GHSA R&D Task Force to assess and strengthen medical countermeasure R&D capacities

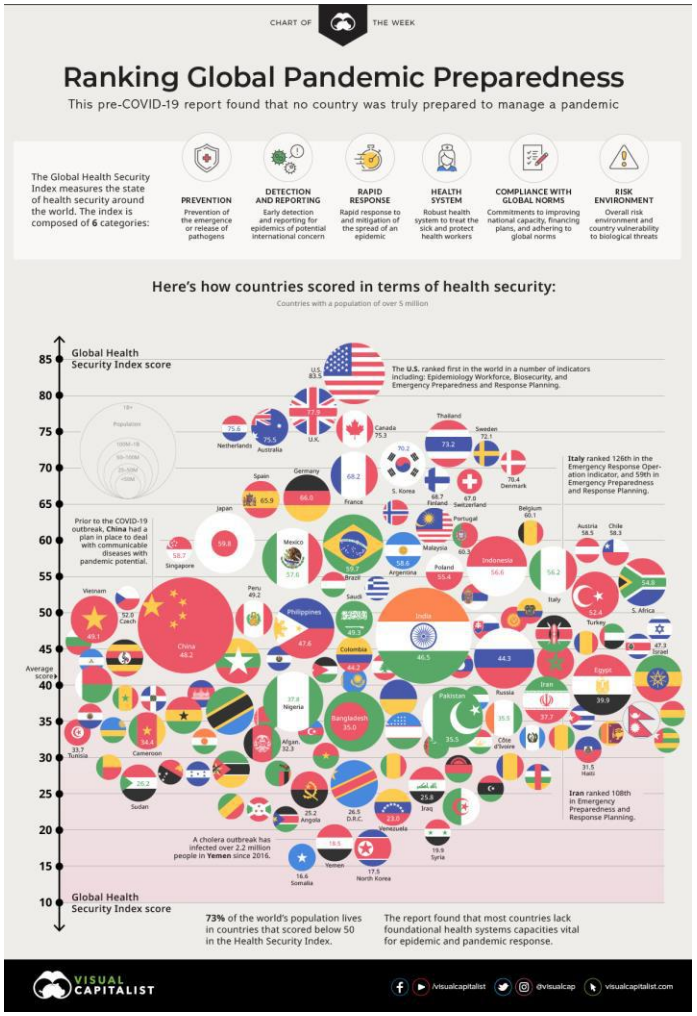
Presented by: Jamie Bay Nishi, Director, Global Health Technologies Coalition (GHTC)

With support from: Philip Kenol, Multilateral Officer, GHTC & Julien Rashid, Associate, GHTC

November 2021

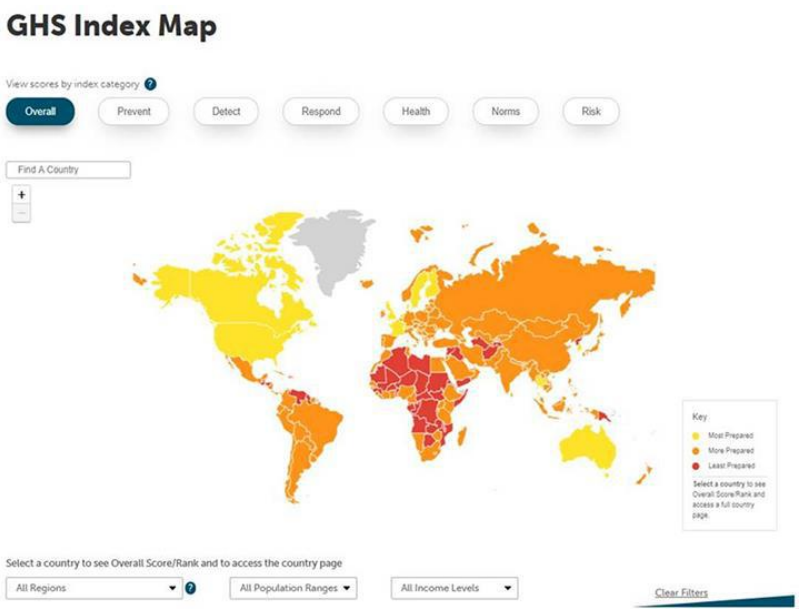
Photo: National Institute of Allergy and Infectious Diseases, National Institutes of Health

R&D: A critically overlooked element of health preparedness



COVID-19 forced us all to consider that we did not have the necessary tools when we needed them.

How do we push for global collaboration to end the COVID-19 pandemic while simultaneously preparing for the next one?

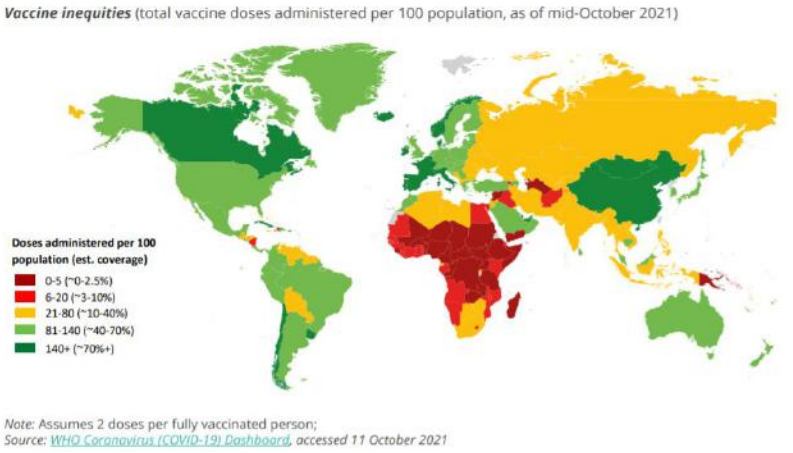


Why is R&D capacity-building relevant to GHSA member states?

Not every country needs the full suite of R&D capacities, but every country needs a pathway to get the tools it needs when it needs them.

- When COVID-19 struck, countries were caught in a race to access PPE, oxygen therapies, treatments, and diagnostics.
- We need to address the health inequities we have seen with the global COVID-19 response.
- A handful of countries cannot maintain R&D readiness for the medical countermeasure requirements of the world.
- The GHSA R&D Task Force will inform R&D capacity-strengthening investments by international financial institutions, including potentially the newly proposed Financial Intermediary Fund, while aligning with Global Preparedness Monitoring Board recommendations.

Fig.1.1. Inequities in access to vaccines and tests



R&D Task Force: Initial workstreams

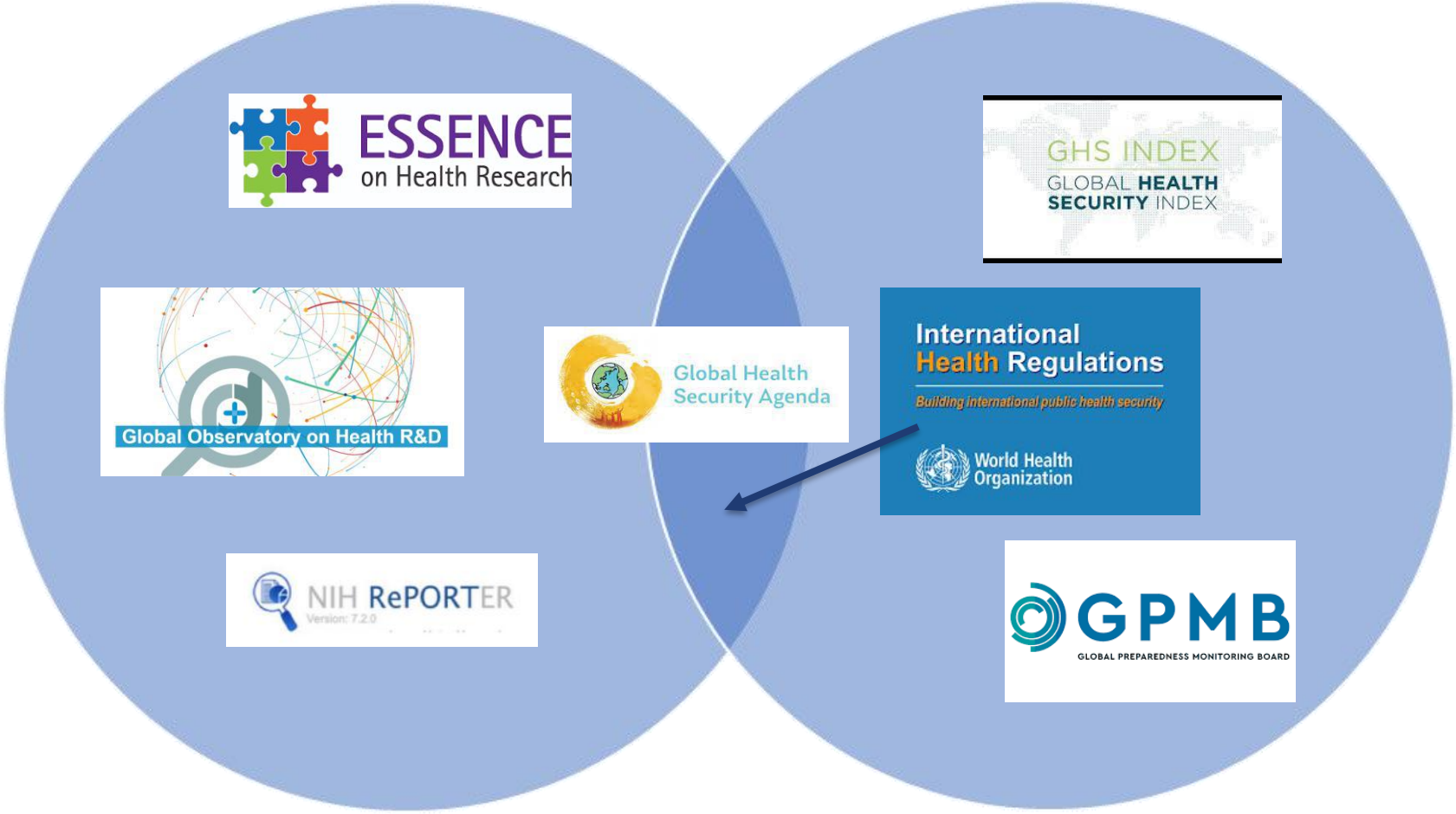
The GHSA R&D Task Force will help countries better assess, prioritize, and plan for strengthening their R&D capacities. Some potential priority focus areas during the pilot year for the R&D Task Force include:

Define scope of R&D for GHSA and link to GHSA 2024 Targets (e.g. preclinical research through manufacturing).

