



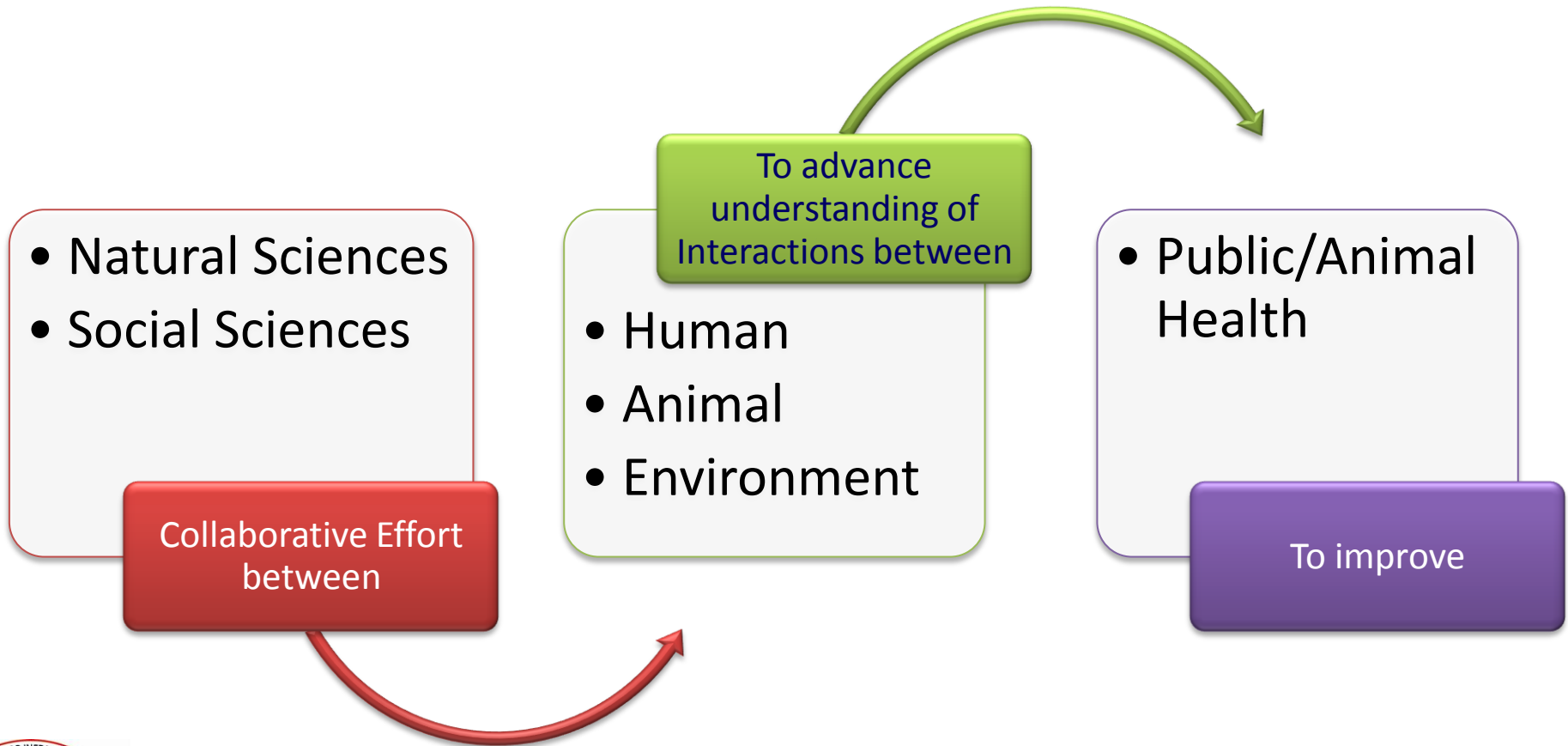
**SOUTHERN AFRICAN CENTRE  
FOR  
INFECTIOUS DISEASE SURVEILLANCE**

# **TOWARDS SACIDS as a REGIONAL ONE HEALTH FORUM & RESEARCH PLATFORM**

## **Key Achievements 2008 to May 2014**

*Mark Rweyemamu , Executive Director, SACIDS  
Sokoine University of Agriculture, Morogoro, Tanzania*

