

## Aid funding to Africa's health sector: in search of better models

Two stories published in the *Lancet* journal have cast contradictory doubt on the way donor support is spent in Africa and other emerging nations.

The first study from researchers at Belgium's Institute of Tropical Medicine asserts that aid money for healthcare could be spent more effectively if it were channelled through a single global fund. Acknowledging that a steady flow of funds is essential for health sector improvements, researcher Goik Ooms said the amount and regularity of international aid was often unpredictable, making it hard for governments to plan ahead.

Another study, by Harvard Medical School and the University of Washington, found that in some recipient countries, mainly in sub-Saharan Africa, foreign health aid was partly replacing – not supplementing – domestic health budgets. In such countries for every US\$1 given in aid, governments move between 43 cents and \$1.14 of their own health funds to other sectors, such as education or sanitation.

'Governments compensate for exceptional international generosity to the health sector by reallocating government funding to other sectors,' Ooms wrote in the *Lancet*.

He said governments also compensated for the unreliability of aid by spreading it over several years.

One way to make health aid more stable would be to disburse it via a common pool, similar to the Global Fund to Fight AIDS, Tuberculosis, and Malaria set up in 2002.

'If a young institution such as the Global Fund already stands out as delivering stable and predictable financing, it shows the potential advantage

of pooling international aid,' Ooms wrote.

In a news briefing, he said countries with high dependency on aid usually received pledges from donors for 2 to 4 years ahead.

'When we in our own countries consider reforming healthcare, we make estimates for 20, 30, 40 years ahead: how much money will we have? What will happen with the population? What will be the health needs?,' he said.

Another issue is donors' delivery on their promises. Madalo Nyambose, assistant director at the debt and aid division in Malawi's Finance Ministry, said aid money was often disbursed later than promised, forcing recipient governments to borrow from financial markets and incur interest payments.

Ooms said a new global health fund could borrow ideas from the Global Fund, which pools donors' money and allocates it in consultation with the countries in need and independent experts. Its board includes representatives of donors and recipient governments, non-governmental organisations (NGOs), businesses, and affected communities. The US researchers examined data on 113 developing countries from 1995 to 2006.

This is perhaps the start of a wider debate on what works and what does not. Many civil society or bonafide private sector organisations have found it increasingly difficult to tap into funding streams which are placed directly with specific ministries, or in the general donor basket held at most Ministry of Finance offices. Achieving transparency of purpose and delivery is more easily achieved outside of the often cumbersome public sector structures.

### On the trail

The first West African Health Organisation (WAHO) workshop on Pharmacovigilance Systems in West Africa, took place in early May. The 4-day workshop sought to strengthen and harmonise existing policies and strategies employed in member states to monitor the safety and effectiveness of medicines and other pharma products.

Concern was expressed about the vibrant fake and counterfeit drug industry in the region despite the existence of national drug lists. A call was made for a more effective sharing of information between governments whenever they pick up safety concerns against any product in their area as the likelihood is that the criminals who introduced the product to one country will also be trying to introduce it to their neighbour.

### African Presidents' health summit

The first African Presidents Health Summit will be held in Washington, D.C. in the Spring of 2011, US Doctors for Africa (USDFA) have confirmed.

'It is expected that the majority of African leaders joined by their health ministers and other cabinet members will be attending the summit. Members of the US government, heads of American-based foundations and corporations, as well as executives from various NGOs will also be joining the event,' said Ted Alemayhu, Founder & Executive Chairman of USDFA.

USDFA hopes that the historic gathering will put a spotlight on the continent's chronic healthcare crisis. 'As most of us are aware, the issue of health and access to healthcare is an ongoing concern throughout Africa, and, certainly, the leaders of the continent are on the forefront in dealing with this vastly complicated issue,' Mr Alemayhu continued. 'What is encouraging is that each leader seems deeply committed to bringing about a better and more broad access of healthcare to their citizens, and the timing for the leaders to come together on this specific topic could not be better.'

### Egyptian doctor sues Yobe government

An Egyptian medical practitioner, Dr Mohsen Abdel Hameed Mohammed El-Asran, has taken Nigeria's Yobe State government and 13 compatriots in the state before a Damaturu High Court for alleged assault on him for revealing through a petition that 10 expatriate doctors were not qualified to practice as medical doctors in the state. The medical practitioner is also challenging the Yobe government for alleged wrongful dismissal.