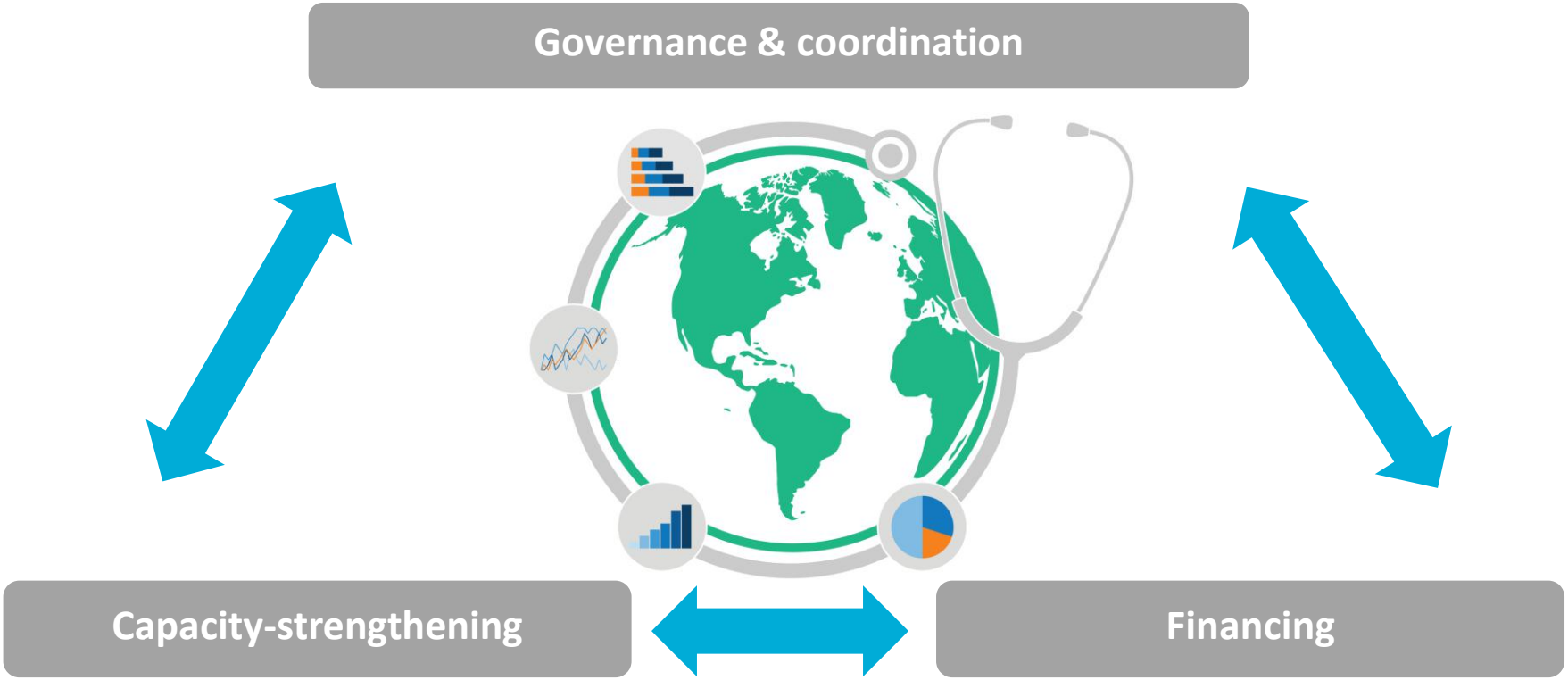
Integrate R&D capacity metrics. The WHO- and World Bank-led ESSENCE Working Group has created baseline metrics for measuring R&D capacity, but this data has not yet been incorporated into any global health security or preparedness frameworks. The GHSA R&D Task Force will develop a tool, with indicators and metrics, for measuring country R&D capacities and regional gaps in strategic priority areas.

Develop a road map to inform and align sustainable financing mechanisms, particularly through international financial institutions, to GHSA R&D capacity-strengthening initiatives.

Metrics are the first step to assessing and identifying gaps in R&D as an element of health preparedness



Breaking down silos and connecting dots



Strengthening the global R&D ecosystem for health preparedness

Next Steps:

- Complete a review of country R&D capacity metrics.
- Consult with GHSA members on combining the most salient metrics to create an optional tool for countries to assess R&D as a component of health preparedness.
- Use GHSA as a platform for countries to articulate specific capacity gaps.
- Present investment gaps through GHSA to a new Financial Intermediary Fund or other global financing mechanisms.

What does success look like?

Every country has a pathway to access the tools it needs when it needs them, and every region has ample medical countermeasure R&D capacities with ongoing utilization to tackle both emerging and enduring health threats.

University of Pittsburgh

Best Practices & Lessons Learned Building Health Research Capacity in Africa

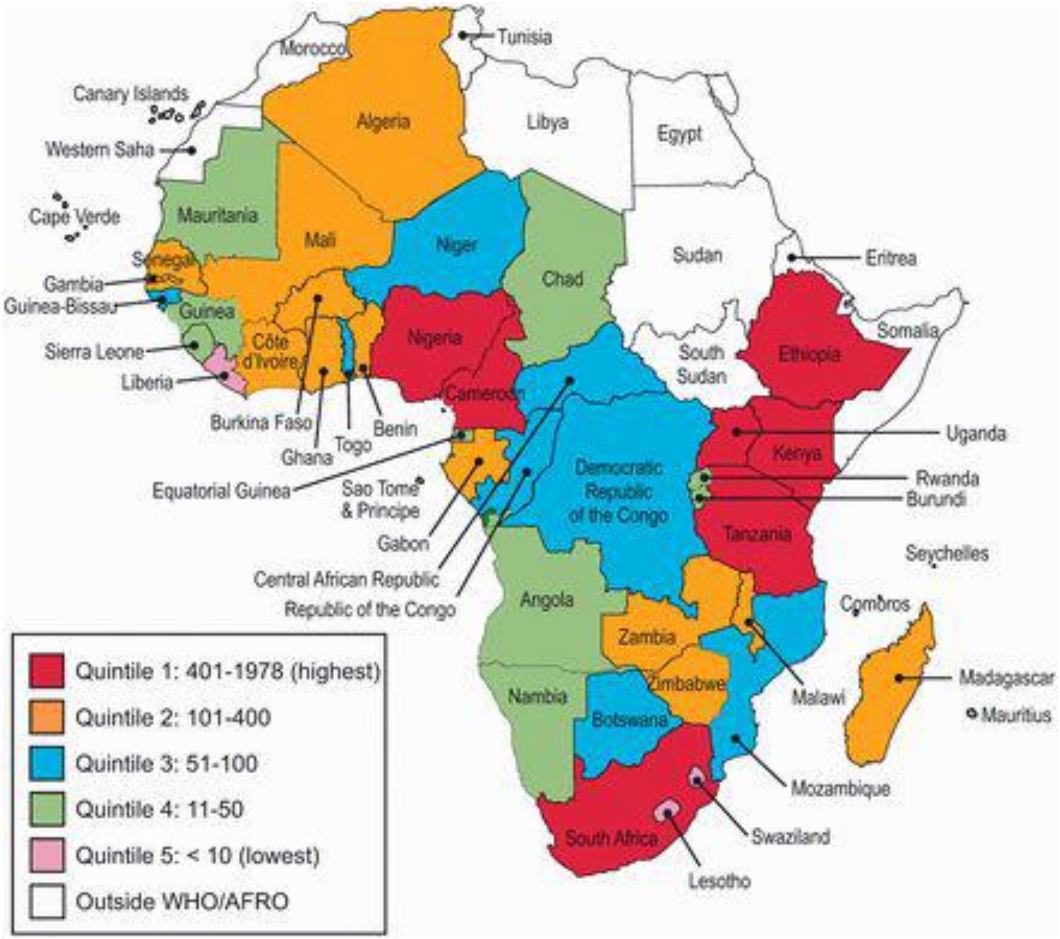
Jean B. Nachega, MD, PhD, MPH, FRCP, FAAS
Associate Professor,
Department of Epidemiology, Infectious Diseases & Microbiology
Graduate School of Public Health
University of Pittsburgh, Pittsburgh, PA, USA
JBN16@PITT.EDU

Adjunct Associate Professor of Epidemiology and International Health
Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA
JNACHEGA@JHSPH.EDU

Professor of Medicine
Department of Medicine
Stellenbosch University, Cape Town, South Africa
jnachega@sun.ac.za

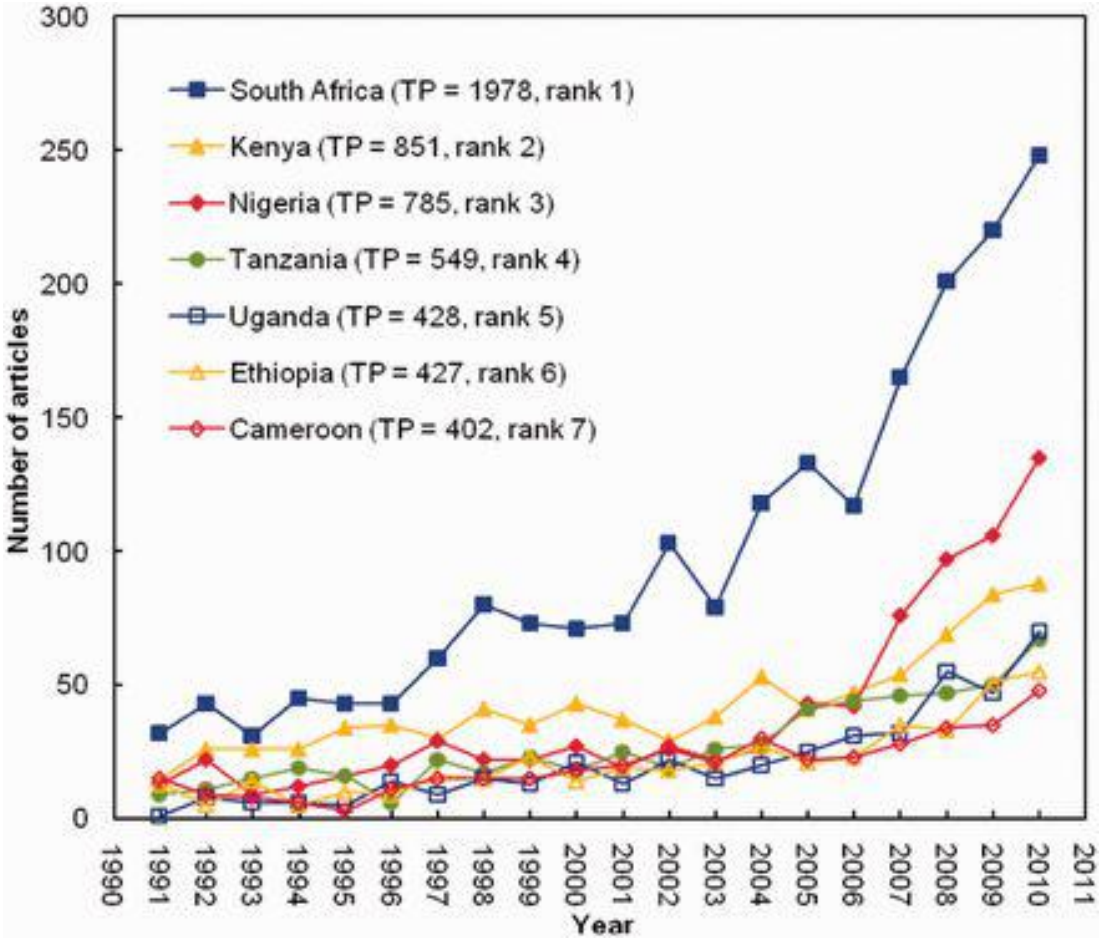
ESSENCE Meeting
Nov 2, 2021

Map representing WHO/AFRO public health and epidemiology publications indexed by SCI (1991–2010)



