

WHO hopes 3-by-5 plan will reverse Africa's HIV/AIDS epidemic

WHO together with UNAIDS, unveiled plans on 1 December, World AIDS Day, to get urgently-needed treatment to millions of AIDS patients in developing countries, as the global HIV/AIDS pandemic hit grim new highs according to a recent UNAIDS/WHO report.

The AIDS Epidemic Update 2003, released on 25 November, said that 40 million people — 5 million of whom were infected in 2003 — were living with HIV/AIDS. It said that over two-thirds of the world's HIV/AIDS cases were in southern Africa but that now the virus was spreading fastest in eastern Europe and central Asia, where the number of cases tripled between 1999 and 2002.

WHO's plan to get antiretroviral (ARV) treatment to 3 million people by 2005, known as the 3-by-5 initiative, is seen as a vital step to providing universal treatment for AIDS patients across the world.

"Antiretroviral therapy was hailed in the 1990s as a triumph of modern science. Experts and the media proclaimed ... the defeat of AIDS Sadly, that optimism was misplaced," WHO Director General, Dr LEE Jong-wook, told high-profile guests at the "3-by-5" launch in Livingstone, Zambia.

LEE said that WHO's 3-by-5 initiative had been made possible by the current political and financial attention being paid to AIDS by multilateral institutions such as the World Bank and the Global Fund to Fight AIDS, Tuberculosis and Malaria, coupled with US President George Bush's pledge to donate US\$ 15 billion to AIDS treatment and other pledges from groups like the Bill and Melinda Gates Foundation. All of this has been further complemented by the efforts of pharmaceutical companies to reduce the prices of patented AIDS drugs.

LEE said the initiative had in part been inspired by groundbreaking work by nongovernmental organizations such

as Médecins Sans Frontières and that its success would depend on national and international agencies and "critically, the courageous contributions of national governments, especially in Africa, to increasing their people's access to ARV-based AIDS care."

Under the new WHO plan, about 100 000 new paramedics and nurses in developing countries will be trained to provide simplified treatment and prescribe newly-WHO-approved fixed-dose combination drugs to AIDS patients.

The single pills — which have recently been added to the "Prequalification" list of medicines meeting WHO standards — contain three drugs: lamivudine, stavudine and nevirapine which temporarily suppress viral replication and improve symptoms. Two of those fixed-dose triple combination drugs are produced by Indian generic drugs company Ranbaxy and the third, by India's Cipla.

Fixed-dose drugs have proved successful in treating malaria and tuberculosis. Whether in the form of a single pill or a "blister" pack containing three pills, such triple combinations are cheaper to deliver, provide medication that is easier for patients to follow than three separate pills and can be prescribed by medical staff who are not qualified doctors.

The WHO Prequalification Project — part of the 3-by-5 strategy — aims

to assess the quality, safety and clinical efficacy of HIV medicines distributed in developing and transition countries. Currently the Prequalification list contains over 50 single-drug, two-drug and three-drug combinations, including the three newly-qualified products. The Prequalification Project is a core element of the new AIDS, Medicines and Diagnostics Service (AMDS), a new mechanism created to make sure that the supply of safe, effective and affordable medicines of good quality are more easily accessible.

UNAIDS Executive Director, Dr Peter Piot, said he hoped that once ARV treatment was widely available in the developing world more people would come forward to be tested and that this would help raise awareness of the disease and stem the spread of the deadly virus.

"Most people in Africa or outside Africa who are infected with HIV have no clue that they are [infected] because there is no access to testing facilities, but above all there is no incentive to know because there's no treatment at the end of the test — all there is is discrimination, rejection, losing your job," Piot told the BBC in a recent interview.

The 3-by-5 launch coincided with two reports highlighting the impact of the disease in developing countries. A report on the state of food insecurity in the world in 2003, published by the UN Food and Agriculture Organization



The WHO/UNAIDS 3-by-5 strategy aims to provide antiretroviral treatment to 3 million people living with AIDS by 2005.

P.Virot/WHO

How will WHO achieve "3-by-5"?

1. Simplified, standardized treatment:

- WHO has cut the number of recommended treatment regimens from 35 to four.
- WHO now recommends quality-assured, fixed-dose combinations of lamivudine, stavudine and nevirapine in a single pill as first line treatment.

2. Improved access to medicines and diagnostics:

- The AIDS Medicines and Diagnostic Service (AMDS) aims to ensure poor countries have access to quality medicines and diagnostic tools at the best prices.
- Prequalification Project: WHO will evaluate and monitor medicines and diagnostics to ensure that manufacturers, products, procurement agencies and laboratories meet international quality, safety and efficacy standards.

