Ailing Russian health-care system in urgent need of reform

The Russian Federation needs to overhaul its corrupt and inefficient health-care system if it is to provide regular medical assistance and help the country fight an AIDS epidemic, officials have said.

"We just cannot go on like this — slowly dying — any more. We need to keep the best of what has been achieved but finally bring the system in line with market realities," said Tatyana Yakovleva, Chairwoman of the Health Protection Committee in the State Duma lower house of parliament, a body responsible for the drafting and examination of health-related bills before they are put to vote.

Although communism collapsed in the country thirteen years ago, the Soviet free-for-all health care system has survived virtually intact — a system which the government and the public agree makes bad use of limited budget resources, leaving millions of people without basic services and forcing doctors — many of whom earn under US\$ 100 a month — to accept bribes.

Russians who can afford fees charged by the private sector tend to stay away from state-run facilities where patients are routinely driven to bribing personnel to obtain services which are supposed to be dispensed free of charge. Research carried out by Moscow's INDEM think-tank shows that Russians spend some US\$ 600 million a year on such under-the-counter payments.

Complaints about the poor quality of medical services, crumbling infrastructure and blatant mismanagement appear almost daily in the Russian media. Many hospitals, especially in remote areas, have no hot water and some have no running water at all; even the most basic medicines are often in short supply.

The quality of medical assistance also varies considerably between Russia's 88 administrative regions depending on local economic conditions.

"The majority of the population have no access to quality health care," said Oleg Shchepin, a member of the Russian Academy of Medical Sciences and director of a research institute. "To give you one example, the number of people suffering from kidney diseases and bronchitis among Russia's have-nots is six times higher than among our better-off citizens."

Putting additional strain on the already ailing health-care system are the unhealthy lifestyles of many Russians. Life expectancy among Russian men has fallen to just 58.5 years — the lowest in the developed world — as the chaotic market reforms of the 1990s marginalized millions of people and led to an upsurge in heart disease, alcoholism and drug abuse. The latter is seen as a key cause of the country's AIDS epidemic.

According to a report by the United Nations Development Fund (UNDP), released on 17 February 2004, growth rates of new HIV infections in the Russian Federation are among the world's highest. Currently, an estimated one million people in the country are HIV-positive. According to the World Bank, this figure could rise to 5.4 million, in an "optimistic scenario," and to 14.5 million in a "pessimistic scenario." The UNDP report warned that, without action, the HIV/AIDS epidemic could cost the Russian Federation 20 million lives and 14% of its GDP by 2045.

Reforms drafted by the Russian Government involve scaling down to a bare minimum the range of free medical assistance guaranteed by the state, closing down a large number of hospitals, putting emphasis on primary care, and increasing doctors' salaries by paying them for dispensed treatment rather than the amount of hours spent at the desk.

Igor Sheiman, head of a team of experts advising President Vladimir Putin on health-care reform, believes the system is suffering not so much from a lack of finance as from an extremely inefficient allocation of resources, the bulk of which is spent on an absurdly vast network of hospitals at the expense of primary care.

"Not even the richest country in the world can afford that. Our people go straight into hospitals," Sheiman said. "Experts believe that up to 30% of all hospitalizations are unjustified. That entails enormous losses."

According to Sheiman, it has been proved that between 80–90% of illnesses can be dealt with at the primary health-care level which would produce

a much cheaper national treatment bill. "The whole world saves on that — beefing up primary care — while we have the highest rate of hospitalizations in the world," said Sheiman.

Andrei Shukshin, Moscow

Ireland stubs out smoking in the workplace

Ireland became the first country in the world to prohibit smoking in the workplace on 29 March 2004. The ban amounts to tobacco-free environments in all enclosed public spaces — including restaurants and the country's famous pubs, where a cigarette and a pint of stout have long been traditional habits.

"It's an important accomplishment, and it sends a good, strong message to the rest of the world," said Vera da Costa e Silva, Director of WHO's Tobacco-Free Initiative.