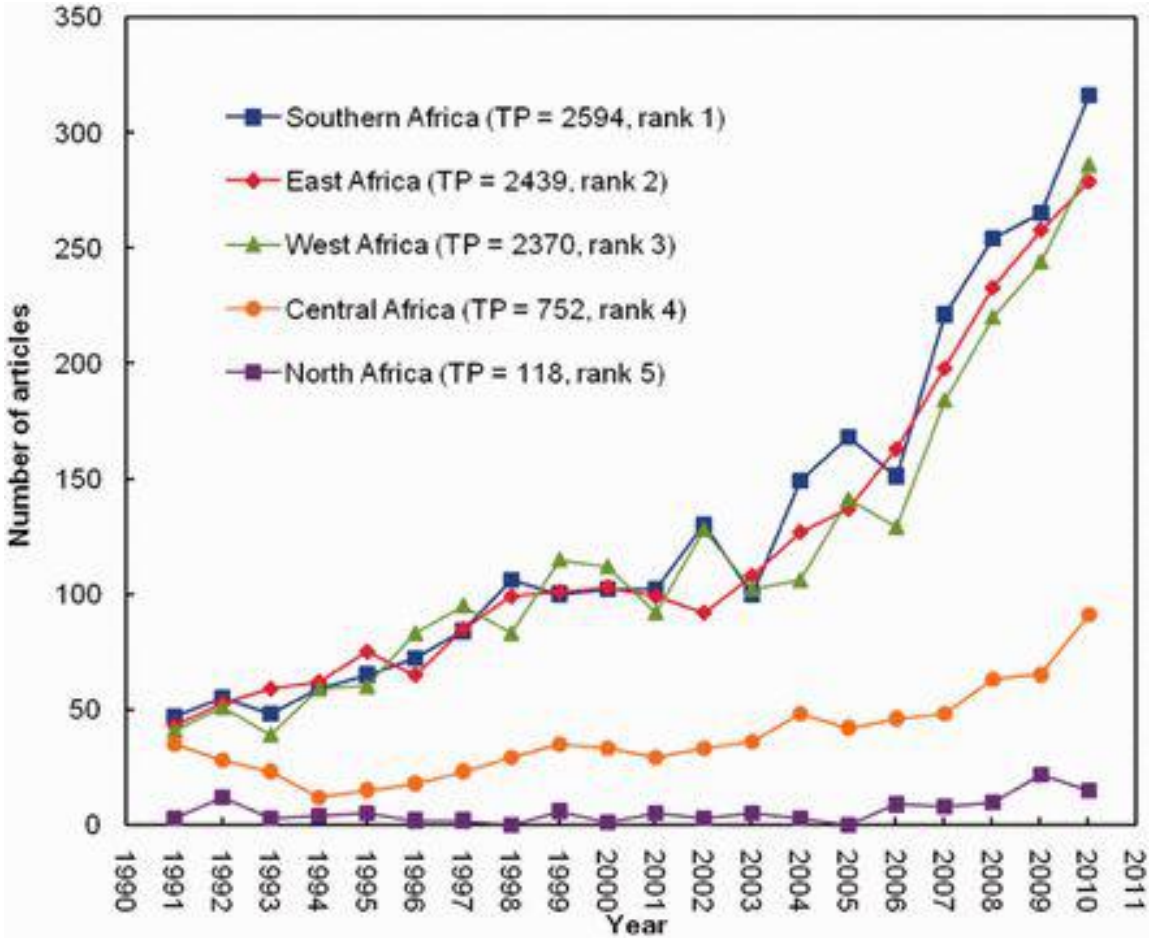
Nachega et al. Int J Epidemiol, Volume 41, Issue 6, December 2012, Pages 1829–1846, https://doi.org/10.1093/ije/dys189

Top seven countries (highest quintile) and trends in epidemiology and public health articles output indexed by SCI (1991–2010).



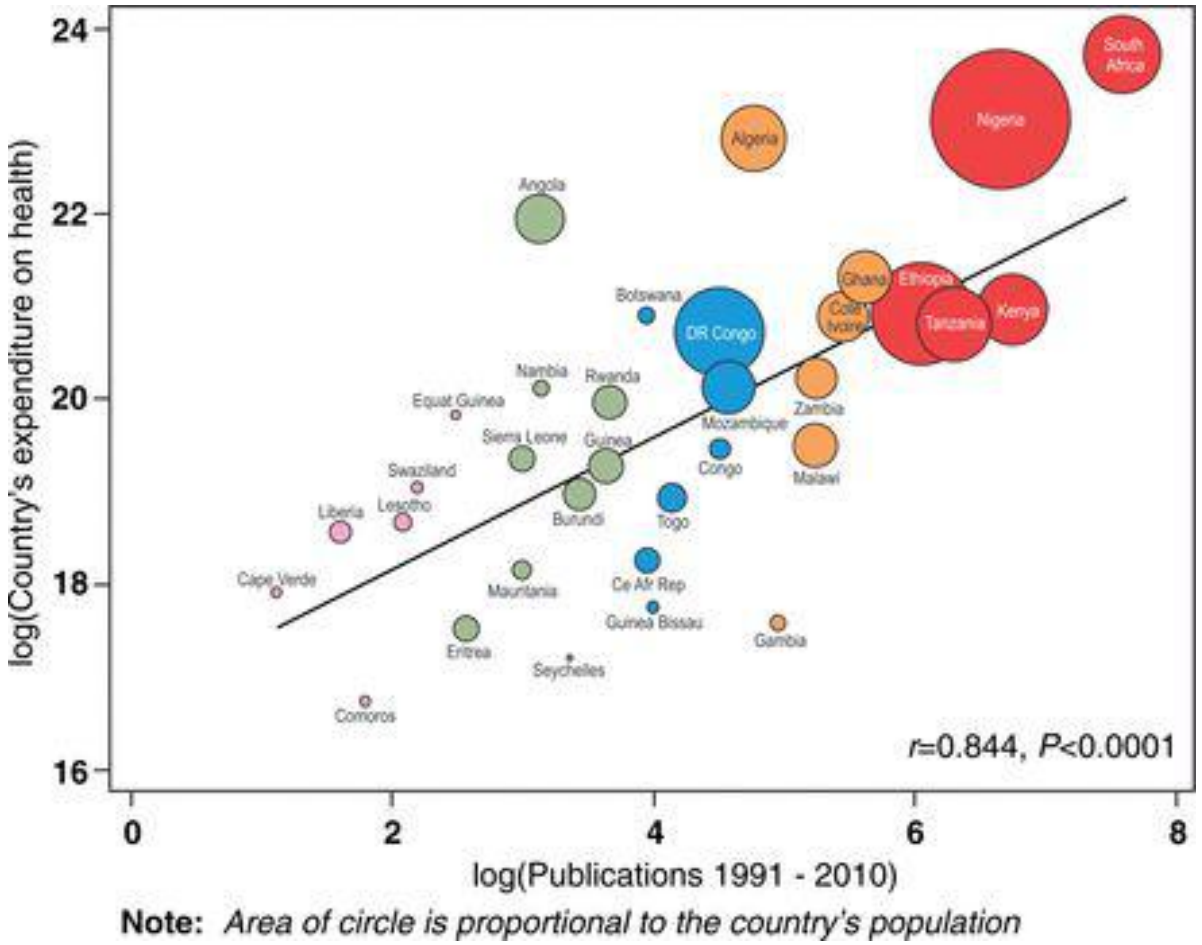
Nachega et al. Int J Epidemiol, Volume 41, Issue 6, December 2012, Pages 1829–1846, https://doi.org/10.1093/ije/dys189

Trends in WHO/AFRO sub-regional epidemiology and public health articles output indexed by SCI (1991–2010). ...



Nachega et al. Int J Epidemiol, Volume 41, Issue 6, December 2012, Pages 1829–1846, https://doi.org/10.1093/ije/dys189

Figure 6 Scatter plot showing association between total publications and country's expenditure on health (as % of GDP)



Note: *Area of circle is proportional to the country's population*

Nachega et al. Int J Epidemiol, Volume 41, Issue 6, December 2012, Pages 1829–1846, https://doi.org/10.1093/ije/dys189

National and state-Sponsored Health Research with WHO-AFRO

- The National Institute of Medical Research in Tanzania,
- The National Institute of Health Research of Zimbabwe,
- The Kenya Medical Research Institute (KEMRI)
- The Uganda Virus Research Institute.
- The South African Medical Research Council is independently established under an act of Parliament. Members of the Board are appointed by the Minister of Health

Non-Governmental Research Capacity Centres

- The Ifakara Health Institute in Tanzania,
- The Kintampo Health Research Centre in Kintampo, Ghana,
- KEMRI-Wellcome Trust Research Programme in Kilifi, Kenya,
- The Manhic¸a Health Research Centre in Maputo, Mozambique,
- The Infectious Diseases Institute of Makerere University in Kampala, Uganda,
- The Rakai Health Sciences Programme in Rakai, Uganda,
- The Malaria Research and Training Centre, University of Bamako, Mali

THE LANCET
Global Health

CORRESPONDENCE | VOLUME 2, ISSUE 12, E691-E692, DECEMBER 01, 2014

Southern Africa Consortium for Research Excellence (SACORE): successes and challenges

Wilson L Mandala • Frances M Cowan • David G Lalloo • Robert J Wilkinson • Paul Kelly • Midion M Chidzonga • Charles Michelo • Exnevia Gomo • Robin Bailey • Moses Simuyemba • Rosemary Musonda • Moffat Nyirenda • Jean B Nachega • Show less

Open Access • Published: November 12, 2014 • DOI: https://doi.org/10.1016/S2214-109X(14)70321-3

SACORE was one of seven consortia funded under the Wellcome Trust African Institutions Initiative—a £30 million, 5-year initiative launched in 2009 and aimed at strengthening research capacity in sub-Saharan Africa.