3. Training scale-up:

- A training programme aims to teach tens of thousands of community health workers to deliver antiretroviral treatment and to monitor patients to ensure they are receiving and taking their medicine.

4. Urgent country-level support:

- WHO teams have begun work with governments to identify and help remove obstacles preventing antiretroviral treatment from reaching those who need it most. Teams have already travelled to Kenya, Burkina Faso, Malawi and Zambia. Other teams have done preparatory work in Ukraine and India.

5. Funding scale-up:

- WHO estimates that the funding required by countries to scale up treatment for three million people by the end of 2005 is approximately US\$ 5.5 billion. This includes the cost of strengthening the health systems as well as procuring and distributing the medicines.

concluded that AIDS has had a devastating effect on agriculture and food supply in poor countries by decimating adult populations, including one fifth of farm workers across southern Africa.

UNICEF also issued a report on the effects of HIV/AIDS predicting that the number of AIDS orphans (children who have lost either their mother or both parents) would nearly double to 20 million in sub-Saharan Africa — as many as 12% of all the region's children — in the next seven years.

In an attempt to reduce the economic impact of the disease, seven major international companies joined forces with the Global Fund to Fight AIDS, Tuberculosis and Malaria to boost prevention and treatment of HIV/AIDS for their employees and their families in Asia and Africa. The initiative, dubbed the Global Business Coalition, comes after years of seeing their workforces decimated by the killer disease and won praise from US Secretary of Health, Tommy Thompson, who was in Nairobi, Kenya, for its launch on 3 December.

South Africa's electrical utility Eskom and mining group AngloAmerican, US oil giant Chevron Texaco, US-German automobile group DaimlerChrysler, Dutch brewer Heineken, French construction firm Lafarge and India's Tata Steel said they would use company facilities to expand HIV/AIDS treatment and prevention in the workplace.

The International Federation of Red Cross and Red Crescent Societies said its ability to function was being threatened by the pandemic as it announced a new fund to provide antiretroviral treatment for some 200 000 workers and volunteers living with HIV/AIDS. ■

Fiona Fleck, *Geneva*

Neglecting health systems costs too many lives, states *The world health report 2003*

Urgent investment and international support is needed to rebuild health care systems in developing countries if global health goals are to be met says *The world health report 2003 — Shaping the future*, launched in Geneva on 18 December.

The need for a country-level focus on health systems and services has been prompted by the continuing HIV/AIDS pandemic, deadly outbreaks of diseases such as SARS and the challenge of completing polio eradication — all of which are symptoms of the failure to invest in health systems.

"Even before I took office I travelled to China to view the impact of SARS and appreciated the importance of stronger health systems to deal with this latest epidemic," said Dr LEE Jong-wook, Director-General of WHO. "And there will be more to come, hence the urgency

of strengthening our ability to respond to and prevent epidemics, whether they be local or global," said LEE.

The need to urgently refocus on health systems is also illustrated by the huge variations in life-expectancy between developing and developed countries. A baby girl born in Japan, for example, can expect to live for about 85 years. A baby girl born at the same moment in Sierra Leone, on the other hand, can expect to live for only 36 years. The girl in Japan will receive some of the world's best health care whenever she needs it but the girl in Sierra Leone may never see a doctor, nurse or health worker.

"These global health gaps are unacceptable," said LEE who highlighted failing health systems as obstacles to progress in achieving the health-for-all goal enshrined in the Alma-Ata Declaration on Primary Health Care 25 years ago. Overcoming the gross health inequalities experienced between and within countries means "working with countries — especially those most in need — not only to confront health crises, but to construct sustainable and equitable health systems," he said. The principle of equitable access to health is central to WHO's current main objective: increasing access to HIV/AIDS treatment in developing countries.

The report says that whilst HIV/AIDS has cut life expectancy by as much as 20 years for many millions of people in sub-Saharan Africa, even without the impact of this disease, millions of children born in African countries today are at greater risk of dying before their fifth birthday. The risk for women dying in childbirth, says the report, is 250 times higher in poor countries than in rich ones. Some of the 500 000 deaths which occur each year as a result of complications during pregnancy could be avoided by improvements in health care systems.

Comprehensive health care systems must include prevention and control of noncommunicable diseases, the report says, highlighting the spread in developing countries of epidemics of heart disease, stroke and other chronic diseases which in addition to communicable diseases create what it refers to as a "double burden."

The report appeals for international support in countering some of the main weaknesses in health care systems including critical shortages of health care workers, inadequate health information, a lack of financial resources and the need for more government leadership aimed at improving the health of the poor.

“Effective action to improve population health is possible in every country but it takes local knowledge and strength and sustained international support to turn that possibility into reality,” said LEE. ■

Climate change to increase incidence of diseases

Climate change is likely to increase the global incidences of diseases such as malaria, diarrhoea and malnutrition around the world, according to a new study examining the health impacts of climate change launched by WHO and partners on 11 December.

