# TechnoHealth Surveillance

## Newsletter

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TechnoHealth Surveillance Newsletter
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**From the Editor's Desk**

Dear reader,

The Editorial Committee welcomes you to Volume 3, Number 1 & 2 of the *TechnoHealth Surveillance*.

The Southern African Centre for Infectious Disease Surveillance (SACIDS) has shared its scientific outputs with the Connecting Organizations for Regional Disease Surveillance conference delegates, which are highlighted in this issue.

Kindly find in this issue how SACIDS has expanded further the workforce in participatory community-based disease surveillance.

The Deputy Permanent Secretary of the Tanzania Ministry of Education, Science and Technology visited SACIDS to learn about the Africa Centres of Excellence (ACE), which is also highlighted in this issue.

We are delighted to have participated in the launch of the Tanzania National One Health Desk and Strategic Plan, which is described in this issue.

We look forward to your feedback and comments on this and other issues of *TechnoHealth Surveillance*. Kindly do not hesitate to share with us stories on health related events occurring in humans, animals and environment for the sustainability of our newsletter.

We wish you a happy reading.

*Enjoy your reading!*


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# SACIDS at the World United Against Diseases

The Connecting Organizations for Regional Disease Surveillance (CORDS) conference was held at the Centara Grand & Bangkok Convention Centre at Central World, Bangkok, Thailand from January 29-30, 2018. CORDS is a global initiative that works to catalyze collaboration among regional disease surveillance networks across the world in order to improve their capacity to prevent, detect, and control the spread of epidemics. Its vision is "a world united against disease".

CORDS is comprised of six international disease surveillance networks which include: the Asia Partnership on Emerging Infectious Diseases Research (APEIR), the East African Integrated Disease Surveillance Network (EAIDSNet), the Mekong Basin Disease Surveillance (MBDS), the Middle East Consortium on Infectious Disease Surveillance (MECIDS), the Southern African Centre for Infectious Disease Surveillance (SACIDS), and the Southeast European Center for Surveillance and Control of Infectious Diseases (SECID).

The CORDS conference was co-organized and supported by the Ending Pandemics (formerly the Skoll Global Threats Fund) and the Rockefeller Foundation as a side event of the Prince Mahidol Award Conference (PMAC). It was under the PMAC sub-theme: "*Harnessing the Power of Public-Private-Community Partnerships for Preventing, Detecting, and Responding to Zoonotic Diseases and Antimicrobial Resistance*". The conference was attended by members and representatives from the six networks. The panel discussions included topics on 'Innovating in surveillance using a digital approach', 'Making One Health surveillance work' and 'addressing antimicrobial resistance using the One Health Approach'.

The SACIDS representatives in the two-day conference included Mark Rweyemamu, Deo Mtasiwa, Esron Karimuribo, Gerald Misinzo, Severin Asenga, Filomena Namuba, Eric Beda, Stephen Mshana, Yunus Karsan, Zablon Bugwesa, Erasto Mbugi and Calvin Sindato.

The scientific outputs from SACIDS which were shared with the conference delegates included the Evolution of SACIDS from concept towards a sustainable structure; SACIDS One Health approach to genomics driven surveillance for antimicrobial resistance - a potential collaboration with EAIDSNet; genomic profiling of multidrug resistance tuberculosis among patients in Tanzania; inter-sectoral and inter-network collaboration for Improving disease surveillance in East and Southern Africa and using smart phones occupied with intelligent mobile and web apps for electronic system of disease surveillance in Tanzania.

Others included jointly working to control infectious diseases in Sub-Saharan Africa: Collaboration of SACIDS and East, Central and Southern Africa (ECSA) Health Community in PANDORA; community-based participatory disease surveillance enhanced by One Health Knowledge Repository; and mapping of *Mycobacterium tuberculosis* complex genetic diversity profiles in Tanzania and implication for SACIDS-EAIDSNet collaboration.

# SACIDS expands workforce in participatory community-based disease surveillance

In order to enhance community One Health security, the Southern African Centre for Infectious Disease Surveillance (SACIDS) has expanded a workforce by recruiting additional key stakeholders in Kilosa district to support participatory disease surveillance using One Health approach.

