

Connecting Organisations for Regional Disease Surveillance

July 2022

Welcome....

to our July 2022 latest news update. CORDS is a program of Ending Pandemics, comprised of six regional networks:

APEIR - <u>the Asia Partnership on Emerging Infectious Disease Research</u>
EAIDSNet - <u>the East African Integrated Disease Surveillance Network</u>
MBDS - <u>the Mekong Basin Disease Surveillance Foundation</u> (under maintenance)
MECIDS - <u>the Middle East Consortium on Infectious Disease Surveillance</u>
SACIDS - <u>SACIDS Foundation for One Health</u>
SECID - <u>the South East European Center for Surveillance and Control of Infectious Diseases</u> (under maintenance)

The CORDS networks work to to reduce and prevent the spread of diseases by exchanging information and best practice. Our vision is a world united against infectious diseases. Early detection of outbreaks helps keep disease transmission to its area of origin, which, in our increasingly mobile world, is vital to stopping life threatening diseases such as COVID-19, Zika, Ebola and Yellow Fever. The collective expertise of the CORDS networks and their close relationships with local communities facilitates timely detection and response to outbreaks.

Preparing for the Next Pandemic in Africa

The Need for Developing Capability in Africa to Distinguish Hypothesis Research from the 3 P's: Product-Policy-Practice.

by Mark M. Rweyemamu BVSC, PhD, FRCVS, Executive Director, SACIDS Foundation for One Health, Sokoine University of Agriculture, Tanzania <u>Mark.rweyemamu@sacids.org</u>

secretariat@sacids.org

Introduction

The Ending Pandemics Salzburg Global Seminar on Metrics for One Health Surveillance **CALL FOR ACTION** states: "Preparedness for Epidemics of infectious diseases in animals and humans must be recognized as a public good necessary for global action". This seminar was held in November 2019, just before the international reporting of the COVID-19 outbreak in Wuhan, China (December 2019) and before the local outbreak evolved into a global pandemic in 2020. The timing of the Seminar was propitious, at least for participants, who were to deal with the COVID-19 pandemic.

By all account, the **COVID-19 Pandemic** has been the most widely spread pandemic ever, as it has extended to all continents, wherever people have settled, within 2 years of its first report. It has been estimated, by the Institute of Health Metrics and Evaluation (IHME), University of Washington, Seattle, that by April 2022 (i.e., 2 years and 3 months from first report) 6.7million people had died globally due to (or

CORDS July 2022 Newsletter

related to) the COVID-19 pandemic. The same analysis reported that within the first 100 days of the epidemic the number of human deaths associated with the COVID epidemic had been 106,581 deaths. With hindsight, the inference must be that if it had been possible to contain the COVID-19 epidemic during the initial 3 months, there might have been a potential for saving lives (ie up to 98%) between April 2020 and April 2022, if only the capacity and capability for early detection and early response with appropriate technologies, tools, remedies and societal readiness had been available and in place at point of need at the beginning of 2020. This is a fundamental reality of concern as we reflect on **Preparing for the Next Pandemic**. The IMF has estimated the financial cost of a scenario similar to that by the University of Washington and concluded that the cost to responding to the COVID-19 Pandemic up to April 2022 was about **USD\$13.8 trillion** against an estimated cost of **USD\$150 billion** to **prevent pandemics** over 5 years! As we take lessons and prepare for the next pandemic, there needs to be some consideration between local and global initiatives all operating in a synergistic and **smart partnerships** across all relevant sectors, whether official (i.e., governments and inter-governmental agencies), private enterprise, academia and/or research, or civil society.

Preparing for the Next Epidemic in Africa

At the global level the Tripartite (FAO, WOAH, WHO) and UNEP are individually and collectively leading reflections on innovations to target early warning, including needs-based equity in vaccine access as well as the requirements of governments and civil societies in developing countries. Meanwhile burning issues such as health for all, food security, climate change and societal equity continue. The definition of One Health as provided by the Global Tripartite and UNEP, is:

"One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems. It recognizes the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and interdependent." The full definition can be found here: <u>https://www.fao.org/3/cb7869en/cb7869en.pdf</u>