Southern Africa Consortium for Research Excellence (SACORE)

Malawi
College of Medicine, University of Malawi

Zambia
University of Zambia School of Medicine

Zimbabwe
University of Zimbabwe College of Health Sciences

Botswana
Botswana Harvard Partnership

South Africa
University of Cape Town
Stellenbosch University

UK Partners
Barts & The London School of Medicine
London School of Hygiene and Tropical Medicine
Liverpool School of Tropical Medicine
University of Liverpool
University College London

SACORE
SOUTHERN AFRICA CONSORTIUM FOR RESEARCH EXCELLENCE

Supported by wellcome trust

SACORE Selected Successes

- ✔ Recruitment of 30 PhD/MSc fellows
- ✔ Small seed grants
- ✔ Establishment of Research Support Centers
- ✔Finance management
- ✔ Professional development activities
- ✔ >350 publications
- ✔ South-South & South-North Partnerships

SACORE Best Practices

- The establishment of RSC in the 3 low-income partner institutions are transformative
- These act as one-stop service centres through which various research-related activities are coordinated and facilitated.
- They provide comprehensive research support services, including pre-award and post-award management of grants, to faculty and students, irrespective of funder.

SACORE Best Practices (Cont'd)

- The RSC in Malawi was already fully operational, having been established in 2006 with support from the Netherlands–African partnership for capacity development and clinical interventions of poverty-related diseases (NACCAP).
- In Zimbabwe, the RSC was established in 2011, and has since leveraged additional funding to construct offices and teaching facilities.
- The RSC in Zambia was established in 2011 and funded through SACORE. It consists of offices for research administration and lecturing facilities.
- All three centres are fully operational and later served as a model for other institutions in the region (eg, Makerere University in Kampala, Uganda, and the University of Rwanda in Butare, Rwanda).

SACORE Best Practices (Cont'd)

- Few appropriately experienced supervisors or mentors were available at low-income partner institutions, particularly for some areas of study.
- In response, we constructed triangular mentorship networks with local, regional, and UK-based advisers. For some fellows, this system worked well, with complementary advice from different senior academics.
- It worked less well for some others, either because of difficulty engaging the UK or regional expert, or because scholars were reluctant to reach out to people they had never met.

SACORE Best Practices (Cont'd)

- South–South partnerships, collaborations, and networking.
- Collaborative activities led by middle-income partner institutions (SU, UCT, BHP) have included cohosting of selected PhD and post-doc fellows when specialist training was not available at the host low-income partner institution; mentorship and supervision; and the training of fellows in the writing of research proposals, biostatistics, and laboratory skills.
- The SACORE Annual Scientific Meeting provides a forum for scientists at all stages of their careers to present their research and network with each other.
- A cross-consortium team visited all low-income partner institutions to assess progress towards consortium aims and provide technical guidance.

SACORE Lessons Learned

- At the University of Malawi College of Medicine (Blantyre, Malawi) and University of Zambia School of Medicine (Lusaka, Zambia), SACORE is no longer regarded as a standalone project, but as integral to the institutions which is key for sustainability
- The University of Zimbabwe College of Health Sciences (Harare, Zimbabwe) leveraged funding from other sources to engage a biostatistician to provide individualised support with proposal design and statistical analysis.
- The research support centres could be sustained financially with funds collected as research overheads, as is the case at most universities in the USA and Europe.

SACORE Best Practices (Cont'd)

- The RSC in Malawi was already fully operational, having been established in 2006 with support from the Netherlands–African partnership for capacity development and clinical interventions of poverty-related diseases (NACCAP).
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- All three centres are fully operational and later served as a model for other institutions in the region (eg, Makerere University in Kampala, Uganda, and the University of Rwanda in Butare, Rwanda).
- A professional development committee was established to determine the training needs of faculty and fellows.

MEPI was a US$130 million competitively awarded grant by the US President's Emergency Plan for AIDS Relief and National Institutes of Health to 13 medical schools in 12 sub-Saharan African countries

MEPI: 5 GOALS

#1 CAPACITY

Increasing the numbers & quality of HCWs

#2 RETENTION

Retaining HCWs over time and in areas where they are most needed

#3 RESEARCH

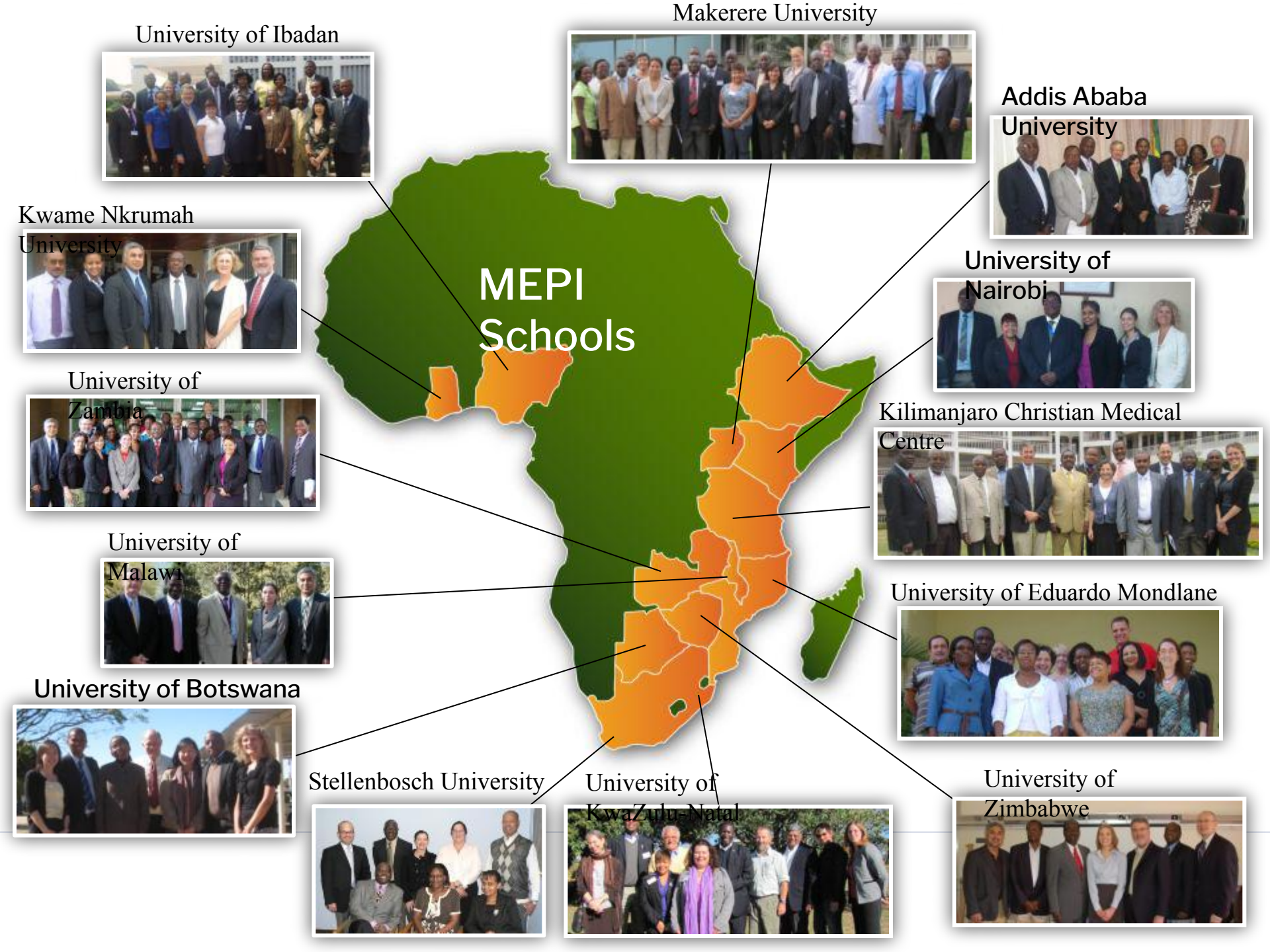
Supporting regionally relevant research

#4 SUSTAINABILITY

Sustainability of the programs

#5 COMMUNITIES OF PRACTICE

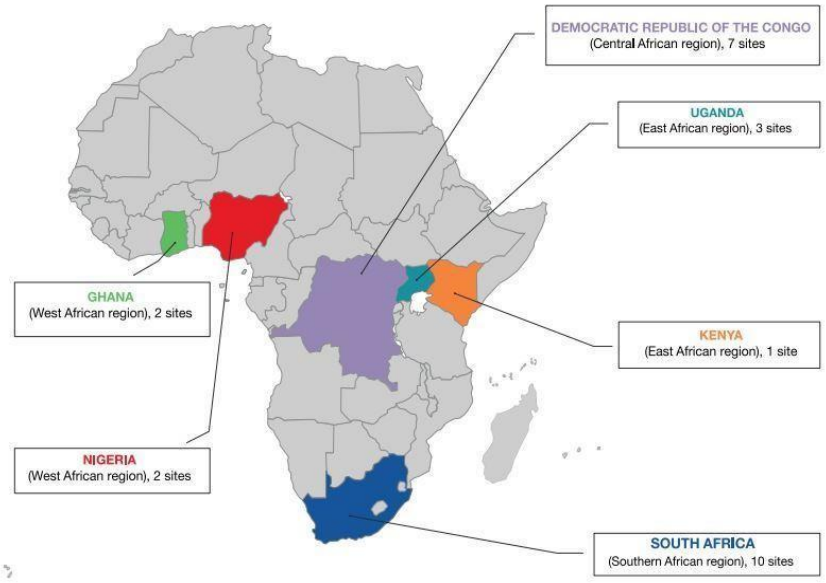
Creating communities of Practice

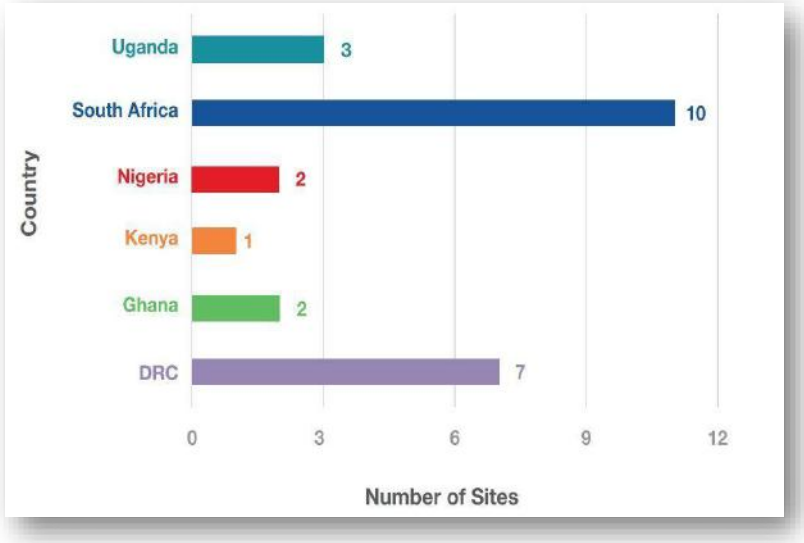

University of Ibadan
Makerere University
Addis Ababa University
Kwame Nkrumah University
MEPI Schools
University of Nairobi
University of Zambia
Kilimanjaro Christian Medical Centre
University of Malawi
University of Eduardo Mondlane
University of Botswana
Stellenbosch University
University of KwaZulu-Natal
University of Zimbabwe