# THE SACIDS CONCEPTUAL FRAMEWORK IS A One Health Focus on Infectious Diseases:

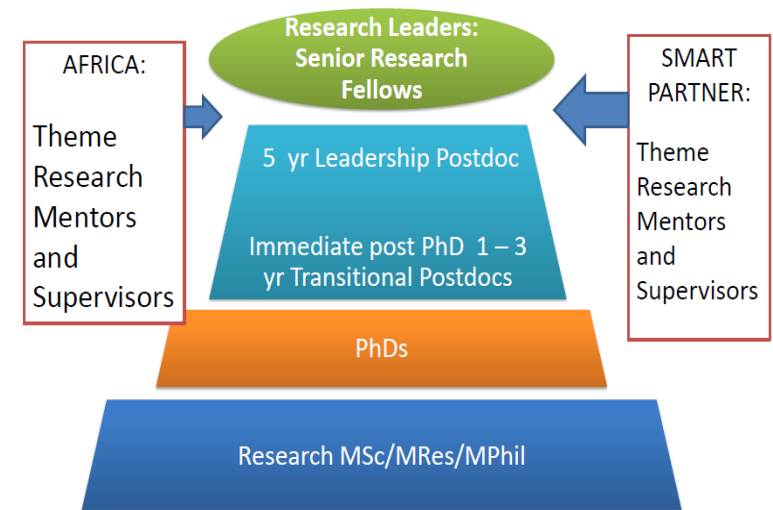


# SACIDS Theory of Change



- **Virtual Centre** concept as more cost effective than single physical centre for studying IDs in Africa
- **Theme-based Programmes** for a faster impact on capacity than isolated projects
- **Community of Practice** approach to enhance quality of supervision, mentorship and research collaboration across institutions, sectors, borders, projects and themes
- **Smart Partnership** with centres of research and training excellence in industrialised countries
- **NatCIDS** (National virtual centres for infectious diseases) to enhance influence at institutional and national levels

SACIDS Career Development through a Community of Practice

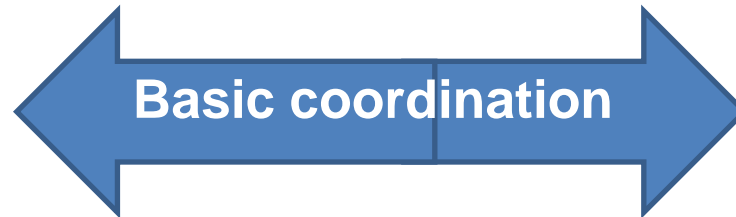


# SACIDS – Smart Partnership

- Collaboration



**SACIDS: coordinates the SOUTH**



**LIDC: coordinates the NORTH**



- Management

- Management Board
- SACIDS Executive Board
- Independent Scientific Advisory Board

# The 2014 – 2020 Programmatic Structure of the SACIDS

## RESEARCH & TRAINING Member Institutions

## SECRETARIAT & NatCIDS & SMART PARTNERSHIP

## RESEARCH & TRAINING Member Institutions

**TRAINING**  
(Paul Gwakisa)

**RESEARCH  
MANAGEMENT**  
(Filomena Namuba)

**FOOD SECURITY  
VIRAL DISEASES**  
(Christopher Kasanga)

**BACTERIAL ZOO NOSES**  
(incl AMR)  
(Mecky Matee)

**COORDINATION  
PLANNING  
M & E**

**EMERGING &  
VECTOR-BORNE  
DISEASES**  
(Janusz Paweska)

**COMMUNICATIONS,  
ADVOCACY & FORUM**

**ONE HEALTH SCIENCES**  
(Esron Karimuribo)





## Emerging and Vector-borne Diseases CoP progress review



# SACIDS

Sponsors

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google.org

IDRC



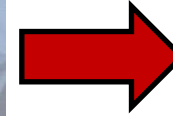
Foresight



# Key Achievement: Food Security Viral Diseases CoP



- FMDV serotypes and topotypes/genotypes in Southern Africa
- Novel FMDV genotypes/topotypes in Marromeu-Mozambique National Park buffalo
- Risk Modelling of FMD outbreaks in Zambia and Tanzania
- Two genetic lineages of *Peste des Petits Ruminants* (PPR)Virus in DRC and Tanzania (i.e. risk to southern Africa)
- Two lineages of African swine fever (ASF) Virus in Tanzania

