

## Kenya marks the global roll out of pneumococcal vaccine



The pneumococcal vaccine launch ceremony in Nairobi Kenya. A celebratory cold box carrying vaccine vials (left) and a nurse giving one of the first shots to an infant (right).



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Hundreds of infants in Kenya received their first shots against pneumococcal disease on the 14th February at a special event to celebrate the global roll out of vaccines targeting the world's biggest child killer – pneumonia.

Kenya's President Mwai Kibaki joined parents, health workers, ambassadors, and donors in Nairobi to witness children being immunised as part of the Government of Kenya's formal introduction of pneumococcal vaccine in its routine immunisation programme for all children.

Kenya is the first African country to roll out this pneumococcal conjugate vaccine which has been specially tailored to meet the needs of children in developing countries. It is supported by GAVI (The Global Alliance for Vaccines and Immunisation) and brings together governments, UNICEF, WHO, and other key players in global health.

GAVI has committed to support the introduction of pneumococcal vaccines in 19 developing countries within a year and, if it gets sufficient funding from its donors, plans to roll them out to more than 40 countries by 2015.

'The roll-out of the pneumococcal vaccine has become a reality across the world allowing developing country governments to reduce deaths and enable millions of children to grow up healthy,' said Helen Evans, interim CEO of the GAVI Alliance. 'Routine vaccination is one of the most cost-effective public health investments a government can make and we are counting on our donors to continue their strong backing for our life-saving mission.'

GAVI needs an additional US\$3.7 billion over the next 5 years to continue its support for immunisation

in the world's poorest countries and introduce new and underused vaccines including the pneumococcal vaccine and the rotavirus vaccine which tackles diarrhoea – the second biggest killer of children under 5.

'The rapid roll-out of new-generation pneumococcal vaccines shows how innovation and technology can be harnessed, at affordable prices, to save lives in the developing world. The payback, as measured by reduced childhood mortality, will be enormous,' said Dr Margaret Chan, Director-General of the World Health Organization.

The roll out of these pneumococcal vaccines in the developing world has been made possible through an innovative finance mechanism pioneered by GAVI called the Advance Market Commitment (AMC).

With US\$ 1.5 billion from Italy, the UK, Canada, the Russian Federation, Norway, and the Bill & Melinda Gates Foundation, and a commitment of US\$ 1.3 billion from GAVI, the AMC allowed the acceleration of production capacity from the two manufacturers contracted so far. This is securing the supply of pneumococcal vaccines within a year following the introduction of those vaccines in Europe and in the USA, and at a fraction of the price charged in rich countries.

'The Advance Market Commitment accelerated the introduction of the pneumococcal vaccine in the poorest countries of the world,' said Dr Tachi Yamada, President of the Global Health Program at the Gates Foundation. 'This innovative finance mechanism is proof that public-private relationships are working to deliver life-saving vaccines to children as quickly as possible.'

### Passive smoking 'raises breast cancer risk'

Exposure to second-hand tobacco smoke as a child or adult appears to increase a woman's risk of breast cancer, experts say. Their study of nearly 80 000 women found breast cancer risk was a third higher among those who had clocked up decades of passive smoking. The researchers say their 'suggestive' findings in the *BMJ* need confirming with more studies. Meanwhile, health experts emphasised the importance of smoking cessation.

The relationship between passive smoking and breast cancer is a contentious issue. While some studies have found a link, others have not. And none appear to agree on how much exposure is too much or at what age it could be most damaging. The latest study by US researchers from West Virginia University, does not provide a definitive answer but does suggest that extensive exposure to second-hand smoke poses a risk. Among the 79 990 women aged between 50 and 79 years who were studied, the researchers identified 3250 cases of invasive breast cancer during 10 years of follow-up.

### Exercise cuts risk of developing bowel cancer polyps

People who lead an active lifestyle are up to a third less likely to develop polyps which can develop into bowel cancer, according to a study. The report pulls together 20 previous studies looking at the link between exercise and the development of large polyps.

The work was done by scientists from the Washington University School of Medicine in St Louis in the US. Publishing their findings in the *British Journal of Cancer*, they say they have produced the most accurate figures yet that show low exercise levels are linked to bowel polyps. They found that people who take regular exercise were 16% less likely to develop bowel polyps and 35% less likely to develop large or advanced polyps. Polyps – also known as adenomas – are growths in the bowel and while they are not cancerous in themselves they can develop into cancer over a long period of time.

The evidence now shows a clear link between exercise and a reduced risk of bowel cancer but it is not yet clear exactly why that link exists.

## Invest in youth, says UNFPA's new Executive Director



With the world's population set to top the milestone 7 billion mark by late 2011, the new head of the United Nations agency that helps countries use population data for policies to reduce poverty pledged today to focus on the largest global youth generation ever.

