

Who will pay to end meningitis deaths?

A new, cheap meningitis vaccine has been approved by the World Health Organization and will be rolled out in the three worst-affected countries of the African meningitis belt in the autumn. But nobody yet knows where the money will come from to protect the rest. The meningitis epidemics that sweep across Africa killing children could be brought to an end with the new vaccine. It is not an expensive vaccine brought to market by one of the major pharmaceutical giants, but one specifically devised for Africa, with an African price of US40cents a shot.

Daniel Berman, deputy director of Médecin Sans Frontières's Access for Essential Medicines, called it 'pretty close to a revolution in terms of controlling meningitis... With this new vaccine, we will be able to plan ahead to prevent outbreaks.' However, even at this price, it will take substantial sums of money to protect the 430 million people at risk in the sub-Saharan meningitis belt, from Senegal to Ethiopia. Last year there were about 80 000 cases and around 4000 deaths.

The Global Alliance for Vaccines and Immunisation (GAVI) and WHO are going to support the roll-out of the vaccine to the three countries at greatest risk – Mali, Burkina Faso, and Niger – in the autumn. But WHO estimates it will cost another US\$475 million to roll

it out in the 22 countries with the next highest need.

The programme was launched with US\$1.5 billion from donor governments and the Bill and Melinda Gates Foundation.

Those involved in its development have been WHO, the non-profit organisation PATH, and Serum Institute of India, which will manufacture it. Dr Tido Von Schoen-Angerer, director of the MSF Campaign for Access to Essential Medicines, says this is a complete revolution compared with the usual patent-based, profit-driven model. Its developers have succeeded in tailoring the product to suit developing country medical needs, and keeping the vaccine affordable.

- Meanwhile, GSK has announced that it will create a new operating unit in London dedicated to the 49 least-developed countries, of which 33 are in Africa. In practical terms, this is likely to involve getting representation where GSK does not have a presence, ensuring that the price cuts it promised take place and that a proportion of profits is reinvested in local healthcare.

The office will also push ahead with deals with generic companies such as Aspen in South Africa and Dr Reddy's in India to produce 'branded generics' – cheaper versions of GSK's patented medicines.

Mining plays bigger role in TB in Africa than previously realised

Dust-choked mine shafts, crowded working conditions and stifling hostels where up to 16 miners share a room – all conspire to make mining a more important contributor to tuberculosis (TB) in Africa than had been realised, a new study finds.

Rates of the illness have doubled in Africa over the past two decades, and have tripled in South Africa, which even in 1996 had the highest TB rates in the world. Until now it has been assumed that the increases were driven by Africa's high rates of infection with the AIDS virus, which weakens the immune system, helping latent TB

become active. But researchers from Brown and Oxford Universities, the London School of Hygiene and Tropical Medicine, and the University of California, San Francisco, compared 44 African countries and found that even some with low rates of HIV infection rates had high TB rates. When a country's mines shut down, TB rates often fell.

The study appeared in *The American Journal of Public Health*. The paper notes that many miners are migrant labourers who may go home only once or twice a year. Not only can they infect their families, the authors found, but they stop seeing the mine clinic doctors who are familiar with TB and so may interrupt taking their antibiotics, increasing the chances that they will develop a drug-resistant strain.

New initiative to improve African blood practices



A leading global medical company has launched an initiative to improve blood collection practices in African clinics and hospitals.

Becton, Dickinson (BD) and the US President's Emergency Plan for AIDS Relief (PEPFAR) launched the initiative in Nairobi recently to protect both health workers and patients impacted by HIV/AIDS pandemic. Through the scheme, Kenyan health workers will be trained in safe blood processes and later lead training in regions throughout the country.

As part of the initiative, BD is also funding construction of incinerators at two Kenyan sites to improve medical waste management. Speaking at the launch, Gary Cohen, Executive Vice President at BD said the two projects would eliminate HIV transmission in healthcare settings by 2013.

Safer blood collection has become increasingly important in sub-Saharan Africa and other developing countries with a high HIV/AIDS prevalence. There have also been concerns that large numbers of new HIV infections develop during blood transfusions. This calls for strengthening laboratory surveillance and epidemiology capacities of public health institutions.

Dr Willis Akhwale, Director of the Department of Disease Prevention and Control in Kenya's Ministry of Health said the safe blood initiative would help train clinic and laboratory personnel, which in turn would improve and advance healthcare delivery at local and national levels. He thanked PEPFAR for training health professionals in sub-Saharan Africa, especially in the management of drug-resistant strains of TB.

Launched in 2003, PEPFAR is a US government initiative supporting partner nations responding to HIV/AIDS.