The key stakeholders were trained on the application of digital technology in the community-based disease surveillance. The aim of the training programme was to promote community level One Health security through improved outbreak detection, early communication and rapid response to enhance disease prevention and control at the source.

The training was conducted in Kilosa Town from February 7-21, 2018, and it was organized into two training clusters with each cluster taking seven days to complete.

*Mr. Abel Noel, the acting Kilosa District Executive Director, providing opening remarks of the training on the use of digital technology in the surveillance of human and animal health events in Kilosa District Council*

The stakeholders were drawn from 13 wards and 51 villages in Kilosa District Council. Others were drawn from Mikumi National Park. A total of 109 stakeholders were trained in the district including 81 Community Health Reporters (CHRs), 15 officers-in-charge of primary health care facilities and eight Wildlife Rangers (hereafter referred to as CHRs). Others included (one-each) Integrated Disease Surveillance and Response Focal Person from Kilosa District Council, District Medical Officer, District Veterinary Officer, Wildlife Ecologist and Wildlife Veterinarian.

*Mr. Samwel Mgohachi, the Mikumi National Park Ecologist, highlighting the wildlife surveillance system*

The training package included theory and practical sessions on the application of Information, Communication and Technology (ICT) tools in disease surveillance, recognition and recording of clinical manifestations in human and animal populations, their prevention and control measures. In addition, they were trained on ethics and best practices during the provision of health care services, collection and submission of

reports of health events to relevant authorities.

*Practices on the use of AfyaData to capture health events from community level*

*Dr. Eliesikia G. Mapunjo, the acting Kilosa District Medical Officer, highlighting on the detection of clinical manifestations in human population at community level*

*Mr. Godluck Akyo (front-left) demonstrating to the officers In-charge of the primary health care facilities from Kilosa District Council the use of AfyaData in the visualization and exploration health events from community level*

All CHRs were provided with android phones installed with *AfyaData*, which is a mobile phone digital surveillance tool designed for capturing, reporting, data exploration, and provision of feedback on health events. The paper-based data capture forms for human, livestock and wildlife official surveillance systems were digitized and installed in the smart phones. The stakeholders were trained on how to use the digitized forms to capture and submit health related data from community to relevant authorities.

All CHRs were trained on how to refer patients to health care facilities and were provided with referral forms. In addition, the trainees-specialist *WhatsApp* group network was established to assist sharing of experience, challenges and solutions.

*Trainees practicing on household visit to provide health care services and collect health data using AfyaData tool*

*Dr. Yuda Mgeni, the Kilosa District Veterinary Officer, highlighting on the detection of clinical manifestations in animal population at community level*

*Mr. Kessy Mkambala, the Kilosa District Executive Director, providing closing remarks of the training on the use of digital technology in the surveillance of human and animal health events Kilosa District Council*

The trained individuals were provided with certificates of participation and letters of introduction to authorities in their respective areas.

## The Deputy Permanent Secretary visits SACIDS

It was on 7th of February, 2018, when the Deputy Permanent Secretary of the Tanzania Ministry of Education, Science and Technology, Prof. James Epifani Mdoe visited the Southern African Centre for Infectious Disease Surveillance (SACIDS), with the aim of learning about the Africa Centre of Excellence (ACE) of Infectious Diseases of Humans and Animals (SACIDS-ACE), based at Sokoine University of Agriculture (SUA), Morogoro Tanzania

Upon his arrival, Prof. Mdoe was met by the SUA's Vice Chancellor Prof. Raphael Chibunda. Accompanied by the SUA Management, Prof. Mdoe visited the SACIDS-ACE Molecular Biology Laboratory at the College of Veterinary Medicine and Biomedical Sciences (CVMBS).

He met and spoke to the SACIDS Secretariat staff, SACIDS-ACE postgraduate students and Heads of Department at the College. The Principal of CVMBS Prof. Maulilio Kipanyula briefed Prof. Mdoe of the CVMBS and the SACIDS-ACE Centre leader Prof. Gerald Misinzo briefed on the SACIDS-ACE progress.

