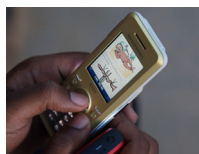


## mHealth: in search of a cogent agenda



The use of mobile phones in providing health services is well documented. In countries like Kenya and South Africa,

SMS reminders are used to remind AIDS patients to take their medication. Other projects use mobiles to educate people about malaria and help manage diabetes. However, a number of these projects are the preserve of NGOs and as with any kind of public funding, there is a danger that it will run out. This means that NGOs cannot always sustain mHealth projects. One way of getting around this is by encouraging entrepreneurship in the mobile health sector.

Marcha Neethling of the Praekelt foundation, which 'builds open source, scalable mobile technologies, and solutions to improve the health and wellbeing of people living in poverty,' believes simply that 'the NGO model does not work.' On the other hand, there is definitely a case for commercial interests to enter into the mHealth sector says Dr Peter Benjamin, Managing Director of Cell Life. 'There's a huge buzz around mHealth, you can go to an international mHealth conference every 3 days,' he says. Marius Conradie, head of mHealth for African cellular giant Vodacom, feels that much of this buzz comes from a need for the commercialisation of the field. 'In order for any mHealth initiative to be sustainable, it has to be commercially sustainable,' he says.

Benjamin cautions, however, that – as of yet — 'there aren't any major business models that have been shown to work.'

Neethling believes, though, partner-

ships are critical to mHealth working well. The partnerships that really work, she says, are ones that 'bring together everyone from government, doctors, and network operators to sangomas.'

According to Benjamin, there are two primary ways mobile can be used to improve healthcare:

To help the health system do what it needs to do, but a little more cheaply and effectively. Cellphones can be put in every health centre for data collection, for example.

To impact in providing healthcare to individuals. This includes reminding patients to take their medication and educating them about healthcare, to complex examples like using a cell-phone's camera to do remote dermatological tests on diabetes patients.

Large tech players are already staking a claim in the mHealth space. Internet giant Google, for example, launched a health tips service in Uganda. The service allows people to SMS in their health related questions and uses Google's search algorithm to respond with one of over 6000 pre-programmed answers.

Anyone looking to get into the mHealth sphere shouldn't, however, rush technology onto people, cautions Conradie. 'It's about using mobile technology that people are used to,' he says. 'If a remote rural community have never used smartphones, you probably shouldn't be developing a high-level app for them.' He adds that if mHealth is to be commercially viable, 'Government participation is key.' National governments, after all, are frequently a country's biggest investor in health.

### Tryps on the increase?

Sleeping sickness could threaten tens of millions more people as the tsetse fly which transmits the disease spreads to southern Africa as a result of global warming, according to a recent study. By 2090, an additional 40 to 77 million people could be at risk of exposure to the disease, the study concludes. Currently 75 million people live within its range.

The scientists base the estimate on

how the tsetse and the Trypanosoma parasite it carries are likely to respond to rising temperatures in coming decades.

At present, 70 000 cases of sleeping sickness, also called trypanosomiasis, occur each year in eastern, central and western Africa, according to the World Health Organization (WHO).

The research was led by Sean Moore of the US Centers for Disease Control and published in the *Journal of the Royal Society Interface*.

### World Diabetes Day 14 November 2011

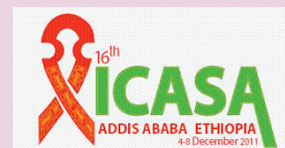
World Diabetes Day raises global awareness of diabetes – its escalating rates around the world and how to prevent the illness in most cases. Started by the International Diabetes Federation (IDF) and the World Health Organization (WHO), the Day is celebrated on 14 November to mark the birthday of Frederick Banting who, along with Charles Best, was instrumental in the discovery of insulin in 1922, a life-saving treatment for diabetes patients.

### Guinea-worm disease on track for eradication

Dracunculiasis, a crippling parasitic disease also known as guinea-worm disease is on the verge of eradication. Only four countries in Africa are still reporting cases. The new state of South Sudan alone accounts for 97% of cases. However, obstacles like funding and access to disease-endemic areas remain in the path of total eradication.

### Measles outbreak

Africa: The WHO Regional Office reports that as of September 2011 large measles outbreaks are being reported by the Democratic Republic of the Congo, with over 103 000 cases, Nigeria, with 17 428 cases, Zambia, with 5397 cases, and Ethiopia, with 2902 cases. Even though deaths are not routinely reported to the Regional Office, the WHO Country Office in the Democratic Republic of the Congo reports over 1100 measles-associated deaths in the country during 2011.



