.

Brown is a ranking member of the Congressional Subcommittee on Health and the Environment, and a senior member of the International Relations Committee.

The growing threat posed by TB, and especially drug-resistant TB, is on the upswing, notes Brown. "In this time of expanding global commerce and increasing overseas tourism, we're at greater risk than ever for contracting and spreading tuberculosis," he says. "This is a killer that knows no national boundaries. It's just common sense to invest in international TB prevention and treatment."

Last year, Brown and Rep. Connie Morella (R-MD) led a fight on the House floor to increase TB funding by $5 million in the fiscal year 2000 foreign operations spending bill. "I'm proud of that, but it barely scratches the surface of the need, if our goal is to eradicate TB worldwide," says Brown.

Investing in public health is one of the soundest decisions a country can make to improve quantity and quality of life, Brown notes. When Upton Sinclair wrote *The Jungle* in 1906, Americans' life expectancy was 46 years, he adds. Today, it's 76 years — with public health improvements accounting for all but five years of the increase.

Talking about the links between immigration and TB invites the danger of raising anti-immigrant sentiment, Brown concedes. "Close the borders, they will say, and TB disappears." But that's not realistic, he adds. "Unless you cut the U.S. off from international travel and build unscalable walls around the country, you're not going to keep infectious diseases out. If we want to eradicate TB, we have to take responsibility for it." ■

For 10 busy weeks, action — but little TB

Fort Dix is screening base for Kosovar refugees

Screening 4,045 Kosovar refugees in 10 weeks for TB, syphilis, and HIV, while providing acute care, was as tough as it sounds, say experts from the Centers for Disease Control and Prevention (CDC) in Atlanta.

But with hindsight supplied by the experience, future repetitions of such an experience — if there are repetitions — may be easier, predicts **Susan T. Cookson**, MD, acting chief of medical screening and health assessment at the Division of Quarantine (DQ) at the CDC.

The marathon ordeal began last March, when NATO intensified its bombing campaign, leading the Yugoslav army, Serb police, and paramilitary forces to gear up terrorist activities euphemistically known as "ethnic cleansing." Soon, neighboring Montenegro, Albania, and the borders of

Macedonia were mobbed by more than 600,000 refugees fleeing the violence. By the end of May, more than 1.4 million people had been displaced from their homes. Macedonia refused entry to the refugees, calling instead on other nations to help; with thousands of refugees camped in a cold and muddy no-man's land along the Macedonian border, the United States and 39 other countries began to consider taking in refugees.

On April 21, President Clinton announced the decision to take in 20,000 people. By April 28, Fort Dix, NJ, had been designated as the chief processing facility.

That meant there was work to be done, says Cookson. Long before the first refugee set foot there, she explains, the fort had been decommissioned and its hospital mothballed, a consequence of Defense Department spending cuts. Inside the empty fort sits McGuire Air Force Base. The plan called for refugees to be flown into McGuire and then bussed to Fort Dix, there to be "in-processed."

Climbing aboard the 'glory train'

To recruit medical and nursing personnel, electronic notices went out over the Internet to all Public Health Service employees seeking volunteers, says Cookson. Response was immediate. "This was the glory train, and everybody wanted to get on," she says. In all, 90 physicians and 160 nurses did a tour of duty of between 10 and 20 days. Tours were staggered so that crews arrived every three days.

The first order of business was to construct facilities. With little more than the bare shell of an army base to work with, local contractors were hired to bang up walls in an old base dining hall, using a diagram someone had drawn the day before. Supplies and equipment were moved in, and a portable X-ray unit was rented and parked outside the dining-hall clinic.

Just five days after Clinton gave the go-ahead to an airlift, the first planeload of refugees touched down. Their new "home" consisted of a 10-acre fenced compound surrounded by security guards. There were dormitories, a grassy recreation area, a dining hall, a prayer room, and, because no one could leave the base, a convenience store.

The first plane load of 400 people arrived May 5 on a Tower Airlines flight, a Canadian line under contract to the U.S. State Department that specializes in refugee transport. Staff began screening the first arrivals for TB and other "inadmissible conditions" (which include syphilis and HIV); at the start, even though the refugees had a long list of medical conditions that also needed tending to, things went smoothly enough.

Everyone age 15 years and over was X-rayed and assessed for TB; those with medical problems that had gone untreated during the refugees' months in outdoor camps were treated for their diabetes, pregnancy, chronic heart conditions, and the like.

As more planes arrived every other day, the population of the fort began to climb rapidly. So did the demand for acute care, the general workload, and the level of chaos.

