

# THE ECLIPSE

## IMPROVING THE HEALTH SECTOR IN AFRICA



**The Health Sector In the Democratic Republic of Congo**

**Example of An Improved Health Sector From Somaliland**

**Improving The Health Sector In Africa - Opportunities in Space Technology Application**

## From The Editor

If the saying, “health is wealth is considered factual”, then African countries must strive to preserve the health of their citizenry to reduce the prevalence of poverty on the continent. The health sector in any country is central to achieving the goals of disaster risk reduction. Therefore issues affecting the sector should be addressed as such.

In most parts of Africa, the condition of the health sectors is similar; inadequate beds for in-patients, insufficient number of medical personnel, lack of access to drugs and facilities etc. This situation needs to be viewed against the backdrop of an increase in new diseases, the increased possibility of floods as well as other natural disasters and resultant complex emergencies. Against this backdrop, it is clear that the health sector in most Africa countries do not have the capacity to respond and may collapse under the pressure of a significant disaster.

There are several approaches to improving the health sector in Africa. These include improving the standards of existing primary health facilities and using new technology

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such as Episurveyor in use in Zambia and Kenya.

Space technology also has the potentials of saving lives in Africa. Today, space technology can help in the early detection of disease and containment of its spread. The continent of Africa ought to be abreast of these new developments in healthcare management. The continent needs to make significant investments in harnessing the opportunity provided by such new technologies and approaches to save lives.

**Aramide Adebola**

## **Profile: The Health Sector In The Democratic Republic Of Congo**

**Zawadi tells The Eclipse about the health care sector in Eastern, North Kivu province, the town of Goma and her opinion about improving it**

The major and growing concern of the health sector in DRC is the HIV pandemic, which is taking a heavy toll on the people. Also, the government has not proposed tangible solutions or measures and the awareness program is not that efficient. There are no VCTs, so the people don't have the courage to go for testing because they have to pay. Malaria is also another issue.

The government hospital has no drugs, so people prefer to go to private clinics which are expensive but many people can not afford this. For example the consultation fee in such hospitals is about \$5 and above ,hospitalization is \$3 and above. Sometimes it can be as high as \$20 for a private room. When admitted into these hospitals whether private or government you have to buy the medicine from pharmacies because they usually will not have enough supplies.

So far government has not done much, they promised to improve on the health department this year, but we are still waiting. People want the government to review the health sector and try to get specialized doctors because most of them left the country for greener pastures especially South Africa and other countries. We also want the government to equip the hospitals with the latest equipments, some things like ultrasound and X- rays and scanner are a luxury and rare to be found. Those who have money travel to other countries like South Africa and Kenya for better care.

My own opinion is that the government should look into the health of it's own people as soon as possible, people have gone through so much-wars and can't afford good services. Good health is not a favor but a right.

- Increase on the number of specialized doctors to be able to cater for the needs of the people.
- To equip the hospitals with the modern equipments
- To create VCT in different parts of the country
- To create nutrition centers to educate people on how to feed their families.

## How Space Technology Can Help Improve The Health Sector

At the Third United Nations conference (UNISPACE III) organized by the United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOS) an action team ([http://www.crc.ca/en/html/crc/home/partners/action\\_team6](http://www.crc.ca/en/html/crc/home/partners/action_team6)) was set up with the following mission “To foster the implementation of tele-health for developing countries and to improve public health services by facilitating the applications of space technologies in early warning of infectious diseases.”

This is a welcome development knowing that developing countries especially those in the Sub-Saharan African region have the worst disease burden in the world. This is evident in the latest UNDP human development index ratings in which none of these countries were in the 1<sup>st</sup> 120 out of 177 nations (<http://hdr.undp.org/en/statistics/>). There is a need to put all hands on deck and to utilize the best means available in addressing the situation. Thus the utilization of space science and technology (SST) to this end is not a luxury and holds great potential in helping African Nations ‘leap frog’ in an attempt to bridge the gap in healthcare and human development. The utilization of space technologies in healthcare in Africa has been on for over three decades. The applications of space technology in healthcare include the following key areas.

1. Landscape epidemiology (tele-epidemiology): The use of remote sensing data and satellite imagery in the analysis of disease epidemiological data to support disease surveillance and monitoring.
2. Telemedicine and Tele-health: the use of communications and information technologies for the delivery of clinical care and in healthcare.
3. Disaster Management: Aside from its potential in mitigation, in the event of climatic, geographic, environmental hazards or humanitarian crises space technology is useful in instituting a rapid and effective response by providing detailed coverage of affected areas and populations and providing decision support for relief efforts.
4. Decision Support Systems: This is the use of space technologies in developing information systems to aid as tools in healthcare policy, planning and management.