### 16th ICASA conference

The International Conference on HIV/AIDS and Sexually Transmitted Infections in Africa (ICASA) is the principal forum on HIV/AIDS and STIs in Africa. The 16th ICASA Conference will be held from 4–8 December 2011 under the theme: 'Own, Scale-Up and Sustain' in Addis Ababa, Ethiopia. For more details go to: <http://www.icasa2011addis.org>.

## Dr Luis Sambo encourages key interventions for HIV/AIDS prevention



The WHO Regional Director for Africa, Dr Luis Sambo, has highlighted the substantial progress in HIV/AIDS control and encouraged countries of the African Region to implement a package of key interventions to improve universal access to HIV/AIDS prevention, treatment, and care including the control of HIV/TB co-infection.

Dr Sambo was addressing the second workshop of the SADC Military sub-committee on HIV/AIDS that took place in Luanda in September. The WHO Regional Director noted that, of the 33 million HIV-infected people globally, 22 million live in sub-Saharan Africa, with Southern Africa the most affected sub-region with prevalence ranging between 2.8% and 39%.

He mentioned that efforts have resulted in an approximately 25% reduction in the number of new HIV cases in 22 African countries and commended African states and international partners for their political commitment, technical support, and financial investments.

Dr Sambo stressed that the biggest challenge today is to provide treatment for more than two-thirds of people who still lack access to antiretrovirals and to ensure that people on treatment do not abandon it otherwise they stand a risk of building resistance to antiretrovirals. Dr Sambo reiterated the importance of HIV prevention and AIDS treatment as part of the Millennium Development Goals and urged SADC countries to develop six key interventions for effectively achieving universal access to prevention of this pandemic of the century. The interventions are: ensuring public education; scaling up voluntary testing and counselling; promoting primary prevention; intensifying activities for preventing vertical transmission; male circumcision as part of the package of interventions for prevention; and controlling HIV/AIDS and tuberculosis co-infection.

In the overcrowded informal settlements of Mogadishu, where nets are not practical, a first round of indoor spraying aimed to reach 45 000 households has taken place. This will protect for 3 to 4 months and will be followed by a second round of spraying in March and April next year. As part of equipping health facilities with the capacity to diagnose and treat cases, 560 000 doses of Artemisinin-based Combination Therapies (ACTs) and 1 million rapid diagnostic tests will be provided to health facilities, community level health posts, and additional service delivery points established by partners. 'With these investments in prevention and treatment, and by encouraging people to seek treatment quickly, we can avoid the tragic impact malaria has on people's lives,' said Professor Michel Kazatchkine, Executive Director of the Global Fund.

### Massive push to protect Somalis from malaria

An estimated two and a half million people in Somalia are at risk of contracting malaria. To prevent a malaria epidemic and deaths, especially among malnourished young children and internally displaced populations, a massive response is underway. UNICEF, WHO and partners are scaling up the response to a potential malaria outbreak with funding from the Global Fund for AIDS, Tuberculosis and Malaria (GFATM) and the UK Department for International Development.

To protect children and their families from contracting malaria, 280 000 long-lasting insecticide treated nets have been distributed to more than 140 000 households targeting people living in the most high-risk areas. This is in addition to the 79 000 nets which have already been distributed since July.

### One in four people will require mental healthcare

New figures from the WHO Mental Health Atlas 2011 indicate that while the need for mental healthcare is large, with up to 25% of the population requiring it at some point in their lives, there is underinvestment in the sector. The Atlas shows average global spending on mental health is still less than US\$3 per capita per year and as little as US\$0.25 per person per year in low-income countries.

### UN Summit adopts measures to curb death toll from NCDs

In September, the landmark UN high-level conference on non-communicable diseases (NCDs) ended in New York after considering strategies to prevent and control mostly life-style and diet-related diseases that have become major killers in Africa and across the world.

Delegates at the 2-day meeting, hosted by the General Assembly, adopted a declaration calling for wide-ranging actions to stem the rising tide of NCDs such as diabetes, heart disease and stroke, chronic respiratory disease, and cancer, which together kill some 36 million people each year. It is projected that, globally, deaths from NCDs will rise by a further 17% over the next 10 years, but the greatest increase (27%), is expected to be seen in the African region.

### Link between swine flu and stillbirth

Babies born to mothers who contracted the swine flu virus faced a much greater risk of being stillborn, according to a new study.

Baby deaths among women infected with the 2009 strain of the virus were five times higher than normal. There was also a greater risk of premature births when compared to mothers who had not caught the virus.

The study was carried out by the National Perinatal Epidemiology Unit at the UK's Oxford University and it examined the cases of every pregnant woman in the UK who was admitted to hospital while suffering from flu.