Much of the media coverage of the ban has focused on disgruntled pub proprietors and patrons. Although 30% of the Irish population currently smoke, few have formally objected to or violated the ban since it was enacted, said Valerie Coghlan, administrator of the Irish branch of Action on Smoking and Health, a London-based advocacy group whose mission is to eliminate smoking in society.

The ban was announced just four days after Ecuador and The Republic of Congo signed the WHO Framework Convention on Tobacco Control, bringing the total number of participating countries to 100 and the total number of signatories to 101, including the European Community. Negotiated worldwide under the auspices of WHO, this convention is the first legal instrument designed to reduce tobacco-related deaths and disease around the world. It obliges signatories to meet minimum standards on tobacco-related issues such as cigarette advertising, protection from second-hand smoke, tax and price measures, as well as packaging and labeling.

The convention is the centrepiece of an overall effort by WHO to shift views on smoking, according to da Costa e Silva. "We now have clear evidence that nicotine addiction is a disease. Therefore, smoking should be treated as a preventable and treatable epidemic," she said.



A woman smokes a cigarette outside a pub in County Louth, Ireland, 29 March 2004, as the country becomes the first in Europe to ban smoking in the workplace, including pubs and restaurants.

It is an epidemic that is expanding rapidly. Barring more effective intervention, the total number of tobacco users is expected to rise from the current 1.3 billion to 1.7 billion by 2025. Tobacco use now kills 4.9 million people each year, with the heaviest toll in developing countries, where 7 out of 10 smokingrelated deaths occur.

Experience suggests the measure taken by Ireland could turn out to be the simplest and most effective way to discourage smoking and encourage cessation. "In enacting a workplace ban, you send a message: 'We want you to live in a healthy environment.' That message creates a supportive atmosphere for smokers to quit, especially if you offer them help," da Costa e Silva said.

Ireland's Government prepared for the ban by concurrently bolstering smoking cessation programmes, Coghlan said. "We now have a national hotline for smokers wanting to quit, and many of our pharmacists have completed a training program to become special advisors. There are big posters everywhere alerting people about how to get help, and they are responding."

A workplace ban is a major step toward protecting the public against passive smoking, which puts adults at risk of lung cancer and children at risk of respiratory infections and asthma, according to the US Environmental Protection Agency.

Research also has shown that reduced exposure to passive smoking decreases acute cardiac events. In one striking study, presented at an American College of Cardiology conference in March, researchers reported a 60% drop in heart attack admissions at local hospitals during a six-month temporary smoking ban in public buildings in Helena, Montana, a city with a population of 65 000 in western US.

Ireland's choice of a workplace ban was inspired, said Haik Nicogosian, Regional Advisor for Europe at WHO, because it shifts the public's focus away from the right of people to do as they please in restaurants and bars, which has been at the centre of the debate. "Now the focus is on to the rights of workers, and not the rights of customers, to be in a smoke-free environment. It is a more winning approach," he said.

To date only a few countries have experimented seriously with smoking bans. The US has piecemeal local regulations on indoor smoking, in New York City — a pioneer in anti-smoking legislation — and Boston, for example. A number of countries — including Egypt, the Republic of Korea, the United

Republic of Tanzania, Thailand and Uganda — forbid smoking in specific locations such as educational institutions and hospitals.

The question now is whether Ireland's move will set off a wave of comprehensive anti-smoking legislation. "Norway has already passed laws that will go into effect in July, and Sweden and Malta have plans to institute similar bans. In addition, the UK has indicated its intention to enact a ban of its own," said Nicogosian.

In the developing world, total smoking bans are unlikely to appear any time soon, said Carmen Audera, a technical officer at WHO's Tobacco-Free Initiative. "There is a simple reason. Smoking arrived in developing countries relatively recently, and they have not yet begun to experience the mortality that starts three decades after the onset of an epidemic. That is why they are moving more slowly," she said.