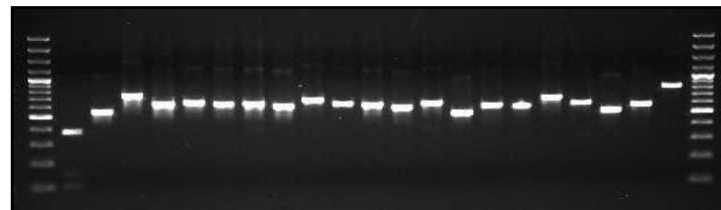
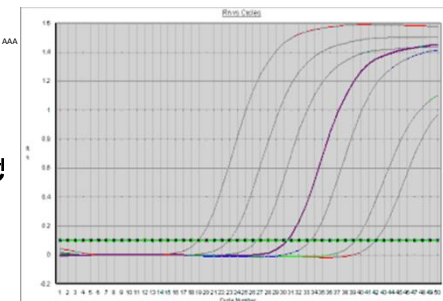
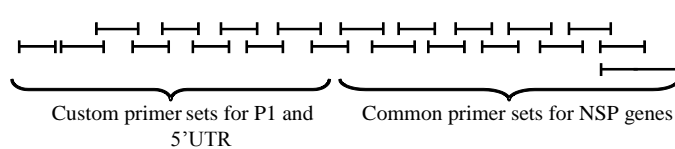


## Whole genome sequencing strategy

FMDV genome:



Overlapping RT-PCR strategy:



**SACIDS Molecular biology platform**



## Key Achievement: Bacterial Zoonoses CoP

- Novel topotype of *Mycobact bovis* at wildlife-livestock-human interface in Serengeti ecosystem
- First isolation and sequencing of *Yersinia pestis* in Zambia and Tanzania
- Prevalence of anti-microbial resistance rising in SACIDS countries
- **An engaging research platform with South Africa and UK**

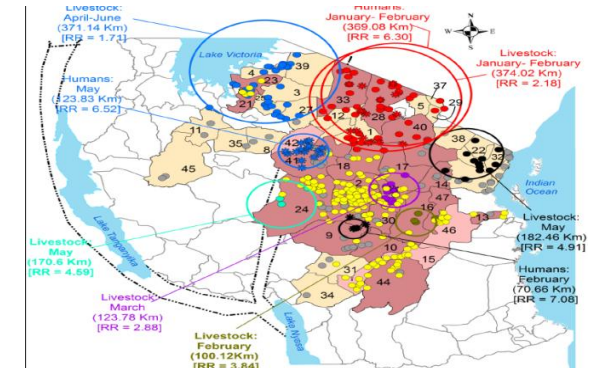


Genotyping Bovine Tb at Stellenbosch – Tanzania, Zambia and Zimbabwe young researchers with Prof Paul van Helden



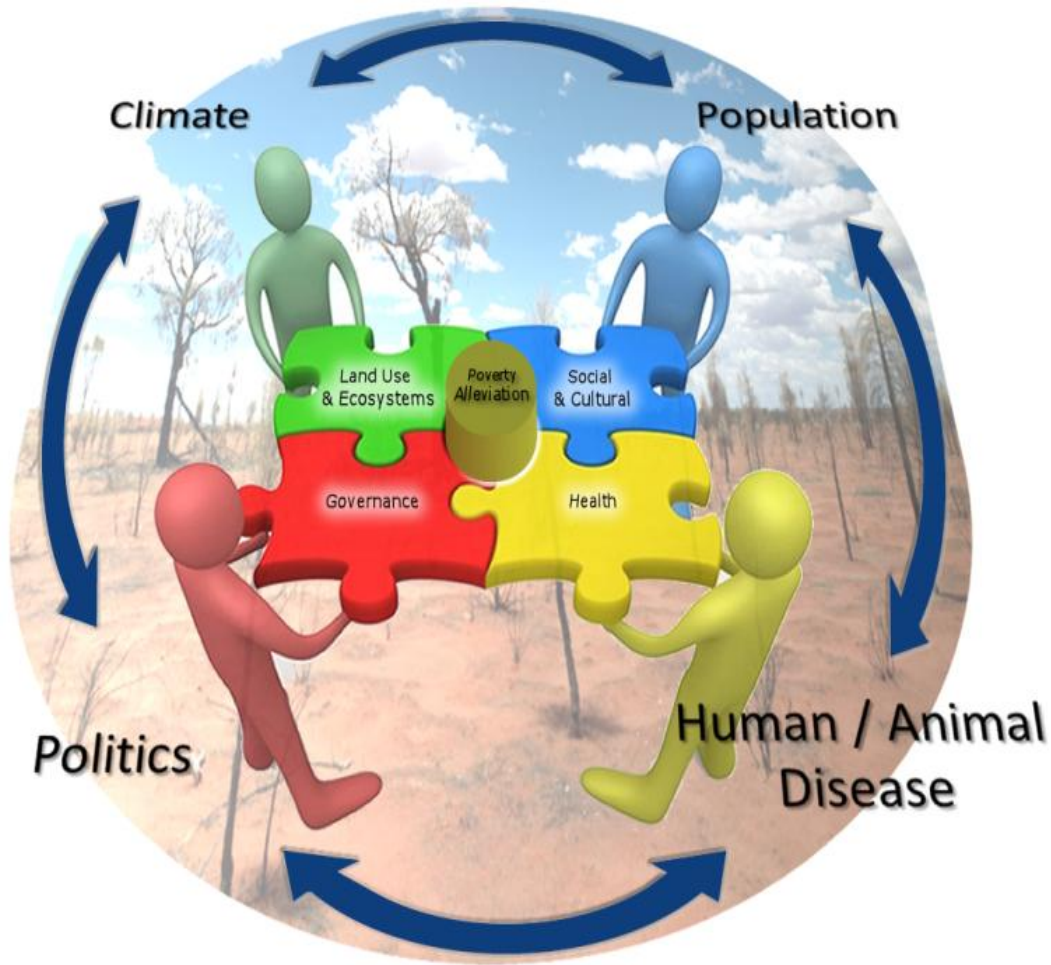
# Key achievement: Emerging & Vector-borne Diseases CoP