In 256 mothers infected with the H1N1 flu virus seven of the babies were stillborn and three died shortly after birth.

## Adapt your cooking methods – save your health



The US Agency for International Development (USAID) is initiating research to find out whether developing world families will adopt a new cooking technology and adapt their cooking methods to save their health.

A year-old movement to introduce cleaner-burning cooking methods in the developing world aims to reduce the indoor air pollution that results from cooking on fires using wood, dung, or other combustible materials. Nearly 2 million people die each year because of health problems aggravated by poor air quality in their homes. Women and children are disproportionately represented in these

deaths because they are the family members who stay at home around the cooking fires.

But what and how a person cooks and how a person prepares meals is heavily influenced by traditional habits handed down through generations. Good intentions to change those behaviours likely will fail if those wishing to promote change don't consider personal preferences, social norms and community attitudes, according to an October USAID press release.

The agency has awarded grants to several organisations to conduct the social behavioural research to determine the best way to introduce the cleaner stoves so that families will adopt them, use them, and thereby improve the air quality in their dwellings and avoid excessive respiratory problems.

The United States has contributed US\$50 million to the project, with further resources coming from other donor nations, host governments, and corporate founding partners.

### Launch of youth health programme.

A partnership between AstraZeneca, Plan International, and Johns Hopkins Bloomberg School of Public Health will help young people improve their lifelong health. The commitment will benefit 250 000 adolescents across 15 countries and occurs in tandem with the Young Health Programme's launch in Zambia, which will include training for peer and community staff as well as education and health services in the Chadiza District.

### Striking a deal between public and private health insurance

South African Health Minister Aaron Motsoaledi said he wants to deal 'fairly and openly' with costs in the country's healthcare industry as Africa's largest economy plans to introduce compulsory medical insurance.

'Health is a public good and if we leave it only to market forces we can't reach our goals of extending healthcare

to the entire population,' he said in a speech in Johannesburg. 'I am not saying there must not be commerce, but it must be reasonable.'

The private healthcare industry will continue to exist. 'Not in the African National Congress, Cabinet or any structure I belong to, have we discussed killing private healthcare. It's not on the agenda.'

### Empowerment please!

A call for an increase in economic opportunities for grassroots communities has been made by African Monitor, an independent organisation that monitors development funding commitments, funding delivery as well as the impact on grassroots communities in Africa.

It warns that if Africa's current development trajectory does not actively engage with the skills, knowledge base and experience of grassroots communities, the African Moment will not materialise. It defines 'The African Moment' as the renewed hope that Africa is on the brink of a major development breakthrough.

### UN says world population to hit 7 billion in 2012

The world's population will hit 7 billion early in 2012 and top 9 billion in 2050, with the vast majority of the increase coming in the developing countries of Asia and Africa, according to a UN estimate.

Hania Zlotnik, director of the UN Population Division, said that 'there have been no big changes' from the previous estimate in 2006.

Nine nations are expected to account for half the projected increase: India, Pakistan, Nigeria, Ethiopia, the US, Congo, Tanzania, China, and Bangladesh, the report said.

### Fake drugs in Nigeria declining says NAFDAC

Efforts by the National Agency for Food and Drug Administration and Control (NAFDAC) to reduce the quantity of fake drugs in circulation in Nigeria appears to be having the desired effect. During a survey conducted in Lagos recently, an assessment of drugs stocked in registered pharmacies in some parts of the state showed only very few cases of fake drugs stocked.

### Swaziland: HIV-positive pilots grounded

New Civil Aviation Authority Regulations for 2011 prohibit the granting of pilots' licences in Swaziland to individuals who are HIV-positive or have tuberculosis. Routine medical examinations are required while applying for licences and the examining doctor conducts an HIV test. The results are given to the Civil Aviation Authority which has no confidentiality policy, despite a Health Ministry policy of confidentiality for HIV-positive people.

### A helping hand

The Kenya government has announced plans to halt deterioration at the Moi Teaching and Referral Hospital in Eldoret. They include the immediate release of Sh300 million to pay off debts owed to suppliers of medical requirements to the hospital.

The hospital serves the entire North Rift region and a large part of Western Province.

## Is type 2 diabetes now an African epidemic?

Over the last 3 months of consulting in the Family Medicine clinic of Wesley Guild Hospital, Ilesa I have diagnosed 21 new diabetic patients with age ranging between 32 and 45 years. I felt that they were randomised to my consulting room by chance until four other colleagues in my clinic made me realise that they had noticed a similar trend in their consulting rooms. Mobile phone enquiries confirmed a similar trend in Lagos, Ibadan, Benin, Ilorin, Ghana (Accra), South Africa (Pretoria), and Mali (Bamako).