"These people had been two months in the field," says Cookson. "They'd been under a lot of stress." There were pulmonary embolisms, pregnancies, head lice, and mental health problems to be tended to. An emergency medical service furnished transportation to a local hospital when necessary, and medical care was provided on site as well.

In the 10-week period, 7,500 prescriptions were written. On a typical day, 200 chest X-rays were performed and read; in all, 2,600 were done. If a chest X-ray looked suspicious, three sequential sputums were collected, and smears performed. In some cases, skin tests were applied.

Under physical and emotional stress

Only six people were hospitalized for mental health problems. "Probably a lot more needed help," adds Cookson. "They'd been without regular medical care for two months, and everyone had endured an incredible amount of stress, both emotionally and physically."

The laboratory, busy to the point of overload some days, found no cases of HIV infection and two cases of infectious TB; the lab performed smears on 76 sputums, of which six were positive for acid-fast bacillus. Chest X-rays showed evidence of inactive TB in 65 people. All told, 10 people were placed on TB treatment.

Keeping medical records straight was challenging, Cookson notes. At first, records were kept by hand; eventually, the system was computerized. Adding to the confusion was the fact that refugees sometimes shared the same name and birth dates; nor were names in the slightest bit familiar to American ears, making the job of

keeping charts matched to lab results especially difficult.

Most refugees were re-settled in California, New York, Texas, Washington state, Illinois, and Florida. Follow-up was pursued aggressively for everyone placed on TB treatment or for those with significant findings on chest X-rays, says Cookson. TB controllers in receiving jurisdictions were notified by a telephone call that they were about to get a refugee with a TB-related condition.

By now, 1,800 refugees have returned home, says Cookson; the TB patients have been advised to remain in the United States until they finish treatment. ■

New NIOSH TB manual provides practical help

OSHA ruling won't alter much, expert predicts

The National Institute for Occupational Safety and Health, better known as NIOSH, has published a new manual for health care facilities on how to set up a respiratory protection program. Titled *TB Respiratory Protection in Health Care Facilities,* the publication marks the first time NIOSH has offered such a guide explicitly tailored to health care facilities.

According to **Nancy Bollinger**, deputy director of the health effects laboratory division at NIOSH, the new document offers lots of helpful explanations, illustrations, and sample documents; it's designed to help readers translate the sometimes lofty language set forth in guidelines and regulations into usable, everyday language, she adds.

"Sometimes when you read 'you have to implement such-and-such,' it sounds very complex," she says. "The guide tries to make it more practical. There are sample documents that show standard operating procedures, fill-in-the-blank forms, checklists, and other information on how you go about doing various things."

The new manual incorporates current guidelines from the Centers for Disease Control and Prevention as well as current regulations in effect at the U.S. Occupational Safety and Health Administration (OSHA). When and if OSHA finally gets around to enacting its new TB standard, now said to be due out sometime in late

CE objectives

After reading each issue of *TB Monitor,* health care professionals will be able to:

- Identify clinical, ethical, legal, and social issues related to the care of TB patients.
- Summarize new information about TB prevention, control, and treatment.
- Explain developments in the regulatory arena and how they apply to TB control measures.
- Share acquired knowledge of new clinical and technological developments and advances with staff. ■

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spring or early summer, Bollinger says NIOSH will publish an update that incorporates any changes.

But that's no reason to delay ordering the NIOSH manual, Bollinger notes. "We think most of what will be in the new OSHA TB standard is already covered here. When the new OSHA document comes out, we'll see what's changed; but I don't think the changes will be that great."

That means administrators who implement the program outlined in the NIOSH manual won't be faced with making lots of changes once OSHA publishes its new rules, she adds.

In the spirit of user-friendliness, the NIOSH manual's section on respirators includes pictures of the various kinds of respirators available; lists the pros and cons of each kind; and offers help in choosing which kind is the best for a given situation.

There's also information on respirator fit-checking (the proper term now is "user-seal checks," notes Bollinger) and respirator fit-testing.

The new manual is free, and it can be ordered by calling (800) 356-4674 and requesting publication No. 99-143. A copy of the manual also can be downloaded from the NIOSH Web site at www.cdc.gov/niosh. ■

Effects of aging on TB subject of March course

"The Changing Face of Tuberculosis With Aging" is the subject of a new course that will be offered March 2 by the New Jersey Medical School's National TB Center. Presenters will discuss age-relation variations from the medical perspective, considerations for drug adherence and incentives, and the ways age affects contact investigations.

To register or for additional information, call (973) 972-4811. ■