Overall MEPI Major successes

- ✔Establishment of 10 new schools
- ✔Doubled student intake in some schools, increased postgraduate student numbers three-fold, and
- ✔Improved faculty expansion and retention
- ✔ Establishment of Research Support Centers
- ✔Embraced e-Learning by enhancing infrastructure, improving internet connectivity, installing more computers, and restructuring library spaces
- ✔ Over 376 peer-reviewed publications, including a special supplement in Academic Medicine in 2014
- ✔ Expansion of South-South & South-North Partnerships

AFREhealth COVID-19 Multi-Country Research Protocols (Adults, Children and Pregnant Women)





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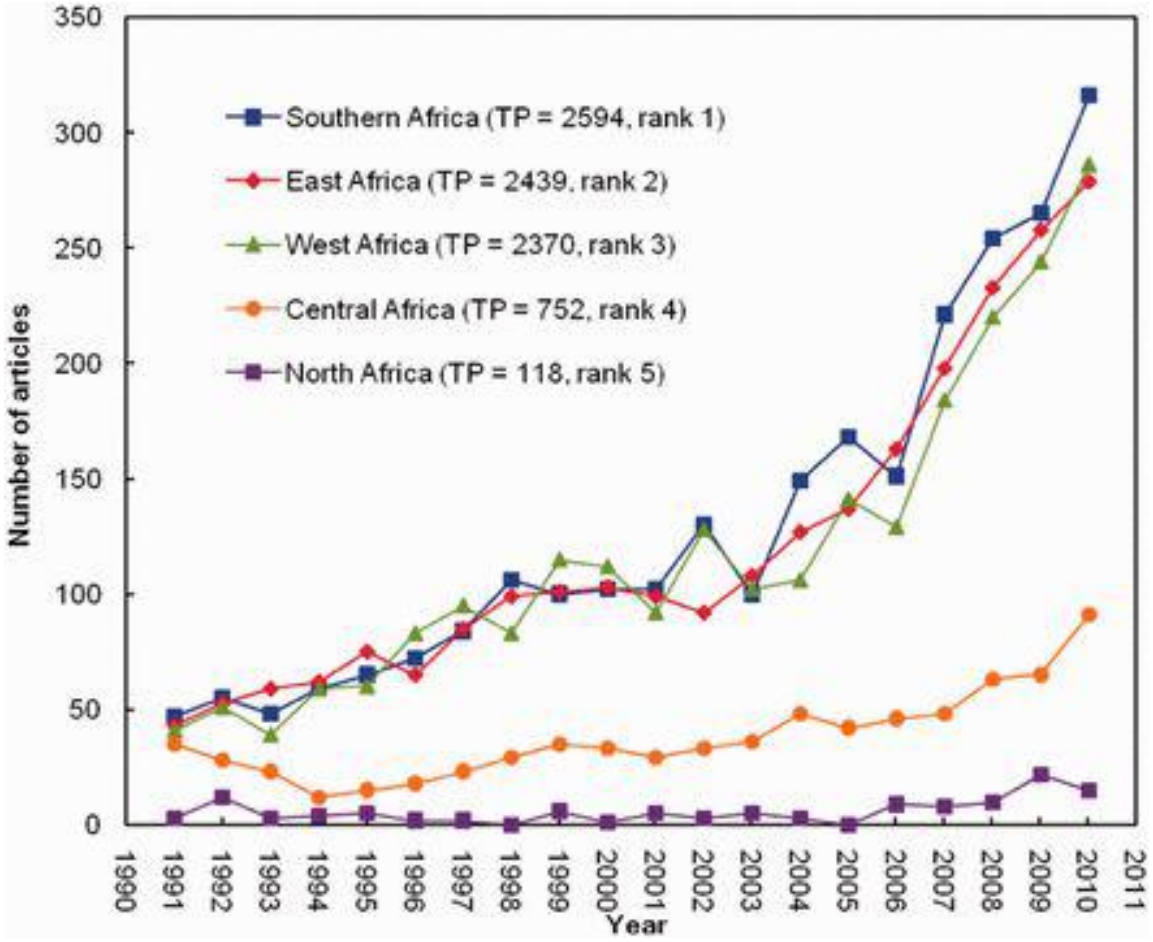

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AREF – EDCTP Essential Grant Writing Workshop
(14-16 October 2019) – Libreville, Gabon

Document status: VERSION 5: For distribution.

Venue: Le Méridien Re-Ndama, Libreville, Gabon

Timing	Day 0- Sunday 13 October 2019
18:00 – 18:15 **15 mins**	Welcome Location/meeting point: Eliwa Restaurant Outside (TBC)
18:15 – 19:00 **45 mins**	Icebreaker / "Speed dating" (by PD) Location: TBC

AREF Facilitators:

Bridget Bannerman (BB) PhD, Science Manager, AREF

Peter Dukes (PD) PhD, Associate Director of Programmes, AREF

Dembo Kanteh (DK), Coordinator, West Africa Research Platform, MRC Unit The Gambia @ LSHTM

Modibo Sangare (SM) M, PhD, Associate Professor, FMOS, Bamako, Mali.

AFREhealth Facilitator:

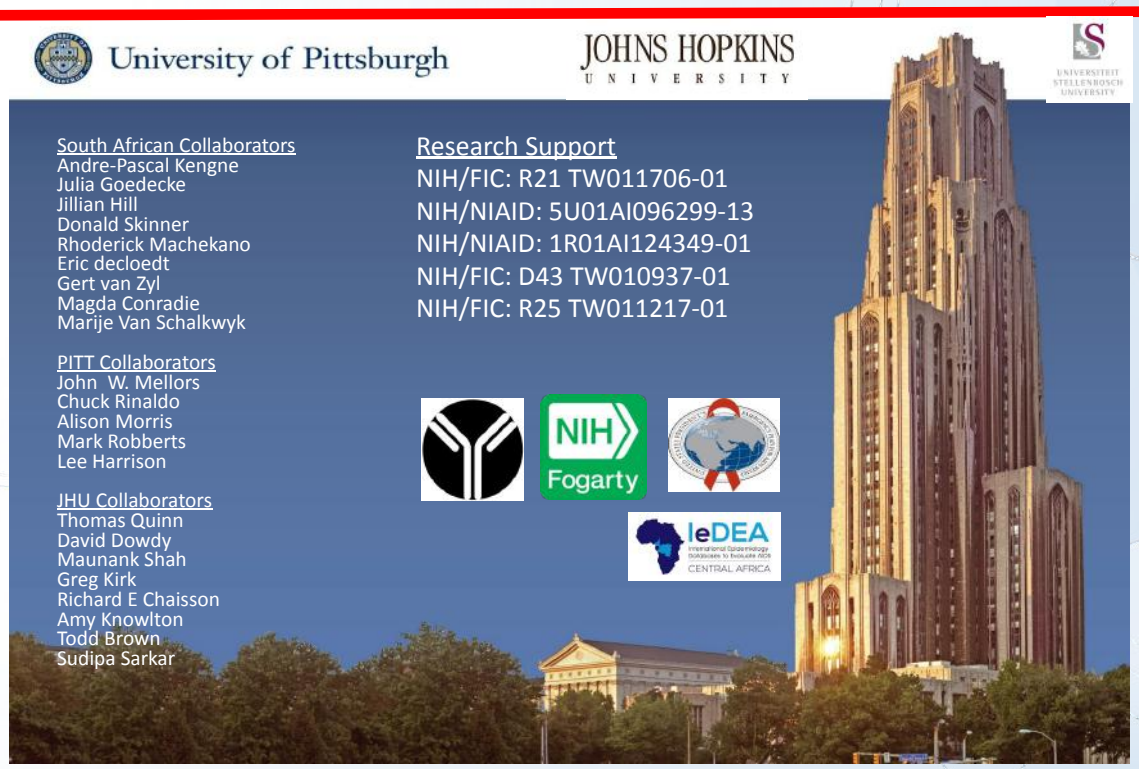
Jean B. Nachega (JN) MD, PhD, Stellenbosch University, Cape Town, South Africa

EDCTP workshop grant proposal writing, Libreville, Gabon, 14-16 October 2019

Concluding Thoughts

- Research, capacity and expertise in Africa are increasing, but they can have a greater impact on health if the following recommendations are implemented.
- Human resources planning for research will need the same level of attention from local and global actors as human resources for personal health services.
- African governments must invest in health research if they want to take charge of the research agenda and sustain existing capacity building efforts, which are mostly foreign funded
- Filling the health research gaps between region should also be priority

Acknowledgements



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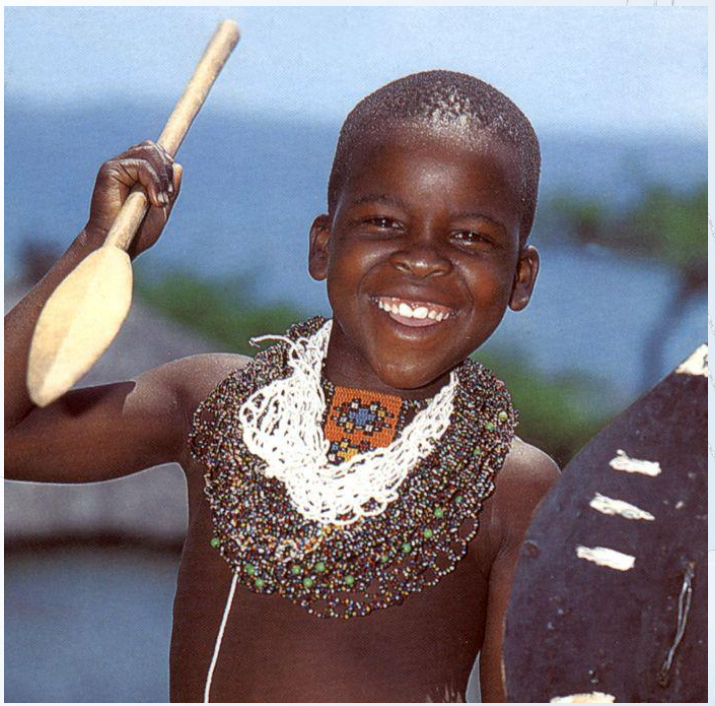


THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

Insights on building capacity for health research in Africa

Presentation for the 2nd meeting of the ESSENCE Mechanism

November 2, 2021

Rhona Mijumbi-Deve, Makerere University College of Health Sciences, Uganda - rmijumbi@acres.or.ug
Catherine M. Jones, Department of Health Policy, LSE, United Kingdom - c.jones11@lse.ac.uk

This research was funded by Wellcome.

lse.ac.uk/lse-health

Background

- Being able to evaluate and measure a country's performance in health research (HR) is important
- However, HR systems are complex and multifaceted in nature
- Challenges for the interpretation of HR performance indicators affect their relevance

Concerns with performance metrics

- **Context**
  - The construction and choice of metrics in global health are not as straightforward – are inherently constructed.
  - E.g., metrics may be decidedly political, with choices having to be made as to what to count in the first place, where to count it and how to use or aggregate data

- **Challenges in measurements of complex phenomena**
  - Conceptualisation, measurement, aggregation

  - To ensure accuracy and avoid potential biases, explicitly consider the objectives of the given measurement
    - why is the measure needed…….which should then determine the choice of indicators used

  - Measuring complex phenomena also requires that we consider the fact that some direct measures of a given entity may be unobservable and that important data can be missing.