Diabetes is here with us, and if the current trend of rapid Westernisation of many African societies continues, it will be with us for a long time to come. According to Dr J Jervell, President of the International Diabetes Federation, 'As populations in the developing countries enhance their economic demand, they tend to seek out many of the lifestyle traits of Western society that we now accept as causally linked factors in non-communicable diseases.'<sup>1</sup> Many researchers have also concurred that this is attributable to a gradual move towards Western diet in many societies in developing countries.

In today's world, 180 million people are suffering from diabetes.<sup>2</sup> Out of these, 162 million have type 2 diabetes. Type 2 diabetes, a state of diminished systemic sensitivity to insulin, has its root in the lifestyle of the subjects.

In the United States, a new diabetes patient is diagnosed every 50 seconds.<sup>3</sup> In the year 2000, the prevalence of diabetes in the WHO African Region was estimated at 7.02 million people, out of which about 0.7 million (10%) had type 1 diabetes and 6.3 million (90%) had type 2 diabetes.<sup>2</sup> About 113 100 people in the same report died from diabetes-related causes; 561 600 were permanently disabled; and 6 458 400 experienced temporary disablement. These figures are quite outdated and a recent account of non-communicable chronic diseases (NCCDs) revealed that Nigeria is one of Africa's leading countries with regard to the highest number suffering from diabetes. Also, the trend of type 2 diabetes in children is on the

increase with death due to diabetes projected to increase by 52% by the year 2015.<sup>4</sup>

Let us not forget the sizzling romance between obesity and type 2 diabetes. According to a study published in the *American Journal of Epidemiology*, a five pound gain increases the risk for diabetes by 10%.<sup>3</sup> A keen observation of Africans (at least the urban middle class and above) will show an emerging trend of increasing waistlines and invariably increasing blood glucose.

Diabetes has been inexorably advancing, doubling every 15 years. Up to now there has been no known medical cure. All the present medications can only control the disease. Many evidence-based programmes have, however, showed consistently that a whole plant-based diet and increased physical activity will not only control diabetes but could also reverse the disease in already diagnosed subjects.

Needless to say, we have a situation on our hands. Frontline physicians need to acquire more competence in the proper management of diabetes. If our present lifestyle in modern Africa is anything to go by, the endocrinologists cannot cope with the coming avalanche. An interest in diabetes issues followed by diabetology fellowship or an extended diabetology clinical attachment should suffice. In the Wesley Guild Hospital Family Medicine Unit we now hold a Diabetes Clinic each Thursday, such is the magnitude of the problem we have seen and decided to tackle. Is type 2 diabetes now an African epidemic?

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## WHO warns of consequences of underfunding TB

The World Health Organization has reported for the first time that the number of people falling ill with tuberculosis (TB) each year is declining. New data, published recently in the *WHO 2011 Global Tuberculosis Control Report*, also show that the number of people dying from the disease fell to its lowest level in a decade. Yet, current progress is at risk from underfunding, especially efforts to combat drug-resistant TB.

The new report finds: the number of people who fell ill with TB dropped to 8.8 million in 2010, after peaking at 9 million in 2005; TB deaths fell to 1.4 million in 2010, after reaching 1.8 million in 2003; the TB death rate dropped 40% between 1990 and 2010, and all regions, except Africa, are on track to achieve a 50% decline in mortality by 2015; in 2009, 87% of patients treated were cured, with 46 million people successfully treated and 7 million lives saved since 1995. However, a third of estimated TB cases worldwide are not notified and therefore it is unknown whether they have been diagnosed and properly treated.

'Fewer people are dying of tuberculosis, and fewer are falling ill. This is major progress. But it is no cause for complacency,' said United Nations Secretary-General Ban Ki-moon. 'Too many millions still develop TB each year, and too many die. I urge serious and sustained support for TB prevention and care, especially for the world's poorest and most vulnerable people'.

'In many countries, strong leadership and domestic financing, with robust donor support, has started to make a real difference in the fight against TB,' said WHO's Director-General, Dr Margaret Chan. 'The challenge now is to build on that commitment, to increase the global effort – and to pay particular attention to the growing threat of multidrug-resistant TB.'

Among these countries are Kenya and the United Republic of Tanzania. In these African countries, the burden of TB is estimated to have been declining for much of the last decade after a peak linked to the HIV epidemic.

Brazil has reported a significant and sustained decline in its TB burden since 1990 and in China progress has been dramatic. Between 1990 and 2010, China's TB death rate fell by almost 80%.