

## Experts discuss efficient health emergency system

Experts in public health across the African continent have called for the strengthening of a healthcare emergency system in order to prevent epidemic in the continent.

This was part of the resolutions reached at the end of a two-day seminar on emergency health systems in Africa.

According to the President of the Association for Good Clinical Practice in Nigeria (AGCPN) and Professor of Radiation Medicine at the University of Nigeria, Enugu Campus, Prof. Ifeoma Okoye, the need for an effective and efficient health emergency system is sacrosanct to the overall healthcare service delivery.

Okoye added that 'there is the need for capacity development; both human and infrastructural, with Clinical trials as a fulcrum towards addressing future public health emergencies in sub-Saharan Africa.'

## New healthcare skills and training institute opens to train health professionals

General Electric (GE) have set up a brand new US\$13 million GE Healthcare Skills and Training Institute, an education facility for healthcare professionals in Kenya.

Through the new facility, GE has committed to training over 10000 healthcare professionals from across Kenya and East Africa by 2020.

At the inauguration event, Dr. Cleopa Mailu, Cabinet Secretary, Ministry of Health said: 'Demand for quality healthcare is increasing. The GE Training Centre will play a critical role in supporting the capacity development of biomedical engineers, radiologists and technicians, helping to reduce the skills gap, improve job prospects and build a solid national healthcare system.'

The GE Healthcare Skills and Training Institute will initially offer clinical applications and technical training courses for healthcare professionals in Kenya and East Africa; over the longer-term, it will be expanded to offer leadership, biomedical and clinical education courses, working with the Ministry of Health, private healthcare providers and other educational partners.

# Scientists hail Zika virus vaccine success

Researchers studying Zika have tested two trial vaccines, a DNA vaccine and an inactivated virus vaccine, in mice to try and combat the virus.

The results of the study were published in the journal *Nature* (<http://nature.com/articles/doi:10.1038/nature18952>).

'To the best of our knowledge, this is the first report of Zika virus vaccine protection in an animal model,' Dr. Dan Barouch from the Beth Israel Deaconess Medical Centre and Harvard Medical School said.

'We need to be cautious about extrapolating the results from mice to humans,' he said.

'But based on the robustness of the protection, the demonstration that antibodies protect and the similarity with other related viruses... these findings certainly raise optimism that the development of a safe and effective vaccine against Zika

virus against humans may be successful.'

Dr. Barouch said human clinical trials of the vaccine should start as soon as possible.

The vaccinated animals showed no evidence of active virus after being infected with the Zika virus and both vaccines were safe as well as effective.

The World Health Organization (WHO) has declared Zika virus a public health emergency, with the development of a safe and effective vaccine deemed a global health priority.

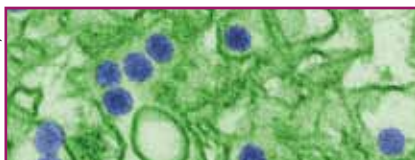
Zika virus is transmitted primarily by mosquitoes and people with the virus can have symptoms including mild fever, skin rash, conjunctivitis, muscle and joint pain, malaise or headache. Symptoms normally last for two to seven days.

According to the WHO, there is also now scientific consensus that Zika virus is a cause of microcephaly (children being born with unusually small heads) and Guillain-Barré syndrome.

Links to other neurological complications are also being investigated.

'Protection was achieved by a single shot of the vaccination.'

Photo credit: Cynthia Goldsmith via CDC



## Centre for West Africa disease control sets up in Nigeria

A council of African Heads of State established the Economic Community of West African States (ECOWAS) Regional Centre for Disease Control to tighten surveillance across the entire region and improve control of disease outbreaks in the wake of Ebola, which burdened health systems in Liberia, Sierra Leone and Guinea.

Health Minister Isaac Adewole said, 'The outbreak exposed the weaknesses of our health systems and indicated a lack of readiness to respond effectively to Ebola or any other serious health security threat in line with the care capacities outlined by the International Health Regulations.'

The centre is sited in Nigeria and will use the platform of the 16-year-old Nigeria Centre for Disease Control (NCDC) for its take-off.

But it will harness disease surveillance and control across the region, including

countries as Ghana, Senegal, Guinea-Bissau, Guinea, Gambia, and Côte d'Ivoire.

'Forty per cent (40%) of global disease burden is on the neck of Africa, so it is important to strengthen National and regional capacities otherwise we will keep having health emergencies,' said Dr Abdulsalam Nasidi, acting Director General of NCDC and named Director of ECOWAS Regional Centre for Disease Control (RCDC).

The centre comes after reported outbreaks concerning Lassa fever, Yellow fever and Zika virus.

The West African Health Organisation Director-General Dr Crespian Xavier said, 'The stakes are high, but we have no doubt that we have what it takes. This meeting is clear message that we are up to the task.'