Vaccines and Vaccination

Specific COVID-19 vaccine was developed, produced and licenced for public use at supersonic speed. The first person to be vaccinated with the new technology vaccine, as part of a national vaccination campaign was on 8 December 2020, i.e., **9 months** after the WHO declared the COVID-19 outbreak as a pandemic on 11 March 2020. A key factor was that prior to the epidemic, there had been good investment in R&D and production/manufacturing chain i.e., discovery research, process development, manufacturing capacity, clinical trial systems and distribution chain. Nevertheless, the world was not prepared for such a global pandemic to flare up within such a short time, demanding concurrent global public vaccination such that the needs of the economic North would not clash with those of the economic South. As part of its commitment for vaccination in developing countries, the Bill and Melinda Gates Foundation supported a vaccine manufacturing enterprise in India to produce COVID-19 vaccine in India for developing countries. But the global demand was much too huge. In his recent book, Bill Gates, the co-Chair of the Bill and Melinda Gates Foundation, is advocating a Global Partnership for financing entities in the economic South to enable them to produce vaccines (or key components in the vaccine manufacturing chain) to ensure availability of adequate and high-quality vaccines in developing countries.

Detection, Identification and Response

A primary pre-requisite for effective risk management and elimination of epidemics is early warning, early detection, and identification of disease and/or pathogen **at source** before it blows into a pandemic. The phrase "at source" can be geographically, in areas of endemic infection or biologically, for example from animals to people or in some individuals with mild or asymptomatic infection to a susceptible population, where infection can cause a severe epidemic.

As major epidemics/pandemics are relatively rare in regions of the economic north, these countries/regions have developed capability for early warning and early detection e.g., the USCDC or equivalent organizations. The Global Tripartite individually and together have developed authoritative systems for receiving reports from Member Countries, monitoring and tracking epidemic events and early warning. Collectively, they set up a Joint Centre for One Health and Food Safety and have a shared early warning system referred to, the Global Early Warning System (GLEWS). These and new systems are

being reinforced through extra-budgetary funding sources by governments and philanthropy.

The 3 agencies have own response systems (such as GOARN of WHO and ECTAD of FAO) and also do organize joint responses, in the case of emergencies due to zoonotic diseases. In his recent book, Bill Gates has advocated a new initiative for creating a "Pandemic Prevention Team", which he has referred to as GERM (Global Epidemic Response and Mobilization). He proposes that GERM would be managed by WHO and would need about 3,000 full-time employees with diverse expertise, including epidemiology, genetics, vaccine development, data systems, computer modeling, logistics etc at an estimated running cost of \$1billion per annum.

Whatever new initiatives emerge, at the global level, there is clearly a case for early detection, surveillance and response systems that emphasize effective action at the community, national and regional levels, especially in the economic south and particularly in Tropical Africa. Communities need to be engaged as part of the solution for the risk management of epidemics of humans and animals.

In his recent advocacy for **Preventing the Next Pandemic** (Stanford Social Innovation Review, 2022), Mark Smolinski, the President of Ending Pandemics, has advocated 5 actions to advance the concept of early warning and early detection at source, namely (i) Engaging directly with the public, through the participatory surveillance approach; (ii) Deploying a One Health approach; (iii) Expanding epidemic intelligence; (iv) Collaboration with neighboring countries; and (v) Measuring progress, through timeliness metrics. He has also explained the value of an economic-south based international surveillance network of networks, Connecting Organizations for Regional Disease Surveillance (CORDS), sharing experiences from Southeast Asia, South Asia, West Asia, Southeast Europe, Eastern and Southern Africa. The CORDS networks share a vision of strengthening community-based disease surveillance, event-based and participatory surveillance.

An example is the *AfyaData* One Health surveillance tool developed by SACIDS scientists and software engineers with collaboration from epidemiologists and public or animal health officials to aid One Health surveillance from community to national level. This is a tool whose specifications were defined through a 4-day EpiHack user-challenge dialogue to define specifications <u>https://www.sua.ac.tz/news/afyadata-bill-gatess-heroes-field</u>

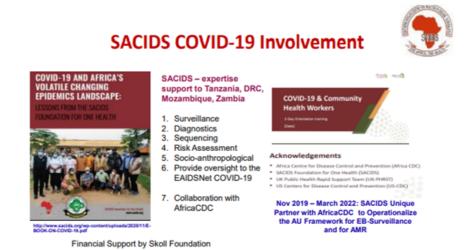
African Preparedness for Epidemics

A strand of the ground-breaking UK Foresight Study '<u>Infectious Diseases :Preparing for the Future'</u>, 2004-2006, was uniquely devoted to <u>Africa</u>. Thirty African scientists (ten representing human, animal and plant diseases) convened in Entebbe, Uganda in 2005 and observed that the continental coordination for Public Health in Africa was only through the WHO Regional Office. As a result, the Africa CDC was established as an agency of the African Union. The agency has led the promotion and coordination of the African response to the COVID-19 pandemic.

