



Challenges to the implementation of the One Health approach in Southern Africa (SACIDS)

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Defining One Health

- the collaborative efforts of multiple disciplines working locally, nationally and globally, to attain optimal health for people, animals and our environment.



Why One Health in Africa?

- Africa harbours a large number of infectious animal and zoonotic diseases, with direct and indirect negative impact on human health, well being and livestock production
- Most zoonotic diseases in Africa originate from wild animals and or domestic animals reared under extensive/scavenging systems
- Africa has the least capacity for detection, identification and monitoring of infectious diseases
- Environmental concerns are rising due to livestock production, animal welfare issues and public health



The African Union (AU) Context

In 2008, the AU Commission for Science, Technology and Research developed a discussion document which advocated the realisation of an African Centre for Infectious Disease Surveillance (ACIDS) as a virtual centre based on:

- African networks of institutions involved in infectious diseases of humans, animals and plants
- International collaboration with WHO, FAO and OIE
- African smart partnerships with UK and other science centres



SACIDS Southern African Center for Infectious Diseases Surveillance

- **ONE HEALTH** consortium of southern African medical and veterinary, academic and research institutions involved with infectious diseases of humans and animals (progressively also plant health)
- in the Democratic Republic of Congo, Mozambique, South Africa, Zambia and Tanzania
- in smart partnership with Centres of science in industrialised countries
- This collaboration is further reinforced at the national level by forming national virtual centres for infectious diseases known as **National Centres for Infectious Disease Surveillance (NatCIDS)**.



The National Virtual Centres for Infectious Disease Surveillance (**NatCIDS**)

Democratic Republic of Congo National Consortium
Coordinating institution –
Faculty of Medicine Institute of
Public Health Kinshasa

Tanzanian National Consortium
Coordinating institution –
Muhimbili University of Health and
Allied Sciences, MUHAS, Dar es Salaam

Mozambique National Consortium
Coordinating institution –
Faculty of Veterinary Medicine,
Eduardo Mondlane University

Zambia National Consortium
Coordinating institution –
School of Veterinary Medicine,
University of Zambia.

South African Institutes in the SACIDS Consortium
Coordinating institution – OVI



SACIDS Smart Partner Institutions

- Royal Veterinary College, London university
- London School of Hygiene & Tropical Medicine
- London Centre for International Development
- International Livestock Research Institute (ILRI)
- Centre for Infectious Diseases, Edinburgh University
- Global Health and Security Initiative
- Global Health Corps
- Google.Org

(NB: Note that Google.org is both a donor and technical smart partner)



The driver for SACIDS consortium

- The optimal utilisation of the available resources, while respecting the separate roles of human and animal health sectors in disease surveillance and response.
- Its Secretariat is located at the Sokoine University of Agriculture, Morogoro, Tanzania.

Vision

A southern African society protected from devastating infectious diseases affecting the health of humans, animals (i.e. both terrestrial and aquatic), and plants (i.e. crop, forest and ornamental), thereby promoting livelihoods, socio-economic development including market access and the environment

Mission

To harness innovation in science and technology in order to improve southern Africa's capacity (including human, financial and physical) to detect, identify and monitor infectious diseases of humans, animals, (and progressively also plants) and their interactions in order to better manage the risk posed by them.

Philosophy

Working towards One Africa, One Health



At the Inaugural SACIDS Management Board meeting in Dar es Salaam 31st March 2009



The immediate activity targets for SACIDS

- Setting up the SACIDS Secretariat at **SUA**; extending membership in **SADC**; establishing governance; supporting access to some Google developed or sponsored tools. This is being supported through funding by Google.org. Google
- A pilot study on resource mapping and preparedness analysis across the human and animal health sectors in the Democratic Republic of Congo and Tanzania: Funding by **Rockefeller Foundation**



The immediate activity targets for SACIDS (cont'd)

- The Wellcome Trust has agreed to fund:
 - Enhanced Biosafety and Quality management environment in the SACIDS consortium laboratories;
 - Enhanced skills through taught and distance-learning courses (Virtual Graduate School);
 - Enhanced ICT support to learning;
 - Enhanced skills through research apprenticeships of PhD studentships and Postdoctoral fellowships.