Climate Change and Human Health — Risks and Responses, was launched at the 9th Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change in Milan, Italy. It examines how weather, air pollution and water and food contamination affect the way diseases emerge and represents the most recently available scientific data on the issue.

“There is growing evidence that changes in the global climate will have profound effects on the health and well-being of citizens in countries throughout the world. We must better understand the potential health effects particularly for those who are most vulnerable, so that we can better manage the risks,” said Dr Kerstin Leitner, WHO Assistant Director-General for Sustainable Development and Healthy Environments.

Climate change is responsible for 2.4% of all cases of diarrhoea and for 2% of all cases of malaria worldwide according to the most recently available figures; if global temperatures increase by up to three degrees Celsius, several hundred million more people will be exposed to malaria every year. If greenhouse gas emissions continue to grow, by 2030 the risk of diarrhoea will increase by 10%, the report estimates. In 2000, climate change was responsible for 150 000 deaths overall and 5.5 million disability-adjusted life years.

The world’s temperature has increased by around 0.4 degrees Celsius since the 1970s and now exceeds the upper limit of natural (historical) variability, says the report, and it continues to rise. The 1990’s were the hottest decade on record and this summer 20 000 people died in Europe due to extremely high temperatures.

Changes in rainfall patterns have also had a major impact on health and will continue to do so. The report predicts, for example, that Bangladesh, India, Myanmar and Vietnam will face a “significant increase” in malnutrition cases because the predictable monsoons which those countries depend on to grow rice are threatened by constant climate change.

The report, co-authored by WHO, the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) with the support of the United States Environmental Protection Agency (EPA), also suggests ways in which all countries can monitor and control the health effects of climate change. ■

SARS case confirmed in southern China

Results of laboratory tests have confirmed a case of SARS on 5 January in a 32-year-old man in the southern Chinese province of Guangdong. It is the first case of SARS in 2004 and the first case not linked to a laboratory accident that has occurred since the initial outbreak of SARS was declared contained on 5 July 2003.

The patient, a television producer, has been under treatment in isolation at a hospital in the provincial capital, Guangzhou, since 20 December 2003. The suspected case was first reported by Chinese authorities on 26 December and has been under investigation, with the support of WHO ever since. Initial diagnostic tests were inconclusive.

The confirmatory tests were conducted in China, Hong Kong Special Administrative Region by the University of Hong Kong and the Government Virus Unit at Queen Mary Hospital. Both laboratories are members of the WHO Multicentre Collaborative Network for SARS Diagnosis that collectively identified the SARS coronavirus in mid-April 2003.

The source of infection in this new case remains unclear. Studies conducted last year detected a SARS-like virus in some animal species, including the masked palm civet suggesting that SARS may have originated from contact with wild animals sold for human consumption. Retrospective analysis of patient records linked several of the earliest cases to contact with wild animals. However, epidemiological investigations in China

have yet to link the patient to exposure to wild animals.

All the patient’s contacts have been traced and all are reported free of symptoms. Surveillance for additional cases has been intensified in Guangdong and other provinces. Additional WHO teams have been sent out to assist in research aimed at identifying the source of infection and preventing further cases. ■

Half a million tuberculosis patients to get free medicines

Half a million tuberculosis patients in developing countries are to receive free life-saving drugs under an agreement signed on 19 December 2003 by WHO and the pharmaceutical company, Novartis. The drugs will be supplied to programmes using DOTS, the internationally recommended strategy for tuberculosis control.

“Novartis has taken a strong lead in fighting tuberculosis and we encourage other drug manufacturers to follow their example. Massive investment in patient care from the pharmaceutical industry will have an enormous impact on reducing the TB [tuberculosis] death toll,” said WHO Director-General, Dr LEE Jong-wook. Tuberculosis kills almost 2 million people every year.

Novartis will donate the drugs to the Global Drug Facility, hosted by WHO and overseen by the Stop TB Partnership. The facility has provided drug procurement support and medicines to 2.8 million tuberculosis patients in 65 countries since its launch in 2001. The drugs will be provided over five years to countries scaling up control of the disease with support from the Global Fund to fight AIDS, Tuberculosis and Malaria.

Richard Feachem, Executive Director of the Global Fund, applauded the donation as an example of a public-private partnership — something the organization seeks to encourage. “We are very pleased that Novartis will reinforce the boost the Global Fund is supplying to countries that are stepping up the fight against TB,” he said.

Under the agreement, Novartis will manufacture special patient kits containing fixed-dose combination tablets in blister packs. The design improves patient compliance and reduces the risk of developing drug-resistant tuberculosis, which is far more costly and difficult to treat. ■