- Risk modelling Rift Valley fever outbreaks since 1930s
- Several risk factors identified (see Poster)
- Viral activity in Western Rift but no recent outbreaks in Tanzania, Mozambique and Zambia
- Ecology of Ebola/Marburg in DRC
- Diagnostics for Ebola/Marburg



A biosafety platform with BSL-3 facility in each participating country plus BSL-4 at NICD, South Africa

# SACIDS Ecohealth strategy



Assess the effects of economic, socio-cultural and environmental transformations on health

Explore different community-engagement approaches in protecting the ecosystems  
e.g. CR, IT tech

**SACIDS first venture into integrative research**

# PRODUCTION OF RADIO PROGRAMMES IN NGORONGORO



Interview with Mr. Miran from the Vet. Department in Ngorongoro District



Interview with Mama Ndoinyo in Ololosokwani



Interview with Mama Timani in Waso



Interview in Soitsambu



Interview in Arash



Interview with Mzee Daniel in Ololosokwani



SACIDS sponsored MSc. Student Mpoki Mwabukusi



The IDRC-funded Project team during live broadcast in the Loliondo FM studios

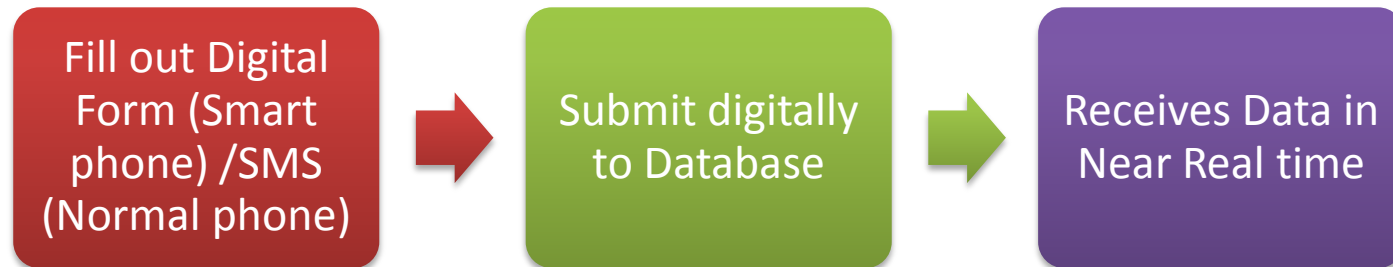


Loliondo FM's Radio Journalist, Joseph Munga interviewing the Team



# Mobile Technologies for OH Disease Surveillance

## ❑ Piloted system – Mobile technologies

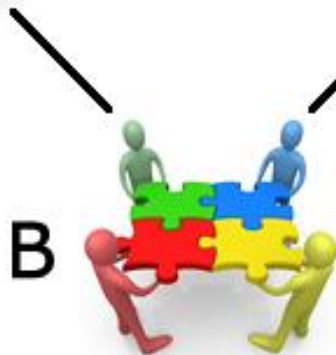
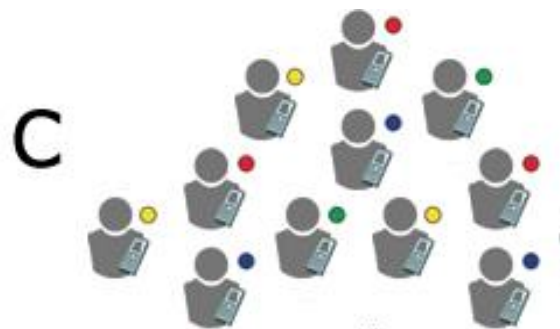