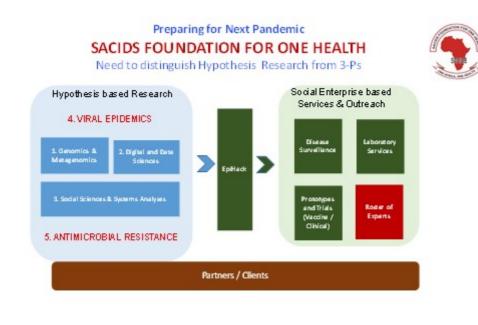
The Genesis of SACIDS Foundation for One Health (SACIDS)

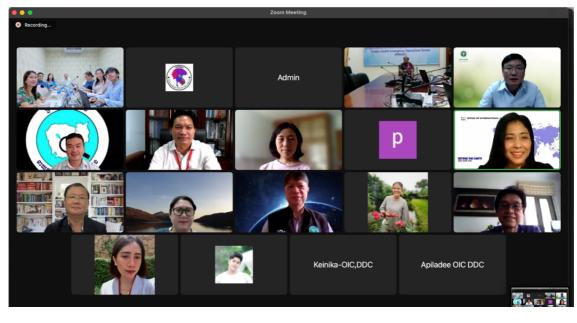
Conceptually, SACIDS emanated from the UK Foresight Study, and the Bellagio convening by the Rockefeller Foundation, NTI and Skoll Global Threats Fund in 2007, resulting in CORDS as a network of regional networks. SACIDS was officially established in 2008 as a regional 'virtual centre' by academic and national research institutions dealing with human and animal infectious diseases in East and Southern Africa. The aim was to enhance Africa's capacity for detection and identification of infectious diseases with a view to risk management. Their work has been possible thanks to philanthropic agencies (including the Rockefeller Foundation, Google, IDRC-Canada, Wellcome Trust, Skoll Foundation and TIDES) and since 2016 the Tanzanian and Zambian Governments. The success of the foundation has resulted in the University of Zambia and Sokoine University, Tanzania, being designated by the World Bank as Africa Centres of Excellence for Infectious Diseases of Humans and Animals. As of January 2022, SACIDS development programs had resulted in 21 Postdoctoral Research Fellows, 61 PhD's, 101 MSc awards and 400 publications in peer reviewed journals.

As a regional centre of excellence it is SACIDS intention, resource permitting, to develop the two strands of research and service provision, through an EpiHack user challenge approach. The network will build on its experience with digital tools to support disease surveillance, its approach to developing affordable genomics and the demand for expert services.



The key lessons for SACIDS are: (i) the absolute necessity to have capability *in situ* in Africa for early detection, identification and provision of context specific One Health expert support to communities, national and regional authorities; (ii) the need to remodel SACIDS to transform into both (a) ability to undertake quality **hypothesis-based** research and (b) **implementation** research to support national authorities and Communities in the 3-Ps (Products-Policy-Practices).





MBDS Country Coordinators Meeting

The Ministry of Public Health Thailand, Chair of the Executive Board and Country Coordinator for the Mekong Basin Disease Surveillance Foundation (MBDS) in conjunction with the Secretariat organized a Country Coordinators meeting on 7 June 2022. The MBDS Executive Board, Country Coordinators and health officials from the Mekong countries and MBDS Secretariat all participated.

During the meeting member countries presented on and discussed the current COVID-19 situation, including management, the vaccination roll-out and the release of travel restrictions. Other public health threats discussed included the national and global situation with Monkeypox, covering both management and preparedness as well as the impact of health security on social economic structure. Representatives from the network shared their experiences of a whole government approach, multi-sectoral coordination and community engagement issues.

The MBDS website www.mbdsnet.org is under maintenance.