RCDC will also function as a West Africa focus for the wider Africa Centre for Disease Control.

# Africa hurtles into obesity crisis

With more money in their pockets, Africans are eating more fast food and adopting more sedentary lifestyles, leading to a surge in obesity and associated diseases like diabetes and cancer, say experts.

Rates of obesity and overweight are rising in nearly every country in the world, the Global Nutrition Report said, describing malnutrition as the 'new normal'.

'Many countries now across the continent are facing a double burden of malnutrition,' says Shane Norris, a nutrition expert at the University of Witwatersrand in South Africa.

'There's still persistent undernutrition in early life and overweight and obesity in later life.'

While undernutrition is falling globally, few countries are succeeding in tackling obesity and the four main non-communicable diseases (NCD) linked to it: diabetes, cancer, cardiovascular diseases and chronic respiratory diseases.

NCDs are projected to become the leading cause of death in sub-Saharan Af-



rica by 2030, according to the World Bank.

South Africa is the most obese country in sub-Saharan Africa, Norris said, with over 40% of adults overweight or obese.

'The malls are the 'in' thing,' said Zachary Muriuki, a nutritionist specialising in diabetes with Kenya's Health Ministry.

'We are seeing a trend of obesity cases rising,' he said, blaming unhealthy diets and increased use of cars.

In Kenya, 84% of people always or often add sugar to their food and drinks, while 94% of people eat less than the recommended five portions of fruit and vegetables a day, government data shows.

Culture also plays a role, particularly for women who are seen as successful, happily married and healthy when they are overweight, experts said.

# Yellow fever death toll passes 400 in Africa

More than 400 people have died from yellow fever in Africa, the World Health Organization (WHO).

The WHO and other groups are trying to help Angola and the Democratic Republic of the Congo fight worsening outbreaks of the deadly mosquito-borne virus.

More than 3000 cases have been reported in Angola, the epicentre of the outbreaks, the WHO said. 'The total number of reported deaths there is 345,' the organization added in an update.

'Mass vaccination campaigns first began in Luanda and have now expanded to cover most of the other affected parts of the country, recently the campaigns have focused on border areas. Despite extensive vaccination efforts, circulation of the virus persists.'

And more than 1000 suspected cases are reported in the Democratic Republic of the Congo, with 71 deaths. A few cases have also been reported in Kenya and China — carried by travellers. Uganda has had 30 cases and seven deaths.

'Seven countries (Brazil, Chad, Colombia, Ethiopia, Ghana, Peru and

Uganda) are currently reporting yellow fever outbreaks or sporadic cases not linked to the Angolan outbreak,' the WHO added.

'The outbreaks of yellow fever in Angola, Democratic Republic of the Congo and Uganda have placed great demand on the global supply of yellow fever vaccines,' the WHO said.

'The global stockpile of six million vaccines for emergency response (normally enough for a year) has already been replenished twice this year.'

The WHO says it will be difficult to control the spread of the virus.

'As the borders are porous with substantial cross border social and economic activities, further transmission cannot be excluded,' it said.

'A small proportion of patients who contract the virus develop severe symptoms and approximately half of those die within seven to 10 days,' the WHO said.

Although it's unrelated to Ebola, yellow fever can cause similar bleeding symptoms. Like so many other infections, it can look like malaria, hepatitis, other viruses or even poisoning.

# Group B streptococcus incidence in sub-Saharan Africa suggests need for greater prevention

Findings published in *Paediatric Infectious Disease Journal* ([http://journals.lww.com/pidj/Abstract/publishahead/Disease\\_Burden\\_of\\_Group\\_B\\_Streptococcus\\_among.97356.aspx](http://journals.lww.com/pidj/Abstract/publishahead/Disease_Burden_of_Group_B_Streptococcus_among.97356.aspx)) suggested that the incidence of early-onset group B streptococcus in sub-Saharan Africa between 1990 and 2014 was 1.3 per 1000 births, indicating that better preventive methods are necessary.

'The estimated incidence in sub-Saharan Africa... suggest a burden of disease at least comparable to that found in high-income settings prior to the use of intrapartum antibiotics,' Anushua Sinha, MD, MPH, in the department of health systems and policy at Rutgers School of Public Health, and colleagues wrote.

Currently, researchers are developing a pentavalent vaccine to prevent early-onset and late-onset GBS in newborns, the researchers wrote. However, international health organisations and funders, they said, will need to know the burden of disease, especially in areas with high infant mortality such as sub-Saharan Africa, to better inform their decision-making before introducing a potential vaccine.

To determine the incidence and serotype distribution of maternal GBS, the researchers performed a literature review and meta-analysis of studies between 1990 and 2014. Overall, 17 studies on colonisation, nine on disease incidence and six regarding serotype distribution were included.