Contribution SACIDS could make to the region's capacity for research and training *(among others.....)*

- SACIDS is unique and the first consortium that is designed as a One Health virtual institution linking infectious disease specialists from the human and animal health sectors.
- Two new One Health MSc programmes will be developed to international standard level.
 - MSc degree in Molecular Biology and Biotechnology (SUA)
 - MSc in Analytical Epidemiology (UNZA) -will seek to build on but not duplicate the programmes on applied or field epidemiology that are offered by FVM-Sokoine University, School of Medicine Muhimbili University, the NICD-Witwatersrand University and FVS-Pretoria University



Contribution SACIDS could make to the region's capacity for research and training *(among others.....) –cont'd*

- A set of Continuing Education Programme (CPD) short courses -coordinated by the SACIDS Secretariat at SUA and the University of Pretoria in South Africa
- 11 PhDs and 7 Postdoctoral Research Fellowships will be supported and tenured at academic and research institutions of the region
- Enhance capacity for Detection , Identification and Monitoring (DIM) of and response to infectious diseases



Challenges to implementation of One Health in Africa

- The need for key leadership to embrace the concept of One Health, to obtain buy-in from medical, veterinary, industrial, and environmental partners, and to execute a change program on a regional basis.
- Gross under-funding at national level-lack of resources to promote and further develop One Health.



Challenges to implementation of One Health in Africa -cont'd

- Differences in organizational cultures-Poor cooperation with Public Health Services-may lead to paucity of timely and reliable data for evidence-based advocacy, development of control strategies, resource allocation and investments
- Limited laboratory diagnostic capacity and surveillance systems
- Difficulty in changing the mindset of healthcare providers from one of "disease care" to one of preventive medicine



Recommendations for the success of One health- *(will require joint efforts in.....)*

- Integrated medical education-between human medical and veterinary schools and schools of public health
- Communication in journals, at conferences, and via allied health networks
- Better understanding of cross-species disease transmission through comparative medicine research



Recommendations for the success of One health- *(will require joint efforts in.....) –cont'd*

- Development and evaluation of new diagnostic methods, medicines and vaccines for the prevention and control of diseases across species and;
- Increased awareness among political leaders and the public sector through accurate media publications.

The image shows the top portion of a website for the Southern African Centre for Infectious Disease Surveillance (SACIDS). In the top left corner is the SACIDS logo, which features a map of Africa and the text 'SOUTHERN AFRICAN CENTRE FOR INFECTIOUS DISEASE SURVEILLANCE' and 'SACIDS'. To the right of the logo is the text 'SOUTHERN AFRICAN CENTRE FOR INFECTIOUS DISEASE SURVEILLANCE'. Further right is a search bar with the text 'Search' and 'People' 'Pages'. Below the search bar is a large photograph of two children, one laughing and one looking down. Overlaid on the left side of the photograph is the text 'One Africa One Health'. Below the photograph is a navigation menu with four items: 'Who we Are', 'What We Do', 'Where We Work', and 'How to Reach Us'. Below the navigation menu are two columns of text. The left column is titled 'VISION' and contains the text: 'A southern African society protected from devastating infectious diseases affecting the health of humans, animals (i.e. both terrestrial and aquatic), and plants (i.e. crop, forest and ornamental), thereby promoting livelihoods, socio-economic development including market access and the environment'. Below this is the 'MISSION' section: 'To harness innovation in science and technology in order to improve southern Africa's capacity (including human, financial and physical) to detect, identify and monitor infectious diseases of humans, animals, plants and their interactions in order to better manage the risk posed by them'. Below that is the 'PHILOSOPHY' section: 'To work towards One Africa, One health in the context of One World One Health vision.' The right column is titled 'OUR CONTACTS' and is currently empty.