MECIDS launches new website

The Middle East Consortium on Infectious Disease Surveillance (<u>MECIDS</u>), a CORDS network member, with support from Ending Pandemics has managed to restructure, redesign, and update its website. MECIDS Executive Officer, Sari Husseini, based at Search for Common Ground in Jerusalem, worked with Synthx, a design and branding company from Amman, Jordan to produce the new 'face' of the network.

Sari worked in partnership with the Jordanian Royal Scientific Society to devise and deliver the project from planning to launch. The new website is user friendly and has easy access to all of MECIDS past and present activities. In the multimedia section of the website, you can review some of MECIDS latest webinars on COVID-19 as well as other videos related to the pandemic. For any questions on the website or MECIDS contact:

Shusseini@sfcg.org

Visit the new website here: www.mecidsnetwork.org



SECID continues Pandemic Preparedness Project

As part of the lessons learnt from the current SARS CoV2 pandemic, many countries are in the process of understanding where their gaps are and developing revised pandemic preparedness plans to support broader respiratory preparedness capacity building. CORDS member network the Southeast European Center for Surveillance and Control of Infectious Diseases (SECID), is working to conduct workshops to help countries with this process in collaboration with CDC, USA and WHO representatives.

The project is divided into three parts:

CORDS July 2022 Newsletter

- 1. A Workshop on 'Pandemic Preparedness Planning' held on 8 February 2022, hosted by SECID and the South-Eastern Europe Health Network (SEEHN), facilitated by Dr Silvia Bino, SECID and Dr. Ann Moen, CDC, USA. The meeting enabled participants to review their emergency response activities whilst utilizing any existing pandemic plans. Participants were epidemiologists, surveillance and laboratory professionals, Ministry of Health personnel, emergency response specialists, immunization specialists and communication professionals from the project partners.
- 2. A self-conducted SWOT analysis by a multi-disciplinary team in each country to determine what worked well, what issues arose and to develop plans and capacities for adjustments required for future responses.
- 3. A final meeting took place 12-13 July 2022, in Bulgaria, where participants shared their experiences to build a common knowledge base for the Balkan region countries. The activity was organized by SECID with the support of CDC, USA and WHO.

For more information about this issue and other work visit <u>www.secids.com</u> (undergoing maintenance)



InSTEDD iLab Cambodia, wins one of inaugural WHO Western Pacific Innovation Challenge prizes

The Cambodia 115 health hotline is run by the Ministry of Health in partnership with <u>InSTEDD iLab</u> <u>Southeast Asia</u>*; Cambodia, a member of the Mekong Basin Disease Foundation (MBDS), a CORDS network. The hotline has been recognised as one of 29 winners** from more than 400 entries in the inaugural 'WHO Western Pacific Innovation Challenge: Innovation for the Future of Public Health.' The challenge aimed to unite innovators who understood the health needs of the Western Pacific, and could provide sustainable, economical, and inclusive solutions. The winners were able to showcase their systems at the 2022 Western Pacific Innovation Forum: Scaling for Impact in April.

Cambodia's 115 health hotline*** is a system tool that aims to improve disease detection, expedite response times to illnesses, and inform the population about possible threats. It allows the general public to easily make a call via mobile phone and report an outbreak signal or obtain information posted by the Communicable Disease Control Department of the Ministry of Health Cambodia.

At the same time, health workers can simply dial the toll-free hotline to provide the weekly infectious disease report. The hotline provides a mechanism to improve the timeliness and reduces operational cost of data collection from all health centres nationwide. The hotline was credited for identifying 90% of the early COVID-19 cases in the country and was the principal means of providing timely information to the public. Once enhanced to enable contact tracing, the hotline sent contact tracing automatic calls to over a million contacts during COVID-19. (case study here)

*Supported by <u>Ending Pandemics</u>. **<u>https://www.who.int/westernpacific/news/item/25-04-2022-who-announces-winners-of-inaugural-western-pacific-innovation-challenge</u>

***Taken from WHO online: <u>https://www.who.int/westernpacific/initiatives/innovation-for-health-impact/innovation-challenge/instedd</u>



Copyright © CORDS 2022, All rights reserved.

CORDS

Ending Pandemics 870 Market Street, Suite 528 San Francisco, CA, 94102

Want to change how you receive these emails? You can **<u>update your preferences</u>** or **<u>unsubscribe from this list</u>**