The researchers found that 21.8% of pregnant women in sub-Saharan Africa were colonised with GBS (95% CI, 18.3-25.5). The incidence of early-onset disease was 1.3 per 1000 births (95% CI, 0.81-1.9), while late-onset incidence was 0.73 per 1000 births (95% CI, 0.48-1).



## Hot drinks probably cause cancer, warns World Health Organization



Hot drinks probably cause cancer and they should always be left for a few minutes to lower the temperature, or cooled down with milk to avoid disease, the World Health Organization (WHO) has warned.

The International Agency for Research on Cancer (IARC), an agency of the WHO, said very hot drinks of 65C and over double the risk of developing cancer of the oesophagus.

However, the panel found there was no evidence that coffee or tea causes cancer and said any link was because of the hot temperature of the drink.

Dr. Christopher Wild, director of IARC, said: 'These results suggest that drinking very hot beverages is one probable cause of oesophageal cancer and that it is the temperature, rather than the drinks themselves, that appears to be responsible.'

The lifetime risk of getting oesophageal cancer in a man is 1 in 55, meaning that for every 550 men, 10 would get oesophageal cancer anyway. The new research suggests that this increases to 20.6 out of 550 for men who drink very hot beverages, a doubling of the risk.

Experts said that most Britons should not be overly alarmed by the findings. Recent research published in the journal *Burns* found that a cup of tea with 10ml of milk cooled to less than 65C in under five minutes.

'So as long as you let your drink cool down a bit before you drink it, you're unlikely to be much at risk.'

## Lack of transgender healthcare curbs development

A recent study reveals that failure to provide adequate healthcare for transgender people is holding back development in Africa and the Middle East.

Transgender people whose healthcare needs are not met experience high rates of HIV and mental health problems such as depression, say a series of three research papers published in *The Lancet*. The issue is compounded by discrimination and criminalisation of transgenderism in many African and Middle Eastern countries, making transgender people more likely to be victims of violence, one paper found.

The study found that these healthcare failures place an extra burden of care on transgender people and their families.

'Faced with stigma, discrimination and abuse, transgender people are pushed to the margins of society,' warns Sam Winter, a health researcher

at Curtin University, Australia, and lead author of one study. 'The health challenges faced by transgender people are exacerbated by laws and policies that deny them gender recognition.'

The researchers found that, due to criminalisation and low awareness of transgenderism, there is little data and information on the state of health of transgender people in developing countries.

This could hinder global efforts to ensure good healthcare for all people by 2030 - a target fixed by the Sustainable Development Goals, the authors say.

But laws and cultural attitudes in many African and Middle Eastern countries make it nearly impossible for transgender people to receive tailored healthcare, one paper warns. This includes sexual healthcare, psychological care and treatments to help them become the gender they identify with, such as surgery, hair removal or speech therapy.

## Hospitals in developing countries lack running water

A study of 430 hospitals in the developing world found that more than one-third lacked running water, a deficiency that can lead to unsanitary conditions for patients and dangerous conditions for those needing surgery.

The research, led by the Johns Hopkins Bloomberg School of Public Health and published online in the *Journal of Surgical Research* ([dx.doi.org/10.1016/j.jss.2016.06.040](https://doi.org/10.1016/j.jss.2016.06.040)), points to larger deficiencies in the healthcare systems in many of the world's low- and middle-income countries, and highlights the need to focus on basic infrastructure in order to prevent the spread of disease and improve health outcomes there.

'Instead of water just being there, some hospitals truck in water or collect it in rain barrels, with no guarantee of its cleanliness. Without clean water, there is no way to clean surgeons' hands or instruments, wash gowns and sheets or clean wounds to prevent or reduce infections,' says one of the study's leaders, Adam L. Kushner, MD, MPH, an adjunct professor at the Bloomberg School.



For their study, the researchers analysed published research related to surgical capacity in low- and middle-income countries. They identified 19 surgical capacity studies undertaken between 2009 and 2015 that included information on water availability covering 430 hospitals in 19 nations. They found that 147 of the 430 hospitals lacked continuous running water (34%). These ranged from less than 20% with running water in Liberia to more than 90% in Bangladesh and Ghana.

Many people in the world - an estimated 700 million - live without access to water; half of those without water live in sub-Saharan Africa. Lack of access to water and sanitation has a significant negative impact on healthcare provision, including surgical care, the researchers note.