With the level of international commitment shown towards the achievement of the Millennium Development Goals, and recent moves by ESA, CNES, NASA,

## How Space Technology Can Help Improve The Health Sector

ISRO and other space agencies in making the benefits of satellite applications available to developing countries, the adoption of space technologies in healthcare by African Nations is no longer an uphill task. Also the institution of the International Charter “Space and Major Disasters” ([http://www.disasterscharter.org/main\\_e.html](http://www.disasterscharter.org/main_e.html)) makes space technology readily available in the event of catastrophes.

The African Union and NEPAD have also intensified collaborative efforts within the continent to develop capacity in the development and utilization of space technologies in Africa. The greatest hindrance thus would not be financial but the lack of political will on the part of the government of such countries.

The example of the Indian Space program is a model for all developing nations. India has risen to become a major space power with end to end capability in SST. The Indian space program is primarily focused on utilizing space technologies for development and they are truly a success at that. With applications in education, healthcare, agriculture, water resources management, disaster mitigation, telecommunications etc. all based on locally developed technology. They are a proof of how commitment, collaboration and hard work can improve the lot of a people.

There are existing collaborations that monitor diseases using space technology, e.g. the Centre for Geographic Medicine Research, at the Kenya Medical Research Institute supported by the Wellcome Trust and the University of Oxford has been involved in using space technology in research into diseases such as malaria, rift valley fever, dengue fever and other mosquito transmitted diseases. The French Space agency (CNES) have also had collaborations with Senegal, Burkina Faso and Niger in epidemiologic research. Many other opportunities for collaboration exist under various international agreements.

***This contribution is by Dr. Simeon and will be concluded in the next edition of The Eclipse. Dr Simeon is a medical doctor currently studying at the International Space University in France.***

## SOMALILAND: Example of An Improved Health Sector

*This contribution is from the Ministry of Health of Somaliland. This is an excerpt from the 2006 Annual Health Report. Activities of this ministry is a good example to counterpart ministries across Africa. Though situation may defer, this example from Somaliland show that it is possible with the right strategy to improve health care in our countries using available resources whilst we strive to increase our capacity to provide better health care services.*

### COMMUNICABLE DISEASES CONTROL

#### Introduction

CDC department of the Ministry of Health & Labour has the leading role of prevention and control & treatment of the major communicable diseases in line with their presence and epidemiological trends among the population through the country. One of the main strategies of communicable disease control is to contain any epidemics through utilizing disease early warning surveillance of communicable diseases so that MOHL has established network to maintain early detection and treatment of prevailing diseases. For effective epidemic control an adequate follow of information through weekly diseases surveillance from sentinel sites scattered in the six regions is absolutely necessary. Therefore weekly disease surveillance forms focused on the top communicable diseases have been developed for use and reporting by the selected sentinel sites in the regions, there are 29 sentinel sites, while all regional and district hospitals are chosen as sentinel sites. The rest of the sentinel sites are selective MCHS in the regions.

At present the highest disease burden in the country is attributed to communicable diseases thus MOHL places top priority on communicable diseases control.

The focus of the Ministry on communicable diseases control programme identifies the control and the prevention of those diseases contributing to the highest burden of disease in the country, which includes: - **Malaria, Tuberculoses, diarrhoeal diseases, HIV/AIDS, Meningitis and vaccine preventable diseases.**

The purpose of the EWARS report is to identify early the up-coming hazards specifically surveillance priority diseases which are Watery Diarrhea, Bloody Diarrhea, Meningitis, Measles & Malaria. Etc

# SOMALILAND: Example of An Improved Health Sector

Somaliland EWARS took steps to maintain availability of data but use data on plans and decisions need further improvement in order to benefit the incumbent surveillance net work in the MOHL., these sites scattered across the 6 regions of Somaliland.

## Achievements of communicable disease surveillance

Diseases	Watery Diarrhea	Bloody Diarrhea	Meningitis	Measles	Malaria
Cases	1196	269	52	166	321
Deaths	0	0	2	0	1

In 2006, communicable disease surveillance has worked hard to present surveillance report and has compiled the data in the above table and the below picture indicate figures reported by communicable disease surveillance sentinel sites. The purpose of EWARS report is to identify early the up-coming hazards specifically surveillance priority diseases which are Watery Diarrhea, Bloody Diarrhea, Meningitis, Measles & Malaria. etc

Somaliland EWARS took steps to maintain availability of data but use data on plans and decisions need further improvement in order to benefit the incumbent surveillance net work in the MOHL.