El-Asran said his redress in court has become inevitable because the state government has 'wrongfully terminated' his appointment for speaking the truth to save people's lives in the rural areas of Yobe State under its Rural Health Care Delivery Services.

The Commission for Health said the allegations were unfounded because there were no facts to substantiate that the said Egyptian doctors were fake or holding diploma certificates.

## NCDs a development issue in poorest countries

Non-communicable diseases such as cardiovascular and chronic respiratory illnesses, diabetes, and cancer are imposing a much greater burden on the poorest countries than on richer economies and must be tackled as a development issue, United Nations health experts warned recently.

'It's not like we have to wait for these countries to develop their economy, then start to suffer from non-communicable diseases,' UN World Health Organization (WHO) Coordinator of Health Promotion Gauden Galea told a news briefing in New York. 'We are talking about countries and populations that are already dying at much higher rates and much earlier than people do in the richer economies.'

The Director of the Population Division in the UN Department of Economic and Social Affairs (DESA), Hania Zlotnik, noted the irony that the increasing prevalence of non-communicable diseases in developing countries was the result of success in combating communicable diseases. The consequent ageing of the population means that 'people do not die early in life, they die much later in life and it is more likely that then they will die of a

non-communicable disease,' she said.

Dr Galea noted that four chronic diseases – cardiovascular, diabetes, cancer, and chronic respiratory illness – are responsible for 60% of the world's deaths, and 80% of these deaths are happening in the poorest populations of the world.

'As you look at the plot of mortality versus GDP (gross domestic product) you will see that already the poorest countries of the world suffer from higher burdens of non-communicable diseases than the richer countries of the world,' he added. 'We are making a point that non-communicable diseases are an issue of development... 'There should not be global development initiatives that continue to ignore non-communicable diseases as if they do not exist in countries of sub-Saharan Africa and populations who are poor,' he said, stressing that governments have to recognise the social determinants and behavioural issues, such as smoking, unhealthy diets, alcohol, and lack of physical activity as people urbanise.

Governments must address these risks and provide the services that people are being denied because of the neglect of non-communicable diseases, he concluded.

### Researchers hope to make mosquito 'flying vaccinator'

Japanese researchers hope one day to turn blood-sucking mosquitoes into deliverers of vaccines that could instead inoculate millions for free.

A new study shows real promise by genetically modifying mosquitoes to make them 'flying vaccinators', according to scientists at Jichi Medical University north of Tokyo.

The researchers have already genetically modified a mosquito species so that its saliva contains a protein that acts as a vaccine against leishmaniasis.

The team confirmed that mice bitten by the transgenic mosquito developed an antibody to the disease, meaning they had built up immunity, said Shigeto Yoshida, the associate professor who has led the research.

Similarly the mosquitoes could be

used to help combat malaria, perhaps a decade from now, said the malaria expert.

'You would be vaccinated without even noticing. You wouldn't need any drug and you wouldn't need to show up at a designated place for mass vaccinations,' said Yoshida. Repeat bites would only strengthen the immunity, he said.

For now a problem is that no effective vaccine exists, because malaria's antigen, which triggers immune reactions, changes frequently. However, Yoshida expects science will come up with a solution, and that the transgenic mosquito will ultimately help rid the developing world of a deadly scourge.

Nearly 1 million people die each year from malaria – most of them children – predominantly in Africa and Asia, according to WHO.



### Sierra Leone: strike brings increase in healthcare salaries

Following a 10-day strike by doctors and nurses in Sierra Leone, President Ernest Koroma has agreed to increase doctors' salaries to \$600 per month. Before the strike they were earning around \$100 per month, while nurses' salaries were at a paltry \$40. Even for West African standards, where a dollar can go a long way, Sierra Leone's health workers were being grossly underpaid.

On the eve of celebrating Sierra Leone's 49th independence anniversary last year, President Koroma promised the introduction of free medical healthcare for pregnant women and breast-feeding mothers, as well as children under 5 years. This new system was supposed to take effect in April 2010, and doctors and nurses argued that due to the inevitable, significant increase in their workload, their compensation should be adjusted accordingly.

In November 2009, buttressing the previous announcement of the introduction of free healthcare for mothers and children under 5, the government announced its first 6-year strategy (2010–2015) to address the key systemic problems in the health sector. And while health indicators have indeed improved in recent years, the country still boasts some of the world's worst maternal health statistics, with one in eight mothers at risk of dying during childbirth.