'Investing in youth, their reproductive health and gender equality can help put countries on a path to accelerated economic growth and equitable development,' UN Population Fund (UNFPA) Executive Director Babatunde Osotimehin said in his first address to the UN Development Programme (UNDP)/UNFPA Executive Board.

'UNFPA will place a special emphasis on today's large generation of young people... Every person should enjoy human rights and human dignity, and have the opportunity to make the most of his or her potential,' he said, citing rapid urban growth in Africa and Asia, declining fertility with variance across regions – with Africa home to the highest birth rates – un-

precedented ageing, and the world's largest youth population.

There are an estimated 1.8 billion adolescents and youth in the world today, accounting for nearly a third of the world's population, with just below 90% living in developing countries, a proportion that will increase during the next 20 years. 'They need increased support, and they want freedom, participation and dignity,' he said.

Advancing the right to sexual and reproductive health remains at the heart of UNFPA, Dr Osotimehin declared. 'To garner greater progress, we will advocate for investments by countries and donors for a comprehensive package of integrated sexual and reproductive health services, as well as comprehensive sexuality education.'

He reaffirmed UNFPA's core principles that 'every person has the right to sexual and reproductive health, every pregnancy is wanted, every birth is safe, every young person has the education and services to grow up healthy, every girl is treated with dignity and respect, and violence against women should and can end.'

A former Nigerian health minister with wide experience in fighting HIV/AIDS, Dr Osotimehin, who has also served as African spokesperson for the Partnership for Maternal, Newborn and Child Health, became UNFPA's fourth Executive Director on 1 January, succeeding Thoraya Ahmed Obaid.

## Removing taxes and tariffs can reduce malaria deaths

Many lives can be saved by removing taxes and tariffs from essential commodities used to fight the disease, say advocates. Health ministers and representatives from the African Union, attending a meeting sponsored by the World Health Organization (WHO), have pledged to make these products more affordable by pushing for the elimination of trade barriers in all malaria-endemic countries.

A decade ago, 40 African heads of state agreed to roll back import barriers on medicines and other commodities used to prevent and treat malaria. Ten

years later, only a handful of nations have lived up to their commitment to reduce or waive taxes and tariffs on these essential products. So far, only five African nations – Guinea, Kenya, Mauritius, Tanzania, and Uganda – have removed all tariffs on commodities including insecticide-treated nets (ITNs), rapid diagnostic tests (RDTs), and artemisinin-based combination therapies.

Advocates attending the WHO meeting say a major obstacle in getting nations to eliminate taxes and tariffs on commodities is their fear of losing revenue. They say it is critical to convince them that these revenues are offset by health costs and lost productivity caused by preventable malaria illnesses.

## Indian meningitis vaccine to save 250 million lives in Africa

A new vaccine made in India against meningitis is to be administered to nearly 250 million children and adults in sub-Saharan Africa, thanks to a joint campaign by the World Health Organization (WHO) and the NGO, PATH. MenAfriVac has been produced by the Serum Institute of India and is to be administered to those in the age group 1 to 29 years in 25 sub-Saharan African countries.

'The conjugate vaccine will quickly reduce the transmission of meningococcal bacteria and create a drastic drop in illness and death rates from meningitis,' a statement by PATH said.

'In 1996 and 1997, as the largest meningitis epidemic in African history swept across sub-Saharan Africa, 25,000 people died,' said PATH.

Already about 20 million people in Burkina Faso, Mali, and Niger in West Africa which PATH said 'are the most affected in the meningitis belt' are to benefit from the campaign that 'will hopefully spread to the other countries in the region over the next few years'.

PATH said it is cooperating with WHO 'to build evidence for MenAfriVac's safe use among infants.'

'The Meningitis Vaccine Project team expects to receive WHO pre-qualification – which brings international regulatory approval – of the meningitis A conjugate vaccine for infants in 2013, clearing the way for vaccine use among the youngest people susceptible to the disease.'

The statement said, 'MenAfriVac was developed at a major cost saving – less than one-tenth the cost of the US\$500 million typically needed to bring a new vaccine to the market.'

'In addition, the reduction in meningitis cases is expected to free up significant funds in countries that can be used to address other public health problems.'

The development of the vaccine has received assistance from various other organisations, including the US Agency for International Development which, PATH said, 'gave significant funding to analyse the economic costs of meningitis epidemics in sub-Saharan Africa, improve meningitis surveillance and address regulatory issues around the vaccine's approval.'

## TB vaccine protects before and after exposure

A new vaccine that can fight tuberculosis (TB) before and after infection has been developed by Danish scientists. It could offer protection for many years more than is now possible.

The latest vaccine, so far tested in animals, is featured in the journal *Nature Medicine*.