Judith Mandelbaum-Schmid, Zurich

Monkey malaria could represent a new human strain

Monkey malaria may be more widespread among humans than previously thought and could represent a new strain of the disease more dangerous to humans, says a new study published in the UK-based medical journal, the *Lancet* (2004;363:1017-24).

The study's authors, Professor Balbir Singh from the Faculty of Medicine and Health Sciences at the Universiti Malaysia Sarawak and colleagues, found that the monkey malaria parasite, *Plasmodium knowelsi*, accounted for 58% of malaria cases in Kapit division in Sarawak, Malaysia. These cases had previously been misidentified as *Plasmodium malariae*, one of the four human parasites.

Blood samples taken between March 2000 and November 2002 from 208 patients with what was thought to be *P. malariae* were tested using genetic sequencing and 120 of these turned out to be *P. knowelsi*. The misdiagnosis is thought to have occurred due to similarities in appearance on thick blood-films between the two strains and the fact that laboratory technicians are only trained to recognize the four species of human parasites, *Plasmodium falciparum*, *Plasmodium vivax*, *Plasmodium ovale* and *P malariae*.

Nick White, Professor of Tropical Medicine at Mahidol University in Thailand and Oxford University in England, said in a commentary accompanying the study that repeated misdiagnosis of monkey malaria could explain occasional reports of malaria in people exploring or travelling through uninhabited jungle areas or nature reserves.

"There have been rare reports of natural human infections with monkey parasites but nothing on the scale reported by Balbir Singh and colleagues," said White in the commentary.

Bernard Nahlen, Senior Scientific Adviser at WHO's Roll Back Malaria programme in Geneva, added that there are many non-human strains of malaria, which can infect birds, reptiles and other mammals.

"The finding here that a monkeystrain has been found frequently in humans is the interesting point," said Nahlen.

The study raises the question of whether monkey malaria was already or would become capable of human to human transmission.

Whereas *P malariae* multiplies every three days in the blood and infections are never severe, *P. knowlesi* multiplies daily and is potentially dangerous.

However, John Barnwell, Chief of the Research and Development Laboratories Unit of the Malaria Branch Division of Parasitic Diseases at the US Centers for Disease Control and Prevention, pointed out that because antimalarials have not been used on monkeys, their parasites are still drug-sensititive and are easily treated with chloroquine. What is important is the potential for the emergence of a new human disease, said Barnwell.

Scientists have established that human-to-human transmission of monkey malaria is possible under laboratory conditions but so far have not found cases of natural transmission.

"The very high numbers of infections in this small area and close timescale could set up the potential to have natural human-to-human transmission happening now or in the near future," Barnwell said, referring to the study.

"This is how new diseases emerge all the time and the potential to establish a new human malaria is there," said Barnwell, adding that genetic data suggests that *P vivax*, the second major human malaria strain which first infected humans 40 000 to 60 000 years ago in south-east Asia, was derived from the local monkey malaria populations.

Barnwell said it would be interesting to monitor whether other species of monkey malaria such as *Plasmodium cynomolgi* which are present in monkeys in the Sarawak region of Borneo could be infecting humans too.

Dr Kevin Palmer, Regional Malaria Adviser at WHO's Regional Office for South-East Asia in Manila, agreed that more research was needed to establish the full implications of these findings.

"At this point it is clearly not a public health problem but if it turns out that *P knowlesi* has or is in the process of adapting to human transmission, we may be facing a future problem ... a fifth species of human malaria," said Palmer.

Fiona Fleck, Geneva

Microbicides preventing HIV infection could be available by 2010

First generation topical microbicides aimed at preventing HIV infection in women could be available as early as 2010, researchers told participants at the Microbicides Conference 2004 held in London on 28–31 March.

About 60 of these drugs in the form of creams, gels, sponges or pessaries, designed to prevent the sexual spread of HIV, are currently under development.