## Objectives

To reduce the morbidity and mortality resulting from the

To contain epidemics that may occur at any time in any where of the country

To reduce curative costs, production losses and to contribute to National development.

## Strategies

- Improve sentinel site surveillance networking system
- Train surveillance staff
- Expand surveillance sentinel sites
- Support communicable disease programme.

## **MALARIA CONTROL PROGRAM**

### **Introduction:-**

CDC department in the Ministry of Health & Labour grouped Malaria disease as major killer and a Public Health problem. Malaria is common illness among under five year children, in every year the disease takes away great number of under five year children, and leaves disabled on another number and make other numbers remain on bed for days, months or years, or make them emaciated, malnourished and leave them un immune for other infectious diseases, which lead death to the malaria infected case. Annual malaria prevalence is under reported. However it is fact that malaria impact is a real health treat which require effective measures of prevention and control against Malaria epidemic as one of the major killer diseases of Somaliland

MOHL has been in great combat against Malaria, anti malaria drugs are made available at all health facilities, but basic laboratory is not established at all health facilities. Health workers use clinical diagnosis during classifying febrile diseases that attend in MCH clinic. ITNs are provided in certain areas but furtherance of ITNs supplies would have been an effective method to reduce the malaria incidence, in particular where malaria is endemic.

### **Objectives**

- To strengthen preventative/control methods to reduce morbidity and mortality caused by Malaria.
- To establish specific Malaria intervention project focused on F.Malaria incidence areas.

To continue preventive measures to control vectors

### **Indicators**

- Annual blood examination rate.
- Slide positive rate.



# SOMALILAND: Example of An Improved Health Sector

Annual parasite incidence rate.

Annual Malaria incidence rate.

Slide falci-parum rate.

## **Prevalence**

The incidence and prevalence of malaria varies with the seasonal changes from region to region with estimated annual incidence rate of 2.5%.

Official statistics for malaria deaths are not available and most cases are diagnosed without microscopic examination.

## **Strategies**

Set-up early warning system for tracking acute febrile illnesses focused on endemic Malaria.

Early diagnosis and treatment of malaria is important and strengthening laboratory diagnostic facilities at regional hospitals and district health centres.

Promotion of personal prevention measures against mosquito bite by using ITNs and other mechanisms that prevent indoor bites.

Increase the availability of INTs supply and distribution at affordable costs.

Conduct training on new policies and new technology and carry out research.

Vector control through biological methods and environmental modification approaches.

## **Achievement analysis of < 5 year Malaria**

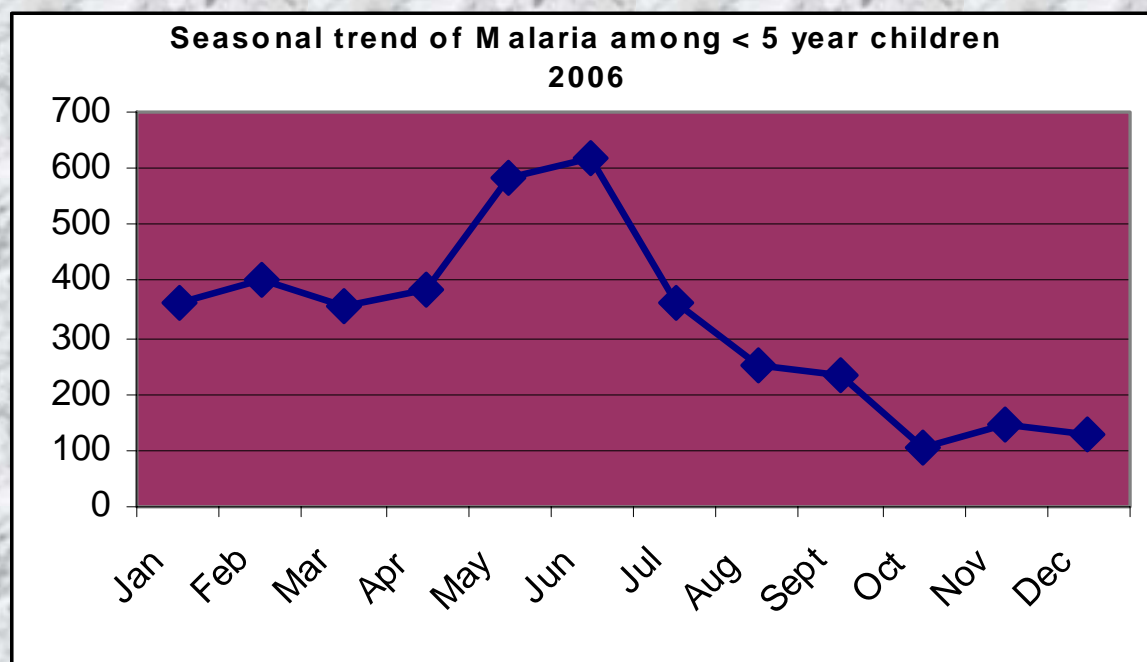
The below bar chart illustrate Statistical analysis of Malaria attacked < 5 year children, the data is reported by MCH in the six region. Togdher data show unusual event of Malaria attack among < 5 year children in 2006, I comparison to National, Malaria attack rate among < 5 year population signified 7/ 1000, While other Regions are below the National level. MOHL planed to develop case definition and specific strategies to identify malaria and treat cases properly.