Economic crisis 'must not disrupt vaccine programme'

The global economic crisis must not be allowed to interfere with the delivery of new vaccines to the developing world, a global health body has warned.

The Global Alliance for Vaccines and Immunisations (GAVI) says it needs more than US\$4 billion by 2015. This would enable it to continue existing programmes and roll out new vaccines against diarrhoea and pneumonia.

But there are fears donors may want to cut back in the current climate. Many developing countries now have, with foreign assistance, built up the infrastructure so that routine immunisations can now be offered to up to 80% of the world's poorest children.

GAVI, a public-private partnership that draws together organisations including the World Health Organization and the Bill and Melinda Gates Foundation, as well as the vaccine industry, is now trying to secure funding for 15 countries to add further vaccines

to those existing programmes. These include immunisations against pneumococcal disease – the most common form of bacterial pneumonia – and rotavirus – the most common cause of diarrhoea.

'Children have a right to health and we have it in our power to set them on a path to healthy and productive lives. There comes a time to stop talking and start doing. I sincerely hope that we will see donors put their money on the table,' said the chair of the GAVI board, Mary Robinson. 'Without this funding for immunisation, the world will not reach Millennium Goal 4 to reduce under-5 mortality by two-thirds by 2015,' she said.

GAVI estimates that securing the funding could immunise 240 million children by 2015, and 4 million deaths could be prevented – including 1 million from pneumococcal disease and rotavirus.

Funding gap leads to major measles outbreak

Gaps in the implementation of measles control strategies as a result of inadequate financial commitments from governments and partners have led to a dramatic increase in cases of measles in Eastern and Southern Africa.

This shortage in donor support could reverse recent gains that had been made in reducing mortality from this highly contagious disease. As of mid-June 2010, this latest resurgence has affected more than 47 907 children in 14 countries, resulting in 731 deaths. The most recent confirmed outbreaks are in Malawi, Mozambique, and Zambia.

Measles can cause severe complications, including pneumonia, diarrhoea, encephalitis, and can lead to death. Yet a programme of supplemental immunisation activities has been found to stem the deadly tide.

To ensure protection from measles outbreaks, at least 90% of all children in each district and at national level need to be vaccinated through routine immunisation. Two doses of the vaccine are recommended to ensure immunity, since about 15% of children vaccinated

at 9 months, fail to develop immunity from the first dose. The African Region of the World Health Organization had attained 92% reduction in measles mortality between 2000 and 2008 through the implementation of these strategies, with the support from the Measles Initiative.

'Measles are easily preventable,' said UNICEF Regional Director for Eastern and Southern Africa, Elhadj As Sy. 'In order to sustain our efforts and successes in combating the disease, we urgently need to fill the funding gaps. Otherwise, we will again see more measles deaths in the near future.'

'To eliminate the risk of resurgence,' WHO Regional Director for Africa Dr Luis Gomes Sambo said, 'countries must continue follow-up vaccination campaigns every 2 to 4 years until their healthcare systems can routinely provide two doses of measles vaccination to all children and provide treatment for the disease.'

In the aftermath of that lost opportunity, affected countries are doing what they can to cope with the outbreaks. But none of it replaces the value of prevention.

Implementing interventions in maternal and child health in Africa requires investment

In the fourth of five papers in the *PLoS Medicine* series on maternal, neonatal, and child health in sub-Saharan Africa, Valerie Snewin from the Wellcome Trust and colleagues discuss the challenges of implementation and research capacity in Africa. While technical knowledge about what could be done to address death and disability associated with maternal, newborn, and child health is available, actual implementation is neither straightforward nor easy in the often difficult circumstances on the ground, say the authors. The many competing priorities – along with limited logistic capacity, a lack of political will, and inadequate infrastructure – constrain the extent to which effective health packages are delivered to those who need them most.

In order to address these challenges, the authors argue that 'strong health research systems and research programmes that address bottlenecks to upscaling effective interventions should be developed without delay. This effort requires substantial and rapid investment in the support of African scientists, institutions, and systems that will focus on solutions to African problems.'

The paper is freely available on: <http://www.plosmedicine.org/article/info%3Adoi%2F10.1371%2Fjournal.pmed.1000299>.

The Global Fund cancels Zambia grants

In June, The Global Fund suspended disbursements to the principal recipient (PR), the Ministry of Health of Zambia, for several grants. The Fund's Office of the Inspector General concluded that there was fraud in connection with one or more of the grants. Disbursements are being allowed for life-saving interventions, but these are being made directly to procurement agents or suppliers.

Later in the month the Fund discontinued funding for Years 4 and 5 of Zambia's Round 4 HIV/AIDS grant because the PR – the Ministry of Finance and National Planning – failed to meet the conditions imposed when Phase 2 of the grant was approved in 2008.