Of those, 18 are at clinical trial stage including six that are due to enter large-scale phase III trials in the second half of this year. Topical microbicides work by forming a protective coating around mucosal cells that either kills or inactivates HIV reducing the risk of vaginal or anal transmission.

"Even if the products are as low as 40% effective — which means they would bring about a reduction of 40% in the HIV transmission rate — they could still have a major impact on public health," said Professor Janet Darbyshire of the UK's Medical Research Council and co-chair at the conference. "However we hope that they will be considerably more effective — certainly some of the 'second generation' products in the pipeline look very promising."

Research from the London School of Hygiene and Tropical Medicine showed recently that some 2.5 million new cases of HIV infection globally could be prevented in just three years even if the microbicide only brought about a reduction of 60% in the HIV transmission rate (*BMJ* 2004;328:305).

In the absence of an effective vaccine, increasing attention is being paid to the development of microbicides. According to a recent commentary in the UK-based medical journal, the *Lancet* (2004;363:1002-3), in many developing countries, AIDS is taking a disproportionate toll on women. Biologically, women may be up to four times more vulnerable to HIV infection. The need for a discreet female-controlled method for the prevention of HIV-infection is further affirmed by the lack of economic and social power preventing many women from negotiating safe sex.

"The development of a safe, effective microbicide would be the biggest innovation in women's reproductive health since the introduction of the [contraceptive] pill," said Lore Heise, Director of the Global Campaign for Microbicides.

Stephen Lewis, the United Nations envoy on AIDS, told the conference that the numbers of infected women had grown exponentially, so that virtually half the infections in the world were amongst women. In Africa the rate was 58%, rising to 67% between the ages of 15 and 24, he said.

"This is a cataclysm, plain and simple. We are depopulating parts of the continent of its women," Lewis said.

Like vaccines which are also at clinical trial stage, microbicides may

succeed where safe sex campaigns promoting condom use and abstinence have failed to change sexual behaviour, with devastating consequences.

One of the first microbicide products likely to come on the market in the next 5 to 10 years is TMC-120 produced by US pharmaceuticals giant, Johnson & Johnson. The US company told the conference it would grant royalty-free rights to this promising new drug to the US-based non-profit organization, the International Partnership for Microbicides.

The drug, originally developed as an antiretroviral by Johnson & Johnson's Belgian subsidiary, Tibotec Pharmaceuticals, has since been developed into a gel for use particularly in resource-poor countries and has already undergone early stage clinical trials. Under the agreement, the International Partnership for Microbicides will conduct the remaining trials necessary for regulatory approval, which could cost between US\$ 50 million and US\$ 100 million.

Other products entering phase III trials include dextrin sulfate, from the UK firm, ML Laboratories; PRO-2000 gel, a synthetic naphthalene sulfonate polymer from the US company Indevus Pharmaceuticals; cellulose sulfate from CONRAD, a partnership between the Eastern Virginia Medical School in the US and the US Agency for International Aid (USAID); Carraguard from the Population Council, an international non-profit organization; BufferGel from the HIV Prevention Trials Network (HPTN), a worldwide collaborative clinical trials network, and a vaginal gel known as C31G, developed by US pharmaceuticals company, Biosyn Inc.

Further information on the conference, Microbicides 2004 is available at: http://www.microbicides2004.org and further information on microbicides is available at: http://www. microbicide.org

Fiona Fleck, Geneva

In brief

US relaxes ban on editing foreign research

Last month the Bulletin (2004;82:312) reported on the US trade embargo ruling which made it illegal for publishers of

scientific journals in the US to peer review and edit manuscripts from countries subjected to the US Government's trade embargo. Since then the government has eased off, apparently leaving publishers free to work on manuscripts from the Islamic Republic of Iran and other embargoed countries.

The relaxing of the ban was signalled by a letter from the US Department of the Treasury on 2 April to a lawyer for the Institute of Electronic and Electrical Engineers — which had stopped accepting papers from embargoed countries - saying that the organization's peer review, editing and publishing was "not constrained" by regulations from the department's Office of Foreign Assets Control.