In a small number of cases – fewer than 5% – TB symptoms develop immediately after infection. In more than 90% of cases, once *Mycobacterium tuberculosis*, the bacterium which causes the disease, has invaded the body it changes its chemical signature, and lives in a dormant – or ‘latent’ – state. Usually the bacterium never emerges from this latent state, but in around 10% of cases it reactivates – often years or even decades later – to trigger severe symptoms.

Current vaccines, such as the BCG vaccine, work only if given before exposure to the bacterium. They do not prevent infection, but do prevent acute symptoms and disease from emerging. But once the bacterium has changed into its latent form it is effectively immune to the vaccine, and can bide its time, reactivating after the vaccine has ceased to have a preventative effect.

If successful in human trials, the new vaccine would be able to tackle that problem. Developed by a team at the Statens Serum Institute in Copenhagen, it combines proteins that trigger an immune response to both the active and latent forms of *M tuberculosis*.

Researcher Professor Peter Lawaetz Andersen said, ‘It might be possible to give a booster jab post-exposure to older children or even young adults

which would protect them well into adulthood.’

Although TB can be treated with antibiotics, those drugs are often not easily accessible in the developing world, where the new vaccine could have the greatest benefit.

Professor Andersen said, ‘In these areas you cannot go in and treat more than half the local population. For instance, in Capetown 60% of people are thought to be infected.’

Professor Peter Davies, secretary of the group TB Alert, said, ‘A vaccine which can both protect against initial infection and protect from a breakdown of infection into disease is a major breakthrough. One of the main disadvantages of BCG was that it could only prevent infection going on to disease in the initially uninfected individual. It was therefore of no use in protecting infected adults who would become an infectious source of disease. Protecting children, though of value, does not protect against transmission, as children with active disease do not usually transmit disease. So far so good but we must remember that mice are not men (or women).’

Professor Francis Drobniewski, Director of the Health Protection Agency's National Mycobacterium Reference Laboratory said, ‘This is an exciting and thoughtful piece of research. The existing BCG vaccine is cheap, safe, widely used but of limited efficacy. With over 9 million new TB cases globally each year and increasing levels of drug resistance new diagnostics, drugs, and especially effective vaccines are desperately needed.’

## Clay eating putting pregnant women at risk

Pregnant women eating baked clay are at risk of exposing themselves and their unborn child to toxic chemicals, according to new research by De Montfort University, Leicester in the UK.

The practice of eating clay, known as geophagy, is an ancient tradition that is still widespread in many parts of the world, particularly Africa.

The baked clay, known as sikor,

is thought to be used by pregnant women, who may have certain mineral deficiencies. Tests revealed that the sikor contained high levels of toxic elements, such as arsenic, cadmium, and lead, which can cause cancer, kidney damage, and brain damage. Exposure to lead can also result in premature delivery, stillbirth, and miscarriage. A modest consumption of 50g sikor per day can result in exposure of three to six times the tolerable daily intake for arsenic and lead.

## New water treatment centre in Ghana

The Coca Cola Africa Foundation, a subsidiary of the Coca Cola Company in collaboration with Water Health International have commissioned a US\$65 000 ultra-modern water treatment and distribution centre for the people of Pakro, in the eastern region of Ghana. The treatment facility has the capacity to produce 65 000 litres of safe drinking water from the Densu River to serve the over 3000 inhabitants of the Pakro community and the surrounding areas. The Foundation has plans to construct five water treatment centres in the Greater Accra and Volta regions by the end of 2015.

## Cannabis use ‘raises psychosis risk’

Using cannabis as a teenager or young adult increases the risk of psychosis, a report suggests. The study published in the *BMJ* involved tracking 1900 people over a period of 10 years.

Although the link between cannabis and psychosis is well established, it had been unclear whether cannabis triggered the disorder. This research strongly suggests that cannabis use comes first, rather than people taking it for their symptoms.

The study included researchers from the Netherlands, Germany, Switzerland, and the UK. They excluded anyone who reported cannabis use or pre-existing psychotic symptoms at the start of the study, which took place in Germany. The participants in the study, aged between 14 and 24 years, were assessed for cannabis use and psychotic symptoms at three points over a 10-year period.

It found that cannabis use ‘significantly’ increased the risk of psychotic symptoms, even when other factors such as socio-economic status, use of different drugs and other psychiatric conditions were taken into account.

Sir Robin Murray, from the UK's Institute of Psychiatry, said the study showed that use of traditional cannabis is a contributory cause of psychoses like schizophrenia. He said it was one of 10 prospective studies all pointing in this same direction. However, it did not answer the question of whether skunk and other potent types of cannabis carried a higher risk of psychosis than traditional resin and marijuana.