Key issues identified with potential health research performance metrics

	Issues identified		
Indicator	**Conceptualisation**	**Measurement**	**Aggregation**
Publications	It is unclear how or when publications capture meaningful collaborations versus tokenistic ones.		It is also unclear how to combine article with differing contributions (first, last or any author) to reflects goals of HR development.
Clinical trials	This biases attention to some forms of research (eg, clinical/ epidemiological).	The metric cannot easily measure relevance to local needs.	
Patents filed		Counts do not distinguish usefulness or quality.	
Research institutions	Unclear what constitutes a relevant institution.	Quality hard to assess (in context).	Unclear how to weigh the value of large centres of excellence versus smaller institutions.
Research personnel	Lack of clarity on what constitutes research staff or how to include support elements.	Quality hard to assess.	Unclear how to combine different types of researchers into a single indicator.
Resources for HR	Unclear when or how domestic versus international funding matters to HR performance.	Lack of standard national budget lines to identify comparable spending.	
Policies and regulations	Not clear what constitutes relevant policies, and these may be context-sensitive.	Actual impact or influence of policies and regulations hard to evaluate.	Unclear how to combine elements such as policies, supportive regulations and agencies into a single indicator.

A qualitative approach to understanding health research capacity in national health research systems

Health Research: Essential Link to Equity in Development (Commission on Health Research and Development,1990) introduced agenda to strengthen national health research systems in low- and lower-middle-income countries (LMICs).

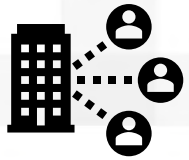
A National Health Research System (NHRS) is:

> *the people, institutions, and activities whose primary purpose is to generate high-quality knowledge that can be used to promote, restore, and/or maintain the health status of populations*. (Pang *et al*. 2003, p. 816)

Literature on NHRS generally counts, evaluates, and describes pillars for an NHRS to fulfil four key functions as a basis for key health research performance metrics.

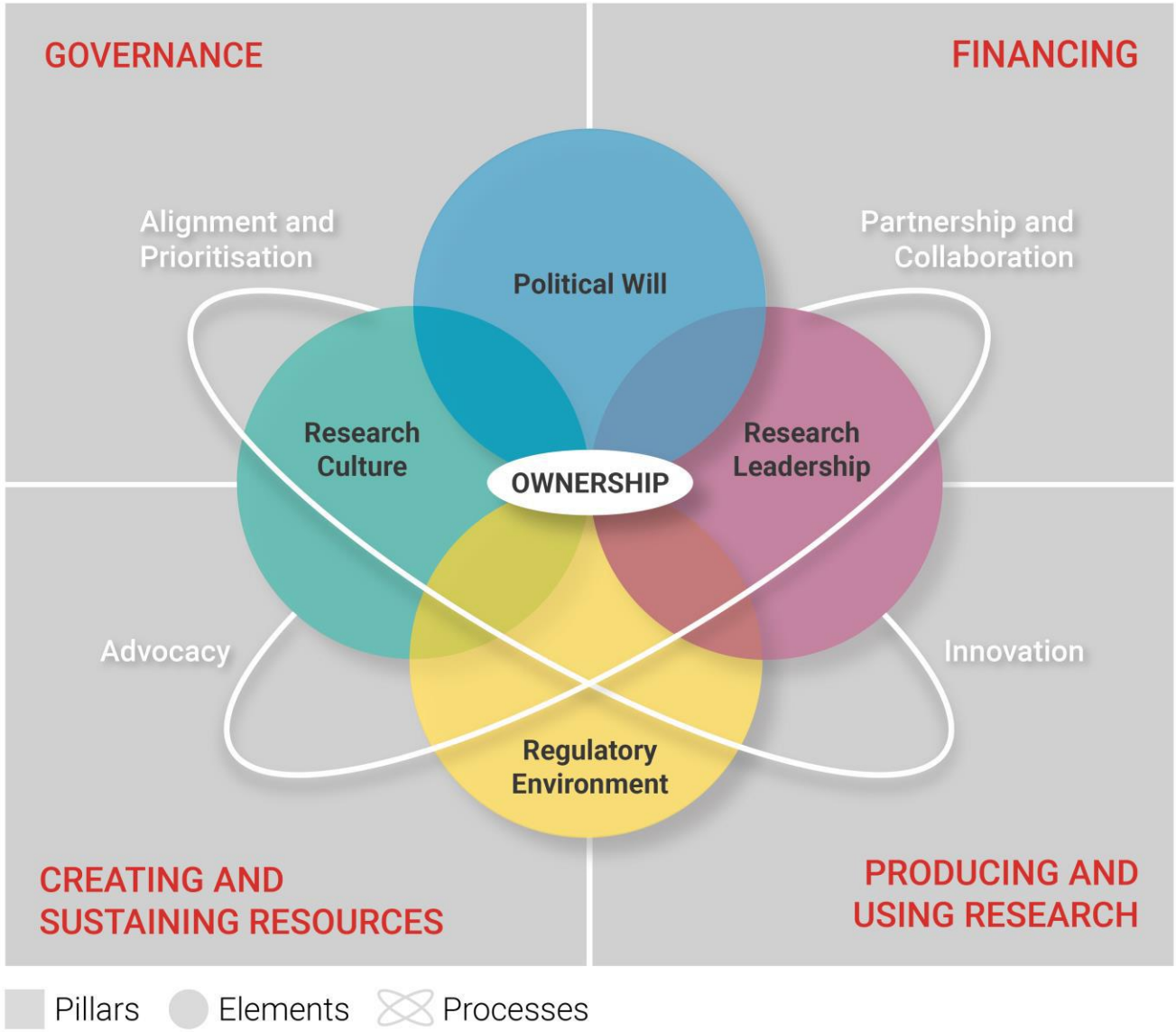
Governance

Financing



Creating & sustaining resources

Producing & using knowledge


GOVERNANCE
FINANCING
Alignment and Prioritisation
Partnership and Collaboration
Political Will
Research Culture
Research Leadership
OWNERSHIP
Advocacy
Innovation
Regulatory Environment
CREATING AND SUSTAINING RESOURCES
PRODUCING AND USING RESEARCH
Pillars
Elements
Processes

Implications for ESSENCE Mechanism to coordinate HR funding in LMICs

Include variety of national stakeholders to participate, not only those researchers and institutions holding the grants from ESSENCE funders

- Benefits to local coordination, alignment, advocacy and political will from involving government policy sectors including higher education, health, and science, technology and innovation as well as university and research leadership

Consider founding the coordination process of multiple funders in-country on principles of shared governance, emphasizing national leadership and ownership of the agenda, discussions, and decisions

Thank you

Research team and collaborators

Amos Ankotche (Côte d'Ivoire), Emily Canner (LSE Health) Fatma Habboubi (Tunisia), Mamuye Hadis (Ethiopia), Aaron Heidquist (LSE Health), Catherine M. Jones (LSE Health), Pamela A. Juma (Kenya), Dineo Kebadiretse (Botswana), Tiny Masupe (Botswana), Rhona M. Mijumbi (Uganda), Namuunda Mutombo (Zambia), Aina Anjatiana Rakotobe (Madagascar), Joëlle Sobngwi-Tambekou (Cameroon), Abel Welwean, Sr. (Liberia), Olivier Wouters (LSE Department of Health Policy).

Justin Parkhurst (co-PI, LSE Department of Health Policy), Clare Wenham (co-PI, LSE Department of Health Policy)

For more information: https://www.lse.ac.uk/lse-health/research/projects/research-capacity-in-africa-2

Acknowledgements

This research was funded by Wellcome.

We thank all of the key informants for their time and participation in the study, and the members of the International Oversight Group for their engagement and contributions to discussions on the implications of this work throughout the project.

Scientific papers published from the project

Beyond the metrics of health sciences research performance in African countries

BMJ Global Health **https://gh.bmj.com/content/6/7/e006019**

- Critical review of key indicators of health research capacity and performance

Measuring health sciences research capacity and performance in Africa: mapping the available data

Health Research Policy and Systems **(in press)**

- Mapping structural, process, and output indicators of health research performance in all 54 African countries

Governance of Health Research in four Eastern and Southern African countries

Health Research Policy and Systems **https://doi.org/10.1186/s12961-021-00781-3**

- Comparative analysis of health research governance in Botswana, Kenya, Uganda, and Zambia

Health research in Madagascar: state of the art, challenges, and perspectives (article in French/article en français)

Pan African Medical Journal **https://www.panafrican-med-journal.com/content/article/39/36/full/**

- Analysis of factors influencing the development of the health research system in Madagascar

Policy and grey papers from two projects

Available at: https://www.lse.ac.uk/lse-health/research/projects/research-capacity-in-africa-2

Building the case for investment in health sciences research in Africa

- Policy brief for national stakeholders - Recommendations for strengthening health sciences research in Africa (**in English**) (**en Français**)
- Strengthening national health research systems in Africa: infographic summary of key findings (**in English**) (**en Français**)
- Executive summary of final report (**in English**) (**en Français**)
- Strengthening national health research systems in Africa: lessons and insights from across the continent (**full report**)
  - Appendix 1 to the report – **Research methods**
  - Appendix 2 to the report – **Phase 1 results tables and figures**
-

Strengthening national health research systems: a regional analysis

- Strengthening health research systems in Africa: a regional analysis (**full report**)
- Research brief on the roles of regional organisations (**in English**) (**en Français**)

Leading a Consortium for Health Research Capacity Building in the West Indies

02 November 2021

John F. Lindo* and Gene D. Morse[≠]

Co-chairs SUNY-UWI Health Research Consortium

*University of the West Indies and [≠] University at Buffalo-SUNY

1947-1948

February 1, 1947

The University College of the West Indies was officially opened.

Early 1947

University College relocated to Gibraltar Camp at Mona.

1948

Mona Campus open with 10 female and 23 male Caribbean students admitted to Faculty of Medicine.