New SARS scare in China

China has reported two confirmed cases of SARS and six suspected cases since 22 April. Six of these are in Beijing and two, including a fatality, are in the eastern province of Anhui.

Results of investigations to date point to laboratory research at the National Institute of Virology in Beijing as the likely source of the outbreak. The institute has been engaged in research with the SARS coronavirus, including the development of a vaccine. Two of the recently reported cases were conducting research at the laboratory: a 26-year-old female postgraduate student from Anhui Province, and a 31-year-old man.

As of 26 April, almost 1000 contacts of these cases are under medical investigation, including 640 in Beijing and 353 in Anhui. All the cases diagnosed and those under investigation have been linked to chains of transmission involving close personal contact with an identified case.

At the request of the Chinese Ministry of Health, WHO sent the first members of an international team to help investigate the source of the cases on 26 April.

Measles death toll drops

WHO and the United Nation's Children's Fund (UNICEF) announced a global reduction of 30% in deaths from measles between 1999 and 2002. In Africa, the region with the highest number of people affected by the disease, the reduction in measles deaths was 35%.

In 1999, some 869 000 people — mostly children — died of measles. In 2002, this figure had dropped to an estimated 610 000 people. According to WHO, the progress indicates that countries can achieve the UN goals of halving global measles deaths by the end of 2005.

Recent progress is due to the adoption by the most affected countries of the comprehensive WHO/UNICEF strategy for sustainable measles mortality reduction. At a WHO/UNICEF meeting in Cape Town, South Africa, in October 2003, Ministry of Health representatives from 45 high-burden countries agreed that this strategy was highly effective in reducing measles deaths.

The estimated annual cost for measles mortality reduction activities in the 45 high burden countries is approximately US\$ 140 million.

First polio case in southern Africa since 1997

Health authorities confirmed a new case of polio in Botswana on 14 April — the first in southern Africa since 1997 — and traced it to Nigeria. The finding jeopardizes progress in the eradication of the disease and has prompted preparations for a nationwide immunization campaign to reach 250 000 children in Botswana.

In the past 18 months, wild polioviruses genetically linked to northern Nigeria have emerged in Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Ghana, Togo and Botswana — all previously polio-free countries.

Circumcision reduces risk of **HIV** infection in men

Circumcised men may be six times less likely to contract HIV than men who are not circumcised, suggests new research carried out on more than 2000 men in India.

Published in the UK-based medical journal, the Lancet, (2004;363:1039-40), the research letter appears to confirm that the thin foreskin tissue on uncircumcised men could be highly prone to HIV infection, giving support to findings from an earlier study in Africa which had already suggested that the circumcision reduced a man's chances of

contracting HIV. The study also found that circumcision does not have an impact on other sexual diseases.

In focus

New generation of non-profit initiatives tackles world's "neglected" diseases

A new generation of non-profit drug companies and public-private partnerships is taking on the challenge of developing drugs and vaccines against diseases plaguing developing countries and traditionally ignored by the pharmaceutical industry because they lack profit potential.

Buying up the rights to develop and market drugs for "neglected" diseases from the drug companies who own them but have yet to develop them are a growing number of initiatives such as the US-based non-profit drug company One World Health and US based nonprofit organization, the Aeras Global TB Vaccine Foundation.

The Bill and Melinda Gates Foundation announced on 12 February 2004 a US\$ 82.9 million grant to the Aeras Global TB Vaccine Foundation to support the development of new vaccines to prevent tuberculosis (TB) which causes nearly two million deaths every year, the majority of which occur in developing countries. The grant, the largest ever for TB vaccine development, will allow Aeras to fund human trials of promising TB vaccines and early research on the next generation of vaccines.