According to recent UNICEF statistics, Sierra Leone has been spending about 10% of its GDP on health – the same percentage as for defence spending. Salary adjustments represent one small - but encouraging - step towards improving the country's health infrastructure. This year, DFID, the British government aid agency - in a move which suggests trust in Sierra Leone's leadership on health matters - will be providing US\$15m to support better healthcare delivery in Sierra Leone.

## GHRI announces US\$3.5m funding to strengthen health systems in sub-Saharan Africa

The Global Health Research Initiative (GHRI) have announced US\$3.5 million in funding to support ten African-led research teams who will look for innovative ways to strengthen health systems in sub-Saharan Africa. The teams will be led jointly by an African researcher and an African decision-maker and will involve several Canadian researchers.

The funds come from a US\$5.9 million contribution to the Global Health Research Initiative provided by the Canadian International Development Agency (\$5 million through its Africa Health Systems Initiative) and the International Development Research Centre (\$0.9m through its governance, equity, and health programme). Of the \$5.9 million contribution, over 80% of the resources will go directly to the African institutions involved in finding relevant solutions to health systems programming challenges in Africa.

Drawing on a wide-range of research expertise from several disciplines, the ten winning teams will focus on key health system issues, including health

human resources, front-line health service delivery, as well as community and hospital-based health information management. Special attention will be given to the needs of underserved segments of the population, including women, children, and youth.

'Policy-makers and decision-makers need high quality, up-to-date research findings to guide their efforts to improve health systems that are vital to human health the world over,' said Carol Clemenhagen, Program Leader for the Global Health Research Initiative. 'These African-led research teams will help ensure that Canada's investments in efforts to strengthen health systems across the sub-Saharan region are effective in improving health outcomes.'

The funded teams will be based in seven sub-Saharan countries, including Burkina Faso, Kenya, Malawi, Mali, Tanzania, Uganda, and Zambia. They will focus on the health priorities of these seven nations and will work to connect research, policy and action to improve health decision-making, and programming across the region.

### New clue to fighting dengue fever

New clues into how the body fights off the tropical disease dengue fever could help in the search for a vaccine.

The research, published in *Science*, also explains why those who recover from the virus have much worse symptoms if they catch it again.

Dengue fever is a viral infection spread by a mosquito bite. It is a major cause of illness worldwide, and cases are on the rise. There is currently no licensed vaccine or drug treatment.

The researchers, based in the UK and Thailand, took blood samples from infected volunteers. They found antibodies produced in response to the virus do not do a very effective job. Rather than neutralising the virus, they actually help it infect more cells, springing into action when a person is

infected a second time by a different strain of the virus. This phenomenon accounts for why a second bout of dengue fever can be more severe and dangerous.

The authors of the *Science* paper say vaccines that steer clear of a key viral protein involved in the immune response should be the most effective.

Professor Gavin Screaton, head of the Department of Medicine at Imperial College London, led the study. He said, 'Our new research gives us some key information about what is and what is not likely to work when trying to combat the dengue virus. We hope that our findings will bring scientists one step closer to creating an effective vaccine.' Professor Screaton said one of the major challenges was developing a vaccine for a virus that has four very different strains.

### Malaria: commercially vaccine could be available in 2 years

The disease is preventable and curable, but there is currently no vaccine for malaria. However, researchers are testing a revolutionary vaccine that could make malaria as rare as polio, a disease that has nearly been eradicated. The drug tests were happening as the international community marked World Malaria Day on 25th April and pledged more funds to fight the disease. GlaxoSmithKline, the UK pharmaceutical company, the US Walter Reed Army Institute of Research, and Path Malaria Vaccine Initiative are developing a drug called RTS,S or Mosquitrix, which could be commercially available in 2 years.

If successful, GlaxoSmithKline, known more for its lifestyle drugs for affluent people, could set a trend of biotech companies finding cures for diseases that plague the developing world. The malaria vaccine has been in the works for 20 years. The Bill and Melinda Gates Foundation, which recently pledged US\$10 billion to support vaccine development, is helping to fund the research of the malaria vaccine.

The third phase of the vaccine's trial is underway in seven African countries and involves 16 000 children in malaria-affected nations. If the drug is proved effective and safe, GlaxoSmithKline will seek regulatory approval in 2012. 'A malaria vaccine could help save countless lives and redefine the future for Africa's children,' said Patricia Njuguna, one of the vaccine's lead investigators based in Kenya. 'Communities all across Africa are dedicated to this future and are participating to ensure that we develop a vaccine with an acceptable safety and efficacy profile.' The second phase of the RTS,S trial, conducted on 2000 children in Mozambique, showed that the drug reduced malaria by 53%. The current clinical trial is the largest test of a malaria vaccine in the world.