## SOMALILAND: Example of An Improved Health Sector

At present Health facilities provide services without laboratory facilities and depend to use clinical observations and patient medical history to reach final judgment of diagnosing illness. It is important to have basic laboratory facilities at health centres for confirming malaria cases in order to identify and classify the type of malaria parasite causing the diseases and the severity of the illness.

### Seasonal Malaria Trends

The data in the following line graph gives Malaria seasonal trend on monthly, on the 1<sup>st</sup> quarter of the year Malaria incidence alter according to the climate, in May Malaria cases inclines up until June, then trend drops down and continue to slow down until December 2006.



**Source: HMIS MOHL 2006**

Obtaining data takes several steps to reach analysis centre at MOHL or the data is shared by various health sector organizations, which aim to support the Malaria affected population. WHO include those Organizations keen to minimize or eliminate Malaria through provision of technical and financial capacities to MOHL health facilities.

## **Delivering as One in Space-related Activities: United Nations Inter-Agency Meeting Concludes its 28th Session in Geneva**

VIENNA, 18 January (UN Information Service) - Delivering as one in space-related activities was one of the main issues at the 28th session of the United Nations Inter-Agency Meeting on Outer Space Activities, held 16-18 January at the Palais des Nations in Geneva. Organized by the United Nations Office for Outer Space Affairs (UNOOSA), the Inter-Agency Meeting is the primary coordination mechanism of the United Nations system to achieve better cooperation and create more synergy in space-related activities.

"Space is essential to address numerous development challenges. The United Nations family increasingly uses satellite images and global navigation satellite systems during humanitarian emergencies and for disaster reduction. Space technology can help predict an area's agricultural output well in advance in regions of the world where people still go hungry, thereby contributing to another important development goal - food security. And with global warming and climate change, one of the major challenges to our future generations, space technology has become a crucial tool to collect critical land, ocean and atmospheric data," explains Mazlan Othman, the newly appointed Director of UNOOSA - the secretariat and coordinator of the Inter-Agency Meeting.

As space technology and applications are increasingly used in the work of the United Nations system, the need to cooperate and avoid duplication of efforts in space-related projects within the United Nations is urgent. At least 25 UN entities and the World Bank Group routinely use space applications. With that in mind, the Inter-Agency Meeting discussed means to strengthen inter-agency cooperation and build partnerships within the UN family to better employ space solutions to address global challenges. In that context, the Meeting welcomed the establishment of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER), a bridge between UN entities and space communities, and a tangible case of inter-agency cooperation in disaster relief.

The Inter-Agency Meeting, attended by eleven UN entities identified the following key issues for inter-agency coordination:

- Reinforcing the contributions made by the UN entities to the implementation of the United Nations Spatial Data Infrastructure (UNSDI);
- Enhancing the use of space-based assets in support of disaster management and making optimal use of opportunities, such as the new UN-SPIDER programme;
- Reinforcing the contributions made by United Nations entities to the Global Earth Observation System of Systems (GEOSS) of the Group on Earth Observations (GEO);

Preparing a report on the use of space technology for sustainable development in Africa, to be presented to the third African Leadership Conference on Space Science and Technology for Sustainable Development in 2009.

During the Meeting, Member States and UN agencies met in the Open Informal Session to discuss ways to build mutually beneficial public-private partnerships and seek innovative funding approaches to promote space solutions. The Open Informal Session, held since 2004, is part of wider efforts by the Inter-Agency Meeting to engage Member States in a direct dialogue with UN entities on important space-related developments in the United Nations system.

More information on the United Nations Inter-Agency Meeting on Outer Space Activities and its Open Informal Session can be found on the website for the United Nations coordination of outer space activities ( <http://www.uncosa.unvienna.org/uncosa/index.html>).

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EclipseAfrica Team. Visit our website at  
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**The Eclipse is a magazine focused on issues of disaster management in Africa. It discusses issues pertinent to reducing the risk of disasters in African communities and cities. The Eclipse seeks to provide an informative network on reducing the risk of disasters for everyone.**