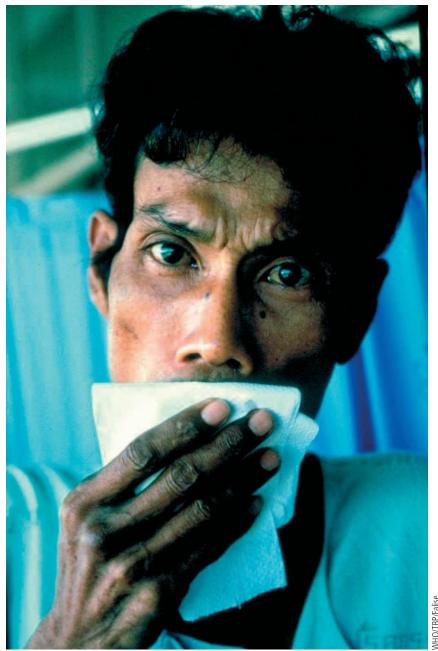
Similarly, One World Health, received US\$ 10 million from the Bill and Melinda Gates Foundation to test a promising new treatment for leishmaniasis (kala azar). It is estimated that around 350 million people in 88 countries are at risk of contracting this often-lethal disease but 90% of cases are concentrated in India, Bangladesh, Brazil, Nepal and Sudan, according to WHO. Some 1.5–2 million new cases occur annually.

The pharmaceutical industry has responded with its own initiatives. The development of drugs against malaria, a disease which kills almost a million people every year — mostly in Africa — has benefited from a recent agreement between Chongqing Holley Holding,

a Chinese pharmaceutical company, Sigma-Tau, an Italian pharmaceutical company, Medicines for Malaria Venture, a non-profit organization and the University of Oxford. On 19 March, they signed an agreement for the international development of the anti-malarial drug, Dihydroartemisinin-piperaquine (Artekin). Unlike the conventional chloroquine and sulfadoxine-pyrimethamine treatments, artemisinin, from which the drug is derived, has not yet produced any known cases of resistance.

"Not only should this antimalarial be effective," said Dr Christopher Hentschel, CEO of Medicines for Malaria Venture, "our goal is also to be able to make it available at a cost that's affordable for people living on less than a dollar a day."

The US-based firm, Johnson & Johnson, announced on 30 March 2004 that it has granted royalty-free rights to the International Partnership for Microbicides for a vaginal medication to prevent HIV infection in women originally developed by the firm's subsidiary, Tibotec Pharmaceuticals. The partnership, also based in the US, will conduct the remaining trials of the drug, known as TMC-120, in order to gain regulatory approval. If the trials are successful the product could be on the market by 2010. Research into microbicides has previously been held up by a lack of resources



A patient with tuberculosis in Thailand covers his mouth in an attempt to stop the spread of the disease. South-east Asia which shoulders the biggest burden of the disease sees 3 million new cases every year.

and the absence of interest in the pharmaceutical industry. (See related news article, Microbicides preventing HIV infection could be available by 2010, in this issue of the Bulletin (2004;82:393).

These examples are indicative of a growing trend in which non-profit entities, governments, international organizations and pharmaceutical/biotech firms are partnering to develop drugs or vaccines and make them accessible to needy countries.

"Public-private partnerships are not new — they started in the 1970s and built strength through the 1990s. But a few things have happened in the past few years. They've become consolidated and accepted, and they've scaled up considerably," said Robert Ridley, ad interim Director of the UNICEF/ UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR) in Geneva.

There are nearly one hundred such partnerships, according to the Initiative on Public-Private Partnerships for Health at the Global Forum for Health Research, a non-profit group based in Geneva whose mission is to track such arrangements and help them perform more effectively. "Each of them has a unique structure, but the majority are involved in product development," said Roy Widdus, Project Manager.

The recent initiatives offer a window on how the new breed of public-private partnership functions. One World Health, for example, is using its Gates grant for clinical trials in Bihar, India, to assess the efficacy of paromomycin for the treatment of leishmaniasis.

In the 1990s WHO received a donation of paromomycin from Farmitalia — the Italian pharmaceutical firm holding the licence. Farmitalia was not interested in developing the drug on its own because of paromomycin's lack of potential to become profitable, given the expense of conducting clinical trials and the poor economic status of people most in need of it.