Over-diagnosis of malaria: still 'the diagnosis of convenience'

More than half the paediatric fevers treated in public health clinics in Africa are caused by diseases other than malaria, according to a study by Oxford University and other research groups, whose authors caution against the 'continued indiscriminate use of anti-malarials for all fevers across Africa.'

Of the 183 million children with malaria symptoms treated by public health clinics in 2007, only 43% were diagnosed with malaria, but many more most likely received anti-malarial medication. 'Malaria is still routinely made as the diagnosis of convenience in response to paediatric fever,' said the study's lead researcher, Peter Gething. 'This in part stems from official guidelines that have only recently been updated, and in part because often the only treatments available in front-line clinics are anti-malarials.' In 2006, the World Health Organization (WHO) recommended that health workers in countries with a high number of suspected cases of malaria treat children with fevers – the main clinical symptom of malaria – for the disease, even without a diagnosis.

Since then, rapid diagnostic testing for malaria has become available, making it possible to confirm diagnoses without health workers, a microscope, or a laboratory. In 2008, 11.5 million of these tests were distributed in Africa; in 2009, the Global Fund to Fight AIDS, Tuberculosis and Malaria financed 74 million tests, and another 105 million in 2010, according to the Roll Back Malaria (RBM) Partnership. People in communities have been trained to test one another for malaria. In Senegal, people of all ages are treated for

malaria in government-funded health centres only once there is a positive result from a laboratory or rapid test.

In sub-Saharan Africa, 31 countries have a policy of 'universal diagnostic testing', while another 15 countries in the region have set a goal of testing before treatment in children aged 5 and older, judging it too risky to delay treatment in younger patients. Yet it can be equally risky to treat someone for malaria based only on the assumption that they have the disease, said the director of WHO's global malaria programme, Robert Newman. 'You might be wasting ACT [anti-malarial artemisinin-based Combination Therapy], while increasing the risk for drug resistance; also, you are not treating the underlying febrile disease and the drug delay can be fatal. If you treat bacterial pneumonia with anti-malarials, you still have a problem.'

Gething said that besides quality control, 'Simply supplying RDT [rapid diagnostic testing] universally is likely to be less effective if it is not accompanied by sufficient training for front-line health workers.'

The Foundation for Innovative New Diagnostics, which works with WHO to create quality control standards for rapid tests, recommends spot checking in each batch of tests.

Malaria treatment would not change overnight, said Gething. 'In an ideal world, all fevers reaching clinics in Africa would be tested for malaria, using a reliable diagnostic test ... As always, the reality on the ground is more complex. For years the advice has been to treat all fevers as malaria, and changing that dogma is likely to take time.'

Namibia lifts travel ban for people living with HIV

UNAIDS has put out a statement saying that it applauds the decision by the Government of Namibia to lift its travel restrictions for people living with HIV and align the country's legislation with international public health standards. The reforms – which took effect on 1 July – also remove entry restrictions

against people living with other contagious diseases.

'I am heartened by this announcement in Namibia,' said Michel Sidibé, UNAIDS Executive Director. 'HIV-related travel restrictions serve no purpose and hamper the global AIDS response.'

UNAIDS still counts 51 countries, territories, and areas imposing restrictions on people living with HIV.

New Strategic Plan to eradicate wild poliovirus

Across Africa, 10 of the 15 previously polio-free countries re-infected in 2009 have successfully stopped their outbreaks. Key endemic countries are witnessing historic gains against the disease. In particular Nigeria, where case numbers have plummeted by more than 99% – from 312 cases at this time last year, to 3 in 2010.

In Geneva last month, a broad range of stakeholders formally launched the new Strategic Plan 2010–2012 for eradicating wild poliovirus, to build on the gains already made in 2010 and to galvanise new action on polio eradication. Earlier, the World Health Assembly welcomed the new plan while expressing deep concern about the US\$1.3 billion funding shortfall (out of a budget of US\$2.6 billion) over the next 3 years.

Co-hosted by WHO Director-General Margaret Chan and the new UNICEF Executive Director Tony Lake, the meeting discussed the implementation, monitoring, economics, and financing of the new plan.

Nigeria lead poisoning crisis 'unprecedented'

Doctors are struggling to save children stricken by lead poisoning – many of them blind, deaf, and unable to walk – after poor herdsmen began illegally mining gold in an area of northern Nigeria with high concentrations of lead. More than 160 villagers have died and hundreds more have been sickened in the remote villages of Nigeria's Zamfara state.

A spokeswoman for the US Centers for Disease Control and Prevention said the agency's initial tests found extremely high levels of lead in the blood of adults and children, who are the most susceptible to the illness. 'The scope of the poisoning is unprecedented in CDC's work with lead poisoning worldwide,' said agency spokeswoman Vivi Abrams. 'This is because of the severity of the poisoning, the number of fatalities, the large number of children and adults with symptomatic poisoning and the extent of the environmental contamination.'