'This is a tremendous moment in the fight against malaria and the culmination of more than two decades of research, including 10 years of clinical trials in Africa,' said Joe Cohen, the co-inventor of RTS,S.



## Maternal deaths decline sharply across the globe



For the first time in decades, researchers are reporting a significant drop worldwide in the number of women dying each year from pregnancy and childbirth, to about 342 900 in 2008 from 526 300 in 1980.

The controversial findings, published in the *Lancet*, challenge the prevailing view of maternal mortality as an intractable problem that has defied every effort to solve it.

'The overall message, for the first time in a generation, is one of persistent and welcome progress,' the journal's editor, Dr. Richard Horton, wrote in a comment accompanying the article.

The study cited a number of reasons for the improvement: lower pregnancy rates in some countries; higher income, which improves nutrition and access to healthcare; more education for women; and the increasing availability of 'skilled attendants' to help women give birth. Improvements in large countries like India and China helped to drive down the overall death rates.

But some advocates for women's health tried to pressure the *Lancet* into delaying publication of the new findings, fearing that good news would detract from the urgency of their cause, Dr Horton said. 'I think this is one of those instances when science and advocacy can conflict,' he said.

Dr Horton said the advocates, whom he declined to name, wanted the new information held and released only after certain meetings about maternal and child health had already taken place.

He said the meetings included one

at the United Nations, and another to be held in Washington in June, where advocates hope to win support for more foreign aid for maternal health from Secretary of State Hillary Clinton. Other meetings of concern to the advocates are the Pacific Health Summit in June, and the United Nations General Assembly meeting in December.

'People who have spent many years committed to the issue of maternal health were understandably worried that these figures could divert attention from an issue that they care passionately about,' Dr Horton said. 'But my feeling is that they are misguided in their view that this would be damaging. My view is that actually these numbers help their cause, not hinder it.'

He said the new study was based on more and better data, and more sophisticated statistical methods than were used in a previous analysis by a different research team that estimated more deaths, 535 900 in 2005. The authors of the earlier analysis, published in the *Lancet*, in 2007, included researchers from Unicef, Harvard, the World Bank, the World Health Organization, and the Johns Hopkins School of Public Health. The World Health Organization still reports about half a million maternal deaths a year, but is expected to issue new statistics of its own this year.

The new report comes from the University of Washington and the University of Queensland in Brisbane, Australia, and was paid for by the Bill and Melinda Gates Foundation.

Dr. Christopher J. L. Murray, the director of the Institute for Health Metrics and Evaluation at the University of Washington in Seattle, and an author of the study, said, 'There has been a perception of no progress.' But, he said, 'some of the policies and programmes pursued may be having an effect, as opposed to all that effort with little to show for it.'

'It really is an important positive finding for global health,' he said.

Dr Murray said no one had approached him directly about delaying the release of his findings; he heard about those efforts from the *Lancet*, and

### Health experts gather in Ethiopia to discuss child, maternal health in Africa

A group of health experts gathered in Addis Ababa, Ethiopia in April to kick off a continental conference on maternal and child health.

Maternal and child health experts from African Union (AU) states, U.N. representatives, and regional and community leaders are among those who attended the conference.

During the meeting, attendees discussed the best practices to improve maternal and child health, the challenges countries face in attempting to curb maternal and child deaths and reviewed progress made in the implementation of the Maputo Plan of Action.

### Vitiligo 'cancer protection hope'

People with the skin disease vitiligo may have natural protection against skin cancer, a study suggests. The condition, affecting one in 200, causes pale skin patches that lack pigment and burn easily - leading to an assumed increased risk of skin cancer.

But the University of London study of 4300 people identified a common gene mutation that both increases the chance of vitiligo and cuts cancer risk.

The findings are reported in the *New England Journal of Medicine*.

However, study author Professor Dot Bennett, from St George's Hospital, University of London, still warned: 'Although this may provide some consolation for people with vitiligo, they should still be careful in the sun. As they know, they sunburn quickly, and a lower risk of cancer doesn't mean zero.'

### Sickle cell anaemia: still an issue of neglect

While sickle cell anaemia disproportionately affects people from Africa there is no comprehensive approach for testing newborn children to see if they carry the disease.

While marking the 100th anniversary of the discovery of the disease a call has gone out not to neglect 'non-priority' health issues such as sickle cell anaemia that continue to exist.