**Takes less than 3 minutes to reach the database**





# Participatory Planning, training, mobile Tech



C1



# Web-Interface



- Ngorongoro CHRs (Community Health Reporter) - Report on a skin disease

Administration ODK SMSCollect OfficeBox **epicollect** Go Logout

**OB**OX

Type To Filter

175 records found | Items per page 5 | Showing page 9 | Prev 1 2 3 4 5 6 7 8 9 10 Next

**Administration**  
New Form  
List Forms

**Account**  
Profile  
Change Password  
Contact Info

**Forms**  
COMMUNITY New  
CHRS LIST  
COMMUNITY Donwld

**Maps**  
COMMUNITY Show


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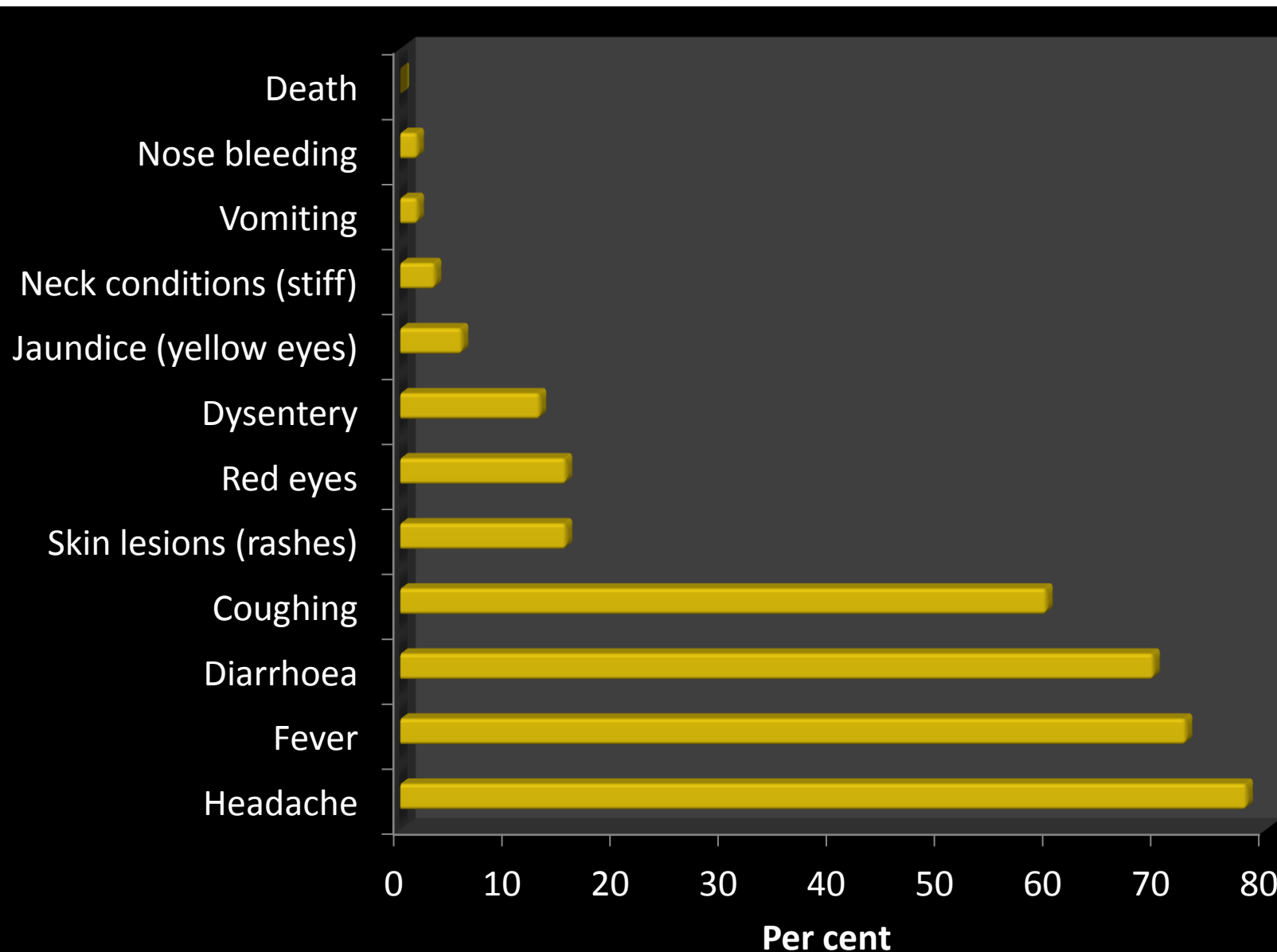
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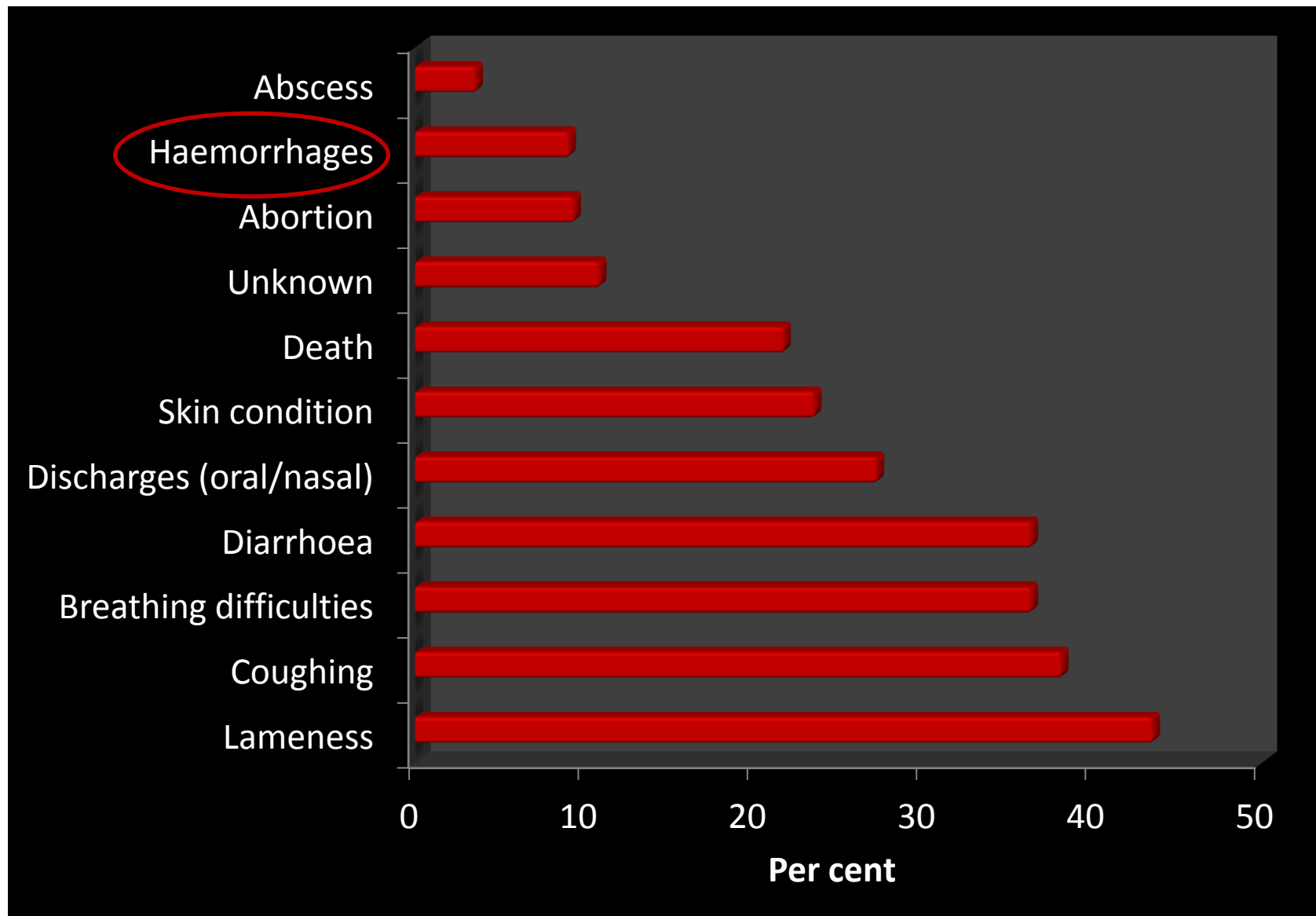
Kata  
Kjiji  
Dalili  
Dalili nyingine iliyoonekana  
Dalili kwa mnyama au binadamu  
Dalili kwa manyama  
Wanyama wafugwao walioathirika

: NGORONGORO  
: MISIGYO  
: [Ugonjwa wa](#) ngozi  
: 0  
: Binadamu  
: Null  
:

# Conditions reported by CHRs in Kagera River Basin (Humans)



## Conditions reported by CHRs in Kagera River Basin (Animals)

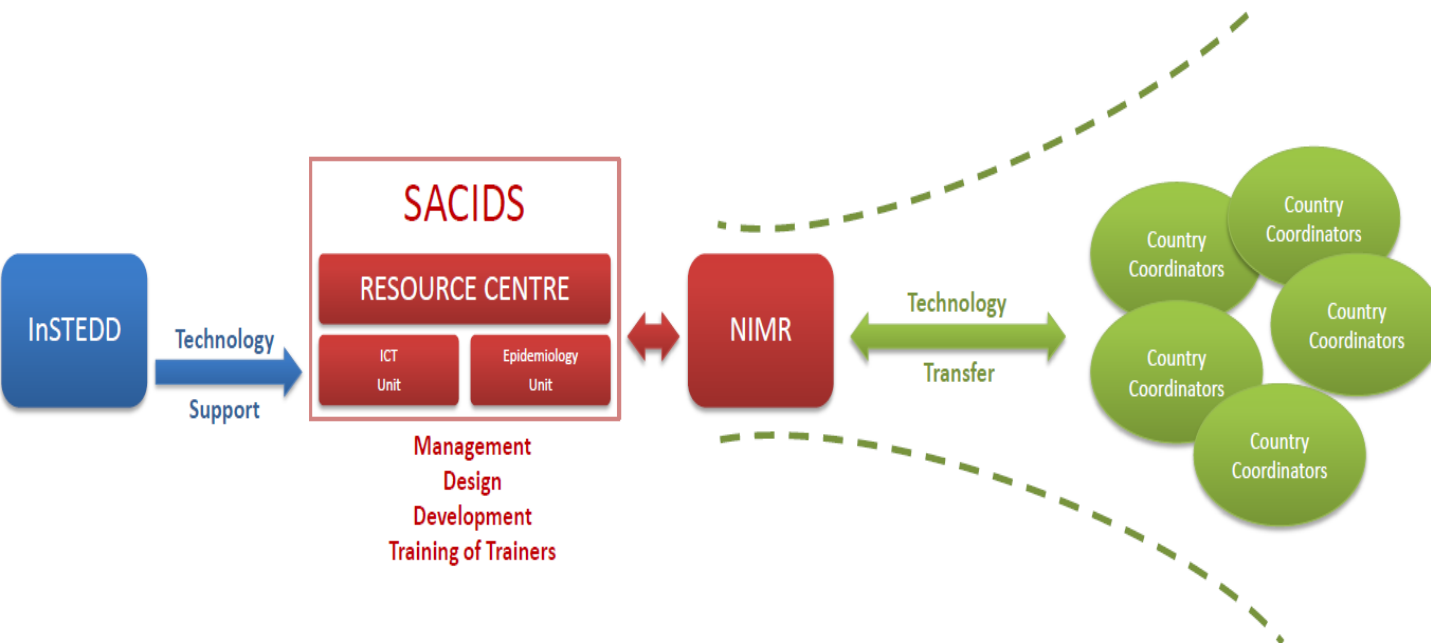




# Towards a SACIDS/CORDS

## One Health Disease Surveillance Support Platform

### Linked to MoH & MoL/MoA



# Our Training Achievements and Targets

## MSc Molecular Biology

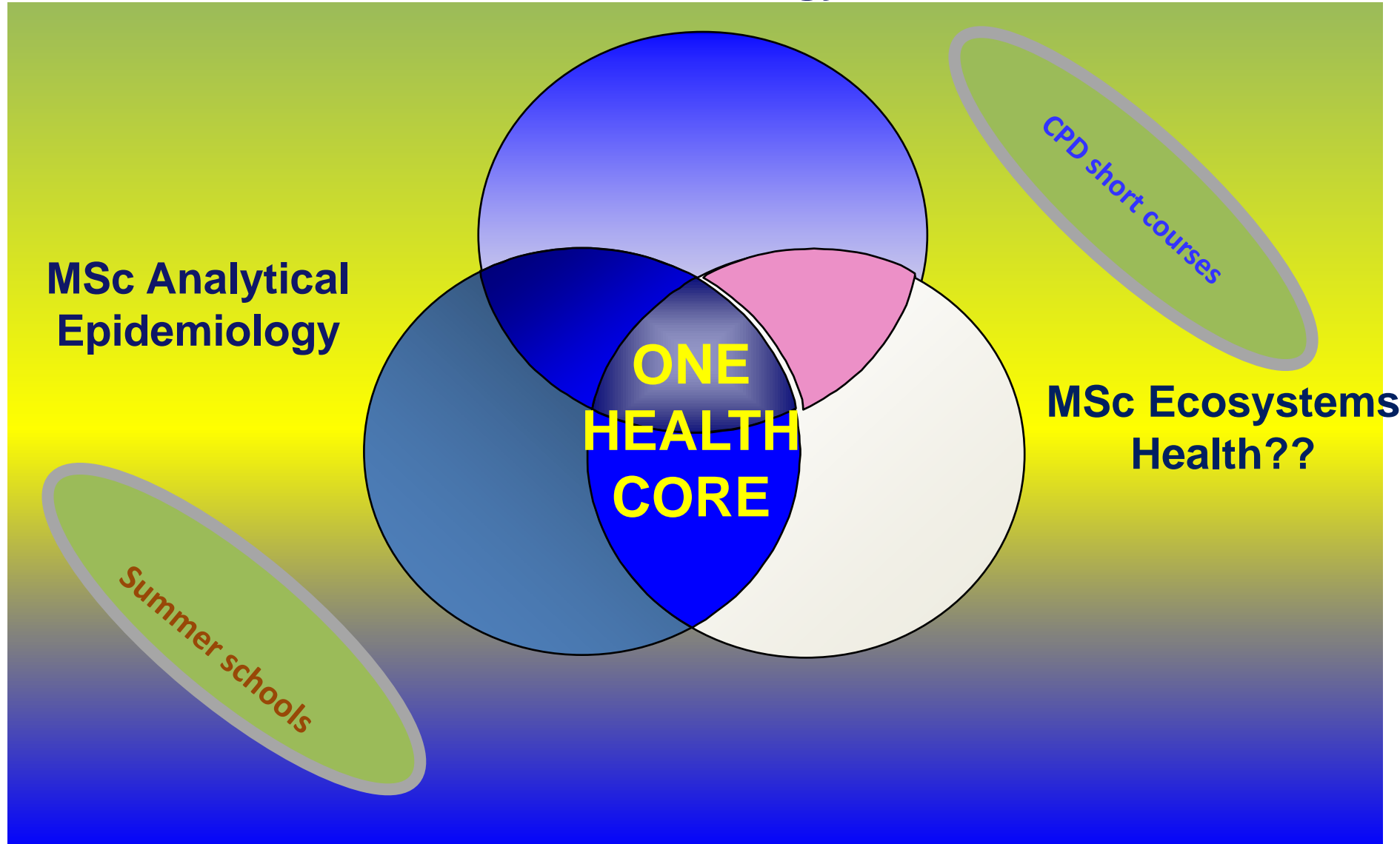
MSc Analytical  
Epidemiology

**ONE  
HEALTH  
CORE**

MSc Ecosystems  
Health??

CPD short courses

Summer schools



# One Health Training



## Annual Summer School

**Theme 2012:** ecology and drivers of infectious diseases

**Theme 2013:** One Health approaches for bacterial zoonoses, including food-borne and AMR

**Theme 2014:** Biosafety for OH work



## One Health Based MSc Programmes

UNIVERSITY	2010/11	2011/12	2012 /13	2013/14	TOTAL
<b>SUA</b>	<b>8</b>	<b>9</b>	<b>9</b>	<b>10</b>	<b>36</b>
<b>UNZA</b>	<b>-</b>	<b>6</b>	<b>12</b>	<b>9</b>	<b>27</b>
<b>TOTAL</b>	<b>8</b>	<b>15</b>	<b>21</b>	<b>19</b>	<b>63</b>
<b>RVC-SACIDS (Vet Epi)</b>			<b>10</b>		<b>10</b>

# Research Management, Institutional Change and OH Forum



- Postdoctorate and Res MSc/Mphil into regulatory frameworks
- Targeted Research Management and Leadership Training
- Developing Outcome Mapping based M&E
- Biennial OH Conferences in Africa
- Leveraged GBP2.168million to enhance the OH portfolio
- **Developed Strategic Plan2020**



**SACIDS Strategic Plan2020  
launched by Vice-President of  
Tanzania**



# Publications by SACIDS Research Apprentices



1. Published = 67
2. In-Press = 7
3. In Preparation = 40
4. Poster presentations = 14
5. Oral presentations = 74

# SACIDS

## Won Best Oral Presentations 2012 and 2014

2014, Entebbe



Katendi Changula, PhD, UNZA

2012, Accra



Christopher Kasanga, Postdoc, SUA



Working Towards One Africa, One Health  
[www.sacids.org](http://www.sacids.org) | [secretariat@sacids.org](mailto:secretariat@sacids.org) | +255 732 931 717

# Thank you!!

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