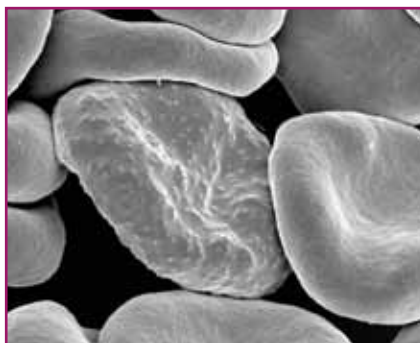
# Novartis expands partnership with Medicines for Malaria Venture to develop antimalarial

Novartis and Medicines for Malaria Venture (MMV) will further expand their long-standing partnership to develop next-generation antimalarial treatment.

Novartis will lead the development of antimalarial compound KAF156 with scientific and financial support from MMV in collaboration with the Bill & Melinda Gates Foundation.

‘With a child dying from malaria every two minutes and the threat of drug resistance growing year-on-year, there is a real urgency to step up global efforts to combat this disease,’ said Joseph Jimenez, CEO of Novartis. ‘Partnerships and collaborations like this one with MMV are essential for the development of next generation antimalarials and accelerating efforts to eradicate this deadly disease.’

KAF156 belongs to a novel class of antimalarial molecules and is one of the first antimalarial drug candidates to enter Phase IIb clinical development in more than 20 years. It acts against the two parasites responsible for the majority of malaria deaths (*Plasmodium falciparum* and *Plasmodium vivax*) and against both the blood and liver stages of the parasite’s lifecycle. Further, it has the potential to provide a more convenient dosing regimen and to address the multidrug resistance that has emerged



in five countries of the Great Mekong Sub-region (GMS). KAF156 builds on the heritage of Novartis in antimalarial drug development and the launch in 1999 of Coartem®, the first fixed-dose Artemisinin-based Combination Therapy (ACT). ACT is the current standard of care in malaria treatment.

‘We are delighted to extend our partnership with Novartis in the development of this exciting candidate antimalarial medicine with the potential to tackle drug resistance and improve patient compliance,’ said Dr. David Reddy, CEO of MMV. ‘As such, this agreement marks an important milestone, as MMV continues its mission to discover, develop and deliver new, effective and affordable antimalarials to the patients who need them most.’

## Promoting community health in Liberia post-Ebola project

The Pentecostal Mission Unlimited (PMU-Liberia) has ended an eight-month Ebola community action platform (E-cap 2) project, calling on community members to promote good health.

The Programme Manager of the organisation, Mr. Devestus James explained that the project was intended to promote community health, and ensure community resilience to diseases in Liberia.

According to Mr. James, PMU-Liberia was picked among several Non-Government Organisations to implement the E-cap 2 project in Lofa County, which targeted over 60 communities.

James said: ‘Recently, we encour-

tered Ebola. Now coming down to the community level where people were victimised. What can you do in the absence of Ebola or prepare them for similar occurrences of community illnesses?’

James said providing basic education or public awareness about infectious diseases and other illnesses will help communities to be fully prepared for future outbreak of diseases in the absence of external donors or institutions.

James said although 60 communities were earmarked for the project, the PMU managed to reach over 90 communities as a result of the support from community members.

## Patient views highlight potential for Peek smartphone suite to transform eye health

The Portable Eye Examination Kit (Peek) has real-world potential to transform global eye health, according to new research from the London School of Hygiene & Tropical Medicine and Amref Health Africa in Kenya.

Patients, healthcare providers and stakeholders in ophthalmic service provision have given a positive evaluation of Peek in a parallel study to the Nakuru Eye Disease Cohort Study, funded by The British Council for the Prevention of Blindness, Fight for Sight, the Medical Research Council, and the International Glaucoma Association.

Peek is a smartphone-based system developed to be an affordable user-friendly alternative for performing comprehensive eye exams anywhere in the world. It consists of a suite of apps, a unique hardware adaptor for the phone’s camera, integrated systems to share the data with specialists and a programme of training.

Results published in JMIR mHealth uHealth, a leading health informatics peer-reviewed journal, show a clear positive response towards Peek from all participant groups. The study also highlights some key considerations that need to be addressed if Peek is to become a sustainable solution to the shortfall in ophthalmic healthcare.

Key challenges identified in the study included the need for government support to deploy Peek, building capacity to train healthcare providers and mobilising community health volunteers. Ensuring data protection and access to low-cost smartphone technology also emerged as important themes.

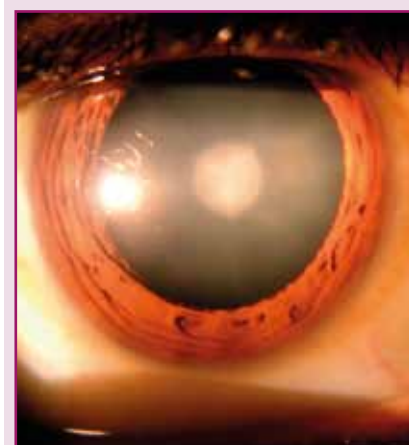


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