For his part, Prof. Mdoe commended the Centre works in research and capacity building and noted its challenges and assured the Government's commitment to support the Centre. He also urged the Centre to publicize its capacity in molecular biology of infectious diseases in order for other Tanzanian institutions to utilize its technology and expertise.

Prof. Mdoe also visited the other Africa Center of Excellence (ACE) at SUA, the ACE for Innovative Rodent Pest

Management & Biosensor Technology Development. Other areas visited were the Department of Food Technology, Nutrition and Consumer Sciences, the Sokoine National Agricultural Library, SUA Health Centre, Student's Hostel and the University Farm.

*The Deputy Permanent Secretary of the Tanzania Ministry of Education, Science and Technology, Prof. James Epifani Mdoe (7th from left), in a group photograph with delegates from the Sokoine University of Agriculture*

## SACIDS showcased research activities during the launch of the Tanzania National One Health Desk and Strategic Plan

The growing body of scientific evidence shows that over sixty percent of the human infectious diseases we are witnessing today have animal origin. This suggests that effective control and prevention strategies against the diseases would benefit from collaboration of all relevant sectors. The commitment for multi- sectoral and inter-sectoral collaboration to jointly address the emerging health challenges at the animal-environment-human interface has been underscored by the Government of United Republic of Tanzania during the launch of the One Health Coordination Desk and the National One Health Strategic Plan, which took place in Dar es Salaam on February 13, 2018.

The establishment of the One Health Coordination Desk and other elements of the National One Health Platform was an important milestone towards strengthened mechanisms for the relevant sectors to working together to protect humans and animals and the ecosystem. This will ultimately contribute to the prevention, detection and response to disease outbreaks in line with the International Health Regulations and Global Health Security Agenda.

The event was officiated by Hon. Kassim Majaliwa (MP), the Prime Minister of the United Republic of Tanzania. In his remarks, Hon. Kassim Majaliwa highlighted on the commitment of the United Republic of Tanzania to achieving the health security capacities in Tanzania and beyond. He pinpointed that this giant step provides suitable collaborative environment to prevent, detect and respond to diseases outbreaks including those transmissible between animals and humans (zoonoses), antimicrobial resistance and other emerging health challenges from the animal, human and environment sectors.

Hon. Majaliwa commended the efforts made by the World Health Organization and partners in the development of the National One Health Strategic Plan and urged for active participation and support from all relevant sectors in safeguarding successful implementation of the plan.

"One Health approach is the collaborative effort of human health, animal health, and environmental sector to attain optimal health for people and animals, and protect the environment. The One Health approach is used to reduce the risk of new emerging pandemics through strengthening capacities to prevent, detect, and respond to known and emerging threats. One Health is an international best practice endorsed by the World Health Organization, the World Organization for Animal Health, the United Nations Food and Agriculture Organization, and the Global Health Security Agenda partnership.

During the event the Southern African Centre for Infectious Disease Surveillance (SACIDS) had an opportunity to showcase its scientific work in promoting One Heath research and training including its theory of change on community-based One Health participatory disease surveillance using digital technology.

*The Tanzanian Prime Minister Hon. Kassim Majaliwa and his delegates at the SACIDS booth during the launch ceremony*

Exhibiting its works during the launch, SACIDS demonstrated the *AfyaData* application to enhance early detection, timely reporting and prompt response of health events in

human and animal populations. *AfyaData* app incorporates the features of current official disease surveillance data collection in both the human and animal health sectors plus additional features such as geo-tagging and mapping, feed-back loops and integrative knowledge management to assist primary responder decisions. It enhances the linkage of health events from community level to the national surveillance systems in the human and animal health sectors. Development and deployment of *AfyaData* in Tanzania is being supported by the Ending Pandemics (formally the Skoll Global Threats Fund).

*The Minister of State in the Prime Minister's Office responsible for Policy, Parliamentary Affairs, Labour, Employment, Youth and the Disabled, Hon. Jenista Mhagama getting details of the application of digital technology in disease surveillance from Eng. Eric Beda at the SACIDS booth*

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