Advances and retreats on AIDS Front

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Sobering reports about drastically underutilized but proven HIV/AIDS prevention tools tempered good news at the XVI International AIDS Conference about increases in the number of people accessing treatment and in funding for new prevention research.

For each new recipient of treatment last year, 10 others were newly infected — about 450 000 compared to more than 4 million, Microsoft founder and philanthropist Bill Gates observed at the opening ceremony of the mid-August gathering in Toronto.

The goal of universal access to treatment, or even a significant increase, can't succeed without a drop in the rate of infection, he told the roughly 21 000 delegates to the conference, themed "Time to Deliver".

About 40 million people now live with HIV/AIDS. Last year, the disease led to 3 million deaths.

The development of effective microbicides, gels that women can use to protect themselves against infection, and oral drugs that block HIV, "can be the turning point" in the epidemic, said Gates, whose foundation recently contributed millions to advance preventive research. (The development of effective HIV/AIDS vaccines is widely acknowledged to be at least 10 years away.)

But Quarrisha Abdool Karim of South Africa decried "a global failure to translate evidence into action." The prevention of mother-to-child transmission was heralded as a breakthrough 6 years ago, yet today, fewer than 10% of pregnant women with HIV/AIDS have access to drugs that significantly decrease rates of transmission to their babies. Without treatment, the transmission rate is about 30-to-40%, and about 600 000 infants are born annually with HIV.

Moreover, pregnant women in the developing world who do have access to treatment typically receive medication that's far less effective than combination therapy available to women in countries like Canada, which reduces transmission almost to zero.

canapress

Diplomats have lauded the efforts of the "Grannies of Africa" who've stepped up to rear another generation of children in the wake of the AIDS epidemic.

Similarly, a "condom gap" sees countries like Uganda and Botswana supplying men with only 3 condoms a year. And there's widespread failure to implement needle exchange programs in the face of solid scientific evidence of their effectiveness in reducing infection rates. Injection drug use and shared needles are driving the HIV/AIDS epidemic in Eastern Europe and Asia, accounting for 10% of new cases worldwide.

Delegates also decried conditions placed on prevention activities by funding agencies, most notably the US President's Emergency Plan for AIDS Relief (PEPFAR), which formally devotes one-third of its $15-billion budget to programs that promote ABC: abstinence, being faithful and condoms.

"I was faithful when I got married but I still got AIDS . . . Our leaders are exporting from the United States programs that have been known to fail there," said Ugandan activist Beatrice Were. "ABC assumes women have a high degree of control. It has unleashed a new wave of stigma — 'she was careless, she didn't abstain, she was unfaithful'."

While it didn't meet its goal of getting 3 million people into HIV/AIDS treatment programs by 2005, a 2003 World Health Organization (WHO) initiative did succeed in ramping up access to treatment. In Africa, the number of recipients rose to 800 000 from 100 000. Overall, some 1.5 million are now being treated. "We have achieved more in the past 5 years than the previous 20," Peter Piot, director of the joint United Nations program on HIV/AIDS said, arguing that it's time to move from an emergency to a long-term sustainable response.

But danger signs lurk. While leaders of G8 nations pledged last year to provide near-universal access to HIV/AIDS treatment by 2010, the Global Fund to fight AIDS, Malaria and Tuberculosis remains underfunded. Pledges for this year fell short by $500-million and fully $30 billion will be needed by 2010, Stephen Lewis, UN special envoy to Africa for HIV/AIDS, told delegates. There's also a critical need for health care workers to operate prevention and treatment programs. For example, in Indonesia, where antiretroviral therapy is free, there aren't enough centres where people can seek treatment and counselling, while 57 countries, mostly in Africa and Asia, face crippling short-

ages of health workers. In response, the WHO last week launched a new plan, entitled "Treat, Train, Retain." Meanwhile, disturbing new research revealed that since 2000, infection rates in Uganda — long touted as a leader in tackling the epidemic — have either plateaued or even increased after years of significant annual declines.

While the rallying cry "universal access to treatment" was oft-heard at the conference, the slogan was oft-modified to emphasize universal access to "prevention, treatment and care." Half of new HIV/AIDS infections are among 15–24-year-olds, yet few prevention or treatment programs target the age group and most donors object to treatment literacy initiatives that help people understand either the nature of the disease or its treatments, said South African activist Gregg Gonsalves.

Just a decade ago, the cost of front-line AIDS treatments averaged $20 000 per patient year, clearly prohibitive for the developing world. Thanks to AIDS activists and agencies like UNAIDS and the Clinton Foundation that have worked with brand name and generic drug companies, that's now hovering at about $150/year. Some 10 pills/day were once the norm. That's now down to 3 and the US Food and Drug Administration recently approved a 1-a-day formulation. But about 10% of treatment recipients will develop drug resistance by 2010, which has major cost implications as second-line therapies in developing countries typically cost 10 times more.

Yet, the HIV/AIDS pandemic is more just a medical, scientific and economic challenge, incoming president of the International AIDS Society president, Dr. Pedro Cahn, told the largest and most diverse conference devoted to a global health issue. "Poverty is the driving force of this epidemic," while the spread of the virus continues to be linked to stigma and discrimination. When 3 members of the Blue Diamond Society in Nepal died of AIDS, families wouldn't claim the bodies and no ambulance would pick them up for transport to the crematorium. "We had to carry the bodies ourselves," said Suni Babu Pant, co-founder of the society for lesbian, gay and transgendered Nepalis.

Piot argued such stigmatization must end. "We need to get serious about protecting human rights. If we don't advance social justice as we advance science, we are doomed to failure." – Ann Silversides, Toronto

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MED-1: Hospital on wheels

Earlier this year, a New Orleans blogger noted on his Web site that a mobile hospital deployed to Mississippi last September to care for victims of Hurricane Katrina was now en route to New Orleans for Mardi Gras.

"Does that mean they are planning for Mardi Gras to be a disaster?" he asked.

Not quite. North Carolina's MED-1, a one-of-a-kind hospital on wheels, was sent to New Orleans at the request of the US government to boost the number of hospital beds available during Mardi Gras, when the population of the devastated city was expected to swell temporarily.

Last fall, after Katrina slammed into the Gulf Coast, MED-1 — an acronym for Medical Emergency Department — treated 7500 patients on its debut mission to Waveland, Miss. One of the few success stories in the bungled response to the deadly storm, MED-1 took over for area hospitals knocked out by Katrina's floodwaters and violent winds.

MED-1 began as the brainchild of Dr. Tom Blackwell, medical director for the Center for Prehospital Medicine at Carolinas Medical Center in Charlotte, NC, who set out in 2000 to create a mobile hospital sophisticated enough to serve areas paralyzed by terrorist attack or natural disaster.

The US Department of Health and Human Services and several other nations' governments have expressed interest in purchasing a MED-1.

Blackwell's self-contained hospital, built over several years at a cost of $1.5 million to the US Department of Homeland Security, fits into 2 standard-size tractor trailers. Slide-out walls expand 1 trailer into a 90-square-meter hospital that includes 7 general care beds, 4 critical care beds, a dental chair and a 2-bed operating room.

The unit, which is self-sustaining for 48 hours, has complete lab, radiology, ultrasound and pharmacy facilities, and satellite communications for off-site consulting.

A special filtration system allows MED-1 to operate in biologically hazardous conditions. An attached air-conditioned tent, carried in the support truck, accommodates 88 additional cots.

Designed for speedy, 1-hour setup, MED-1 can handle a wide range of medical and dental emergencies, including cardiac arrest, orthopedic sta-

Courtesy J. Brooks

Medical staff prepare for patients inside the mobile hospital.