UWI now in the top 1.5%

THE TIMES HIGHER EDUCATION WORLD UNIVERSITY RANKINGS 2022

University moved up **94** places

Performance

401-500 (2022)

501-600 (2021)

of international students remained constant

Industry income

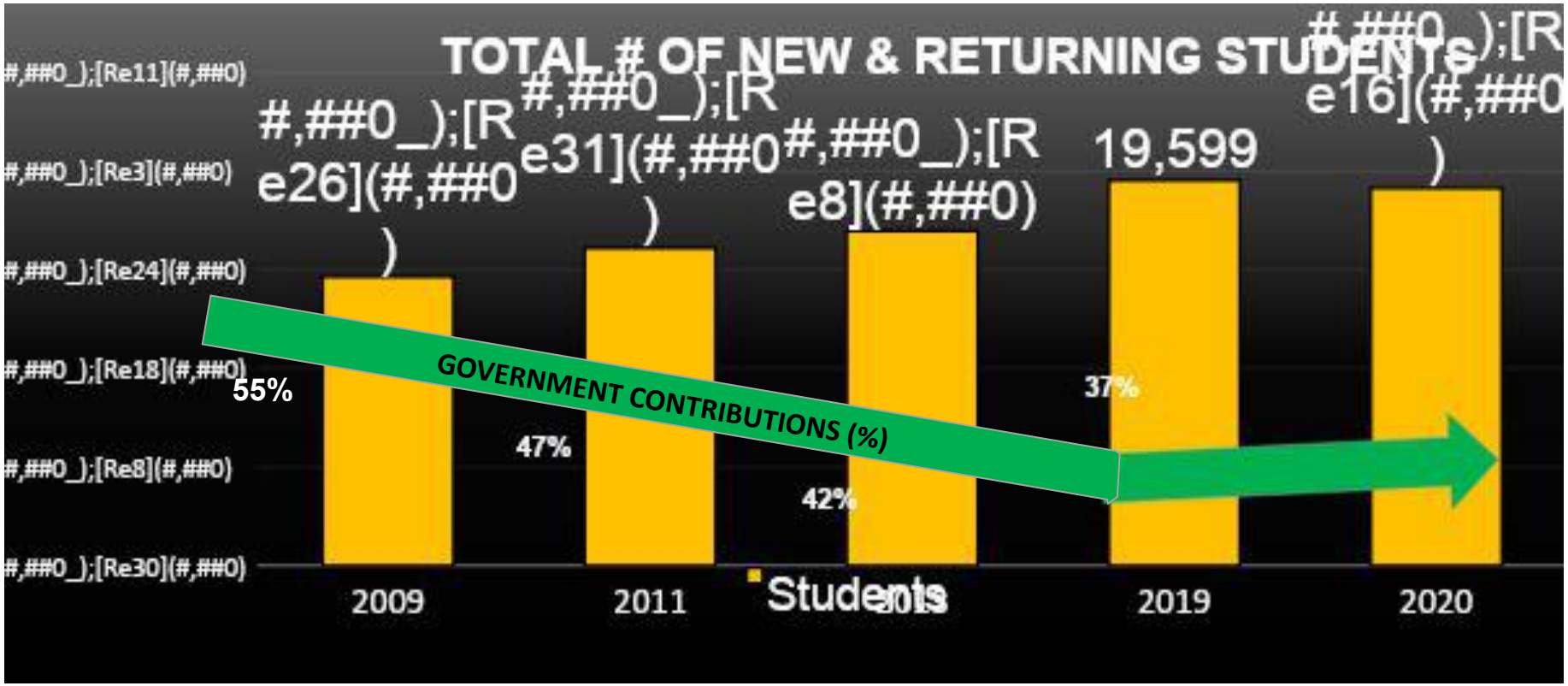
- Teaching
- Research
- Citations
- Industry income
- International outlook

- Exceptional performance in 'Citations'
- Improvements in teaching scores
- Research reputation scores
- International

Students/academic staff ratio

AG2

GOVERNMENTT CONTRIBUTIONS to Campus expenditure



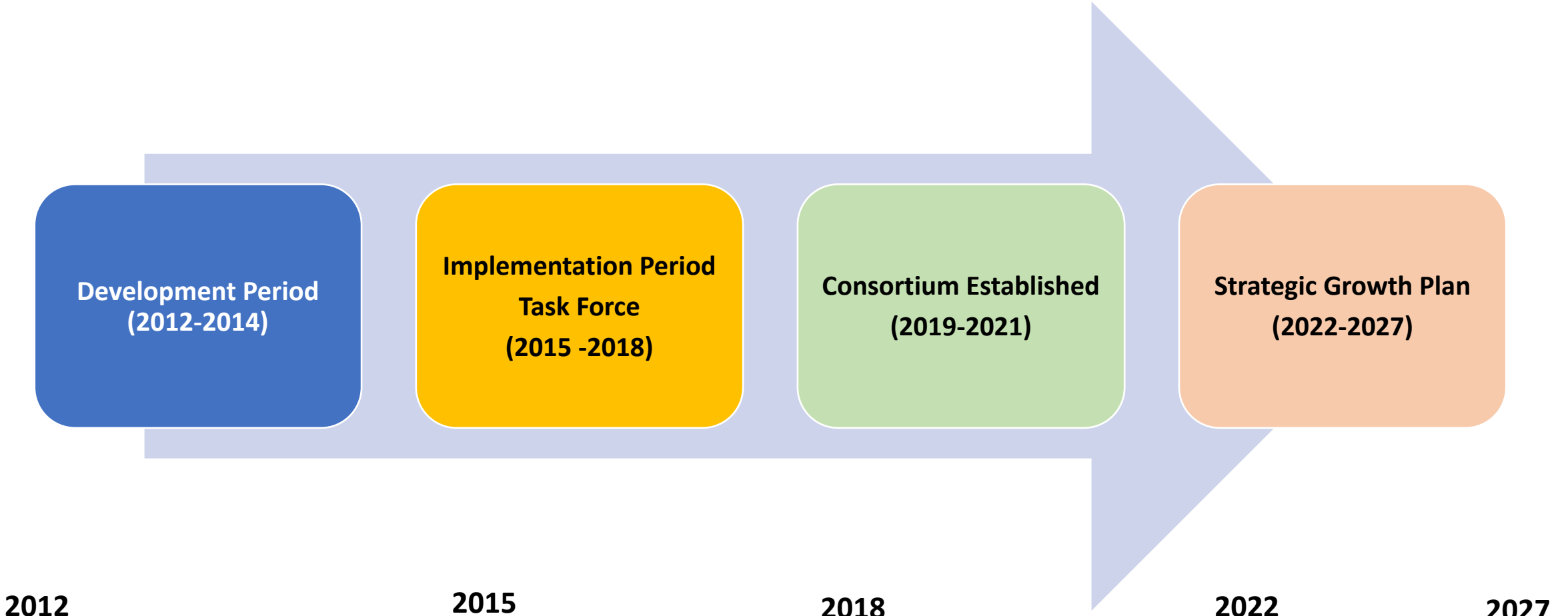
Per capita research output

- Required by contract >2.0 papers per year
- Web of Science per capita output of Mona campus
  - 2015/16 = 0.952
  - 2016/17 =0.929
  - 2017/18 = 0.721
  - 2018/19 = 0.763

SUNY-UWI Health Research Consortium (HRC) Activities

- HRC Timelines
- Health Research Priority Areas
- Health Research Infrastructure
  - Clinical Research Center Network
  - Core Laboratory Network
  - Health Information Technology Network
- Sustainable Development Goals
  - SUNY-UWI MBA program collaboration

SUNY-UWI HRC Timeline



SUNY-UWI HRC Timeline

Development Period (2012-2014

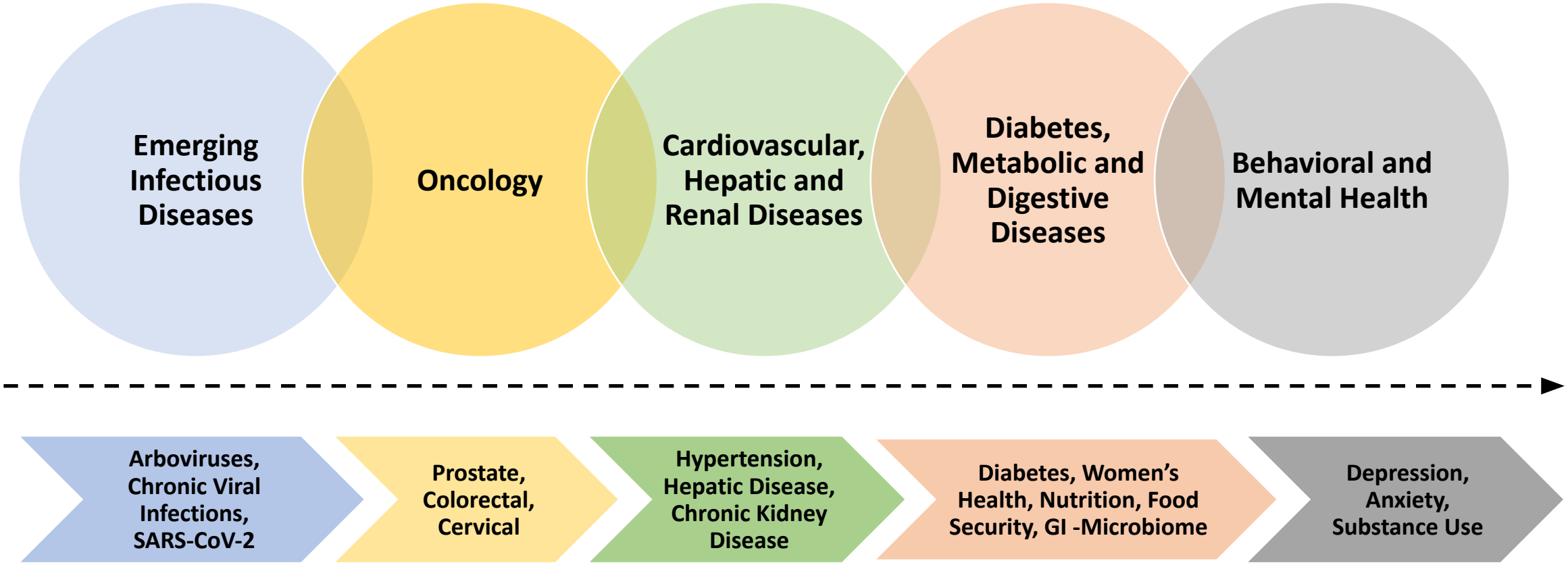
Implementation Period Task Force (2015 -2018)

Consortium Established (2019-2021)

Strategic Growth Plan (2022-2027)

2012 2015 2018 2022 2027

Health Research Priority Areas



Viral Epidemics in Jamaica

thebmj

BMJ 2016;352:i383 doi: 10.1136/bmj.i383 (Published 21 January 2016)

Jamaica advises women to avoid pregnancy as Zika virus approaches

Owen Dyer

Trends of Microcephaly and Severe Arthrogryposis in Three Urban Hospitals following the Zika, Chikungunya and Dengue Fever Epidemics of 2016 in Jamaica

T James-Powell[1], Y Brown[2], CDC Christie[3], R Melbourne-Chambers[3], JT Moore[3], O Morgan[2], B Butler[1] K Swaby[3], A Garbutt[3], J Anzinger[4], RB Pierre[3], A Onyonyor[5], L Bryan[6], PM Palmer[3], P Mitchell[2, 5], P Johnson[7], K Bishop[8], JR Jaggon[8], W De La Haye[9]

Unravelling the Paediatric and Perinatal Zika Virus Epidemic through Population-based Research