"We began with Phase I and II trials on the drug, but unfortunately, we ran out of funds and had to stop,' said Philippe Desjeux, Medical Officer in charge of leishmaniasis control programmes in WHO's department of Communicable Diseases. "Then One World [Health] came to see us, looking for a project. I suggested they take over the trials and continue to Phase III,

which they did. It's a nice example of the complementarity of efforts between a non-profit organization, industry, a foundation, and an international organization."

Another public-private partnership is seeking new preventive strategies against leishmaniasis. The non-profit US-based Infectious Diseases Research Institute and biotech company Corixa are working on the project with TDR. Phase I trials on a new vaccine were recently completed in the US.

According to Dr Farrokh Modabber, manager of the TDR-Infectious Disease Research Institute Collaborative Project, a public-private collaboration was the only practical route for developing a leishmaniasis vaccine. "It's a risky, expensive and time-consuming business developing vaccines," he said. "It is unlikely at this time that any private company would undertake single-handedly a project for a vaccine against a disease affecting mostly poor countries."

Similarly, the only serious efforts to develop an effective vaccine against tuberculosis are taking place through the Aeras Global TB Vaccine Foundation.

Aeras announced in February that it would begin Phase II trials of two new vaccines against TB. The project has enlisted partnerships with scientists, academic institutions, governments, and companies in Europe, South Africa and other developing countries and the US. A clinical research site is already in operation in Cape Town, South Africa, where more than 9000 volunteers are enrolled in a clinical trial. Other sites are being considered in Peru and India. Aeras is also partnering with The Biovac Institute in Cape Town to manufacture vaccines for future Phase I and II clinical trials.

Other ambitious non-profit-generated drug development projects are in the pipeline. In July 2003, Médécins sans Frontières, the Pasteur Institute, TDR, the Oswaldo Cruz Foundation, the Indian Council for Medical Research and the Malaysian Ministry of Health together established in Geneva a not-forprofit entity, the Drugs for Neglected Diseases Initiative. The new group's objective is to develop treatments for African trypanosomiasis, Chagas disease a parasitic illness affecting nearly a quarter of Latin America's poor — and leishmaniasis.

The push toward public-private partnerships is not without critics. According to Bernard Pécoul, Executive Director, the goals of the most widely publicized partnerships are not portrayed accurately. "Many of the most ambitious current projects will benefit rich countries as well as poor ones — the tuberculosis vaccine, for example. And although a vaccine and better treatment for kala azar [leishmaniasis] will help people in developing countries, they also have strategic interest for western countries, the US in particular, because its military personnel is at risk," he said. The cutaneous version of the disease, dubbed "Baghdad Boil," has infected 150 US soldiers serving in Iraq, according to newspaper reports.

"You don't see so much energy committed to a disease like trypanosomiasis, which affects as many as half a million people," continued Pécoul, "... [because] almost all of them are very poor and live in isolated areas of sub-Saharan Africa where tourists rarely venture."

At present only 10% of money spent on drug development is devoted to conquering 90% of the world's health problems. Pécoul remains sceptical of the contribution these new initiatives can make towards addressing this gap without a change in public policy.

"We will never find a solution to the 10/90 gap until we see a radical change in public policy — and there are not strong signs this is happening. It's great to have a money injection, as we've had lately, but we need sustainable solutions," said Bernard Pécoul.

Judith Mandelbaum-Schmid, Zurich

Contributions are welcome for the Letters section, in response to articles that have appeared in the Bulletin or on matters of major public health importance. Letters are usually between 400 and 850 words, with a maximum of six references; they will be edited and may be shortened.

Manuscripts should be submitted to the Bulletin via our submissions web site accessed at http://submit.bwho.org or via a link from www.who.int/bulletin where there are "Help" and "FAQ" (frequently asked questions) buttons to assist authors.