Nigerian officials asked international agencies to help treat illnesses initially blamed on malaria by local authorities.

Vitamins do not reduce pre-eclampsia risk in women with diabetes



Taking vitamins C and E does not lower the risk of pre-eclampsia in women with type 1 diabetes, a study published in the *Lancet* and presented at the American Diabetes Association meeting in Florida, USA has found. However, these vitamins may help prevent the condition in those women low in antioxidants.

Pre-eclampsia can threaten the lives of mother and baby, but its causes are not known. After a small trial in 1999 suggested that vitamins C and E, which are antioxidants, might prevent the condition, researchers have been investigating their role. Several subsequent larger trials found no benefit of vitamin C and E supplementation during pregnancy.

In this new research, the Diabetes and Pre-Eclampsia Intervention Trial (DAPIT) study group looked at women with type 1 diabetes, a condition that puts them at risk of pre-eclampsia and preterm delivery. Type 1 diabetes is associated with a reduction in antioxidants, so the team looked to see whether vitamins C and E could improve outcomes in women with diabetes.

The researchers examined the benefits of 1000 mg of vitamin C and 400 IU of vitamin E in 762 pregnant women with type 1 diabetes, recruited from 25 UK antenatal clinics. Women were randomly assigned to receive vitamins or placebo every day from between 8 and 22 weeks until delivery.

The rate of pre-eclampsia was similar in both groups (15% of women receiving vitamins vs 19% of controls). However, in women with low levels of antioxidants at the start of the study, taking vitamins was associated with a significantly lower risk of pre-eclampsia.

The authors suggest that the vitamins might be being given too late in pregnancy to affect the pathway by which pre-eclampsia occurs. They also say that individual vitamin supplements may not carry the benefits of, for example, a diet high in antioxidant fruit and vegetables. They conclude, 'In principle, the notion that oxidative stress is implicated in pathogenesis of pre-eclampsia remains plausible, but the benefit of vitamin supplementation might be limited to women with vitamin depletion; however, this idea needs confirmation.'

Contrary to previous research, this study showed no evidence that vitamin C and E supplements cause harm to mothers or babies. Antioxidant vitamins tended to reduce the risk of having a low-birthweight baby (6% for the vitamin group vs 10% for controls). Additionally, fewer babies were born early to women taking vitamin C.

UNAIDS welcomes labour standard on HIV

A landmark labour standard has been adopted by governments, employers and workers at the annual conference of the International Labour Organization (ILO). The standard aims to strengthen the global response to HIV in the workplace. Building on the ILO 2001 Code of Practice on HIV/

AIDS, the new international labour standard will reinforce and extend anti-discrimination policies in the world of work. It reaffirms the right to continued employment regardless of HIV status and asserts that workers should not be screened for HIV for employment purposes. The standard also recognises the need for focused action to protect the rights of populations that may be more vulnerable to HIV infection.

Help to get sub-Saharan journals online

The international news agency Thomson Reuters has donated two *ScholarOne Manuscripts* sites to the newest members of the African Journal Partnership Project – the *Medical Journal of Zambia* and the *Ethiopian Journal of Health Services*.

Since 2005, Thomson Reuters has worked with the Council of Science Editors to assist editors of sub-Saharan medical journals increase the visibility and quality of their journals.

ScholarOne Manuscripts is an innovative, web-based peer review and submission application for scholarly publishers which automates the manuscript submission process.

'The donation of *ScholarOne Manuscripts* to these journals will further their ability to reach the primary goals of the African Journal Partnership Project – to help improve the editorial quality of these African journals and thereby help raise the visibility of African science,' said Dr Christine Laine, President of the Council of Science Editors, and Editor of *Annals of Internal Medicine*, one of the northern partner journals. The other partner journals include the *BMJ*, *Environmental Health Perspectives*, the *Lancet*, *JAMA*, and *New England Journal of Medicine*.

The African Journal Partnership Project is funded by the National Library of Medicine and the Fogarty International Center of the US National Institutes for Health and administered by the Council of Science Editors.

World Bank health efforts failing in Africa: study

Billions of dollars for health programmes in sub-Saharan Africa by the World Bank and other development agencies over the past decade have been largely ineffective, a study released recently showed.

The survey, funded by the Bill & Melinda Gates Foundation, said the international lender and its partners' approach 'is not achieving intended outcomes,' especially against diseases such as tuberculosis. It criticised the so-called sector-wide approaches in which donors support a government for broad-based improvements in the country's healthcare system instead of more targeted aid.