CDC Christie[1], C Giaquinto[2]

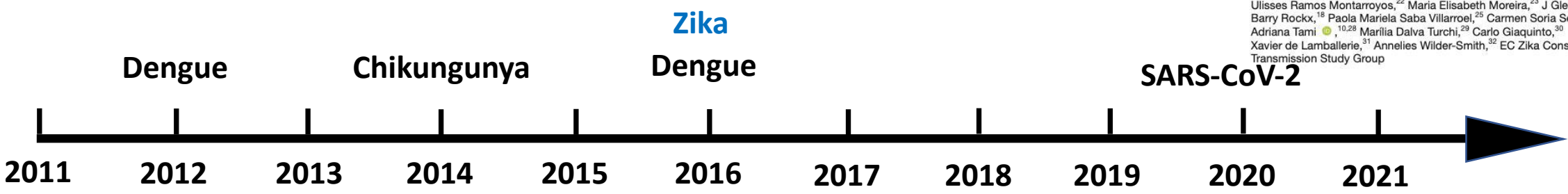
Zika virus evolution and spread in the Americas

Hayden C. Metsky[1,2*], Christian B. Matranga[1*], Shirlee Wohl[1,3*], Stephen F. Schaffner[1,3,4*], Catherine A. Freije[1,3], Sarah M. Winnicki[1], Kendra West[1], James Qu[1], Mary Lynn Baniecki[1], Adrianne Gladden-Young[1], Aaron E. Lin[1,3], Christopher H. Tomkins-Tinch[1], Simon H. Ye[1,5], Daniel J. Park[1], Cynthia Y. Luo[1,3], Kayla G. Barnes[1,3,4], Rickey R. Shah[1,6], Bridget Chak[1,3], Giselle Barbosa-Lima[7], Edson Delatorre[8], Yasmine R. Vieira[7], Lauren M. Paul[9], Amanda L. Tan[9], Carolyn M. Barcellona[9], Mario C. Porcelli[10], Chalmers Vasquez[10], Andrew C. Cannons[11], Marshall R. Cone[11], Kelly N. Hogan[11], Edgar W. Kopp IV[11], Joshua J. Anzinger[12], Kimberly F. Garcia[13], Leda A. Parham[13], Rosa M. Gélvez Ramírez[14], Maria C. Miranda Montoya[14], Diana P. Rojas[15], Catherine M. Brown[16], Scott Hennigan[16], Brandon Sabina[16], Sarah Scotland[16], Karthik Gangavarapu[17], Nathan D. Grubaugh[17], Glenn Oliveira[18], Refugio Robles-Sikisaka[17], Andrew Rambaut[19,20], Lee Gehrke[21,22], Sandra Smole[16], M. Elizabeth Halloran[23,24], Luis Villar[14], Salim Mattar[25], Ivette Lorenzana[13], Jose Cerbino-Neto[7], Clarissa Valim[4,26], Wim Degrave[27], Patricia T. Bozza[28], Andreas Gnirke[1], Kristian G. Andersen[17,18,29§], Sharon Isern[9§], Scott F. Michael[9§], Fernando A. Bozza[7,30§], Thiago M. L. Souza[31,32§], Irene Bosch[21§], Nathan L. Yozwiak[1,3§], Bronwyn L. MacInnis[1,4§] & Pardis C. Sabeti[1,3,4,33§]

BMJ Open

Zika virus infection in pregnancy: a protocol for the joint analysis of the prospective cohort studies of the ZIKAlliance, ZikaPLAN and ZIKAction consortia

A E Ades,[1] Elizabeth B Brickley,[2] Neal Alexander,[2] David Brown,[3] Thomas Jaenisch,[4] Demócrito de Barros Miranda-Filho,[5] Moritz Pohl,[6] Kerstin D Rosenberger,[4] Antoni Soriano-Arandes ,[7] Claire Thorne ,[8] Ricardo Arraes de Alencar Ximenes,[5] Thalia Velho Barreto de Araújo,[5] Vivian I Avelino-Silva,[9] Sarah Esperanza Bethencourt Castillo,[10] Victor Hugo Borja Aburto,[11] Patrícia Brasil,[12] Celia D C Christie,[13] Wayner Vieira de Souza,[14] Jose Eduardo Gotuzzo H,[15] Bruno Hoen,[16,17] Marion Koopmans,[18] Celina Maria Turchi Martelli,[14] Mauro Martins Teixeira,[19] Ernesto T A Marques,[14,20] Maria Consuelo Miranda,[21] Ulisses Ramos Montarroyos,[22] Maria Elisabeth Moreira,[23] J Glenn Morris,[24] Barry Rockx,[18] Paola Mariela Saba Villarroel,[25] Carmen Soria Segarra,[26,27] Adriana Tami ,[10,28] Marília Dalva Turchi,[29] Carlo Giaquinto,[30] Xavier de Lamballerie,[31] Annelies Wilder-Smith,[32] EC Zika Consortia Vertical Transmission Study Group



Global Infectious Diseases Research Training Program

National Institutes of Health, Fogarty International Center

Leadership Group

- **Gene D. Morse, PharmD** (PD/PI), SUNY Distinguished Professor and Director, Center for Integrated Global Biomedical Sciences, University at Buffalo, SUNY

- **Timothy Endy, MD** (Co-PD/PI), Professor and Chair, Department of Microbiology and Immunology, Upstate Medical University, SUNY

- **John F. Lindo, PhD** (Co-I), Professor of Microbiology, UWI; Director of National Laboratory Services, Ministry of Health,

Global Infectious Diseases Research Training Program

National Institutes of Health, Fogarty International Center

Specific Aims:

- Create a core of young investigators by providing "value added" training based on a mentored curriculum and core laboratory experiences
    - Emphasize research design, methods and analytic techniques to address virology research questions that confront Jamaica.
- Provide an integrated mentoring program that fosters innovative research and enhances the trainees' ability to conceptualize research problems with increasing independence.
- Develop future research leaders in virology who will establish extramurally funded research programs and mentor the next generation.


RESEARCH NEWS

UB receives $1.1M to lead training in viral infection research in Jamaica

The University of the West Indies at Mona, Jamaica

Marketing, Recruitment and Communications Office

Search |

Navigation

- Home
- About

The UWI Mona Joins Global Virus Network to Combat Viral diseases

Posted: February 26, 2019

The University of the West Indies at Mona, Jamaica

Marketing, Recruitment and Communications Office

Search |

Navigation

- Home
- About

The UWI Partners with Abbott for Pandemic Defense Coalition: A Global Network of Expert Collaborators Designed to Identify and Prevent Future Pandemics

Posted: March 15, 2021

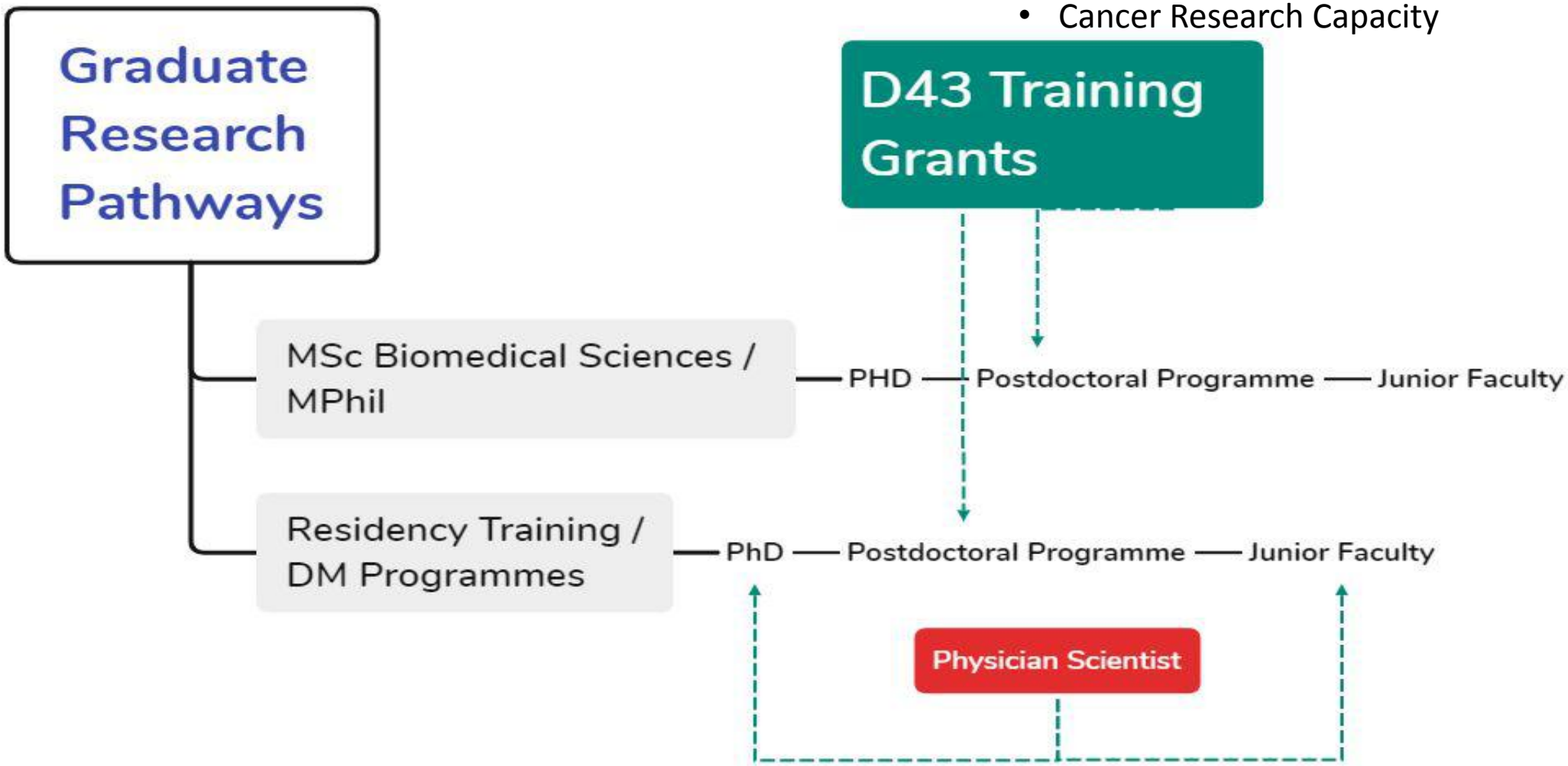
Global Infectious Diseases Research Training Program

- Focus on Master's and PhDs while piloting post-doctoral programs
- UWI has demonstrated a commitment to create new faculty positions to accommodate well trained researchers
- Strategy of GIDRTP
  - Train individuals who will be suited for these positions
  - Attain peer reviewed funding
  - Contribute to the growing critical mass of independent researchers at UWI and Ministry of Health

Research Capacity Training

TWO - D43 Applications through Fogarty Institute

- Social Determinants of Health
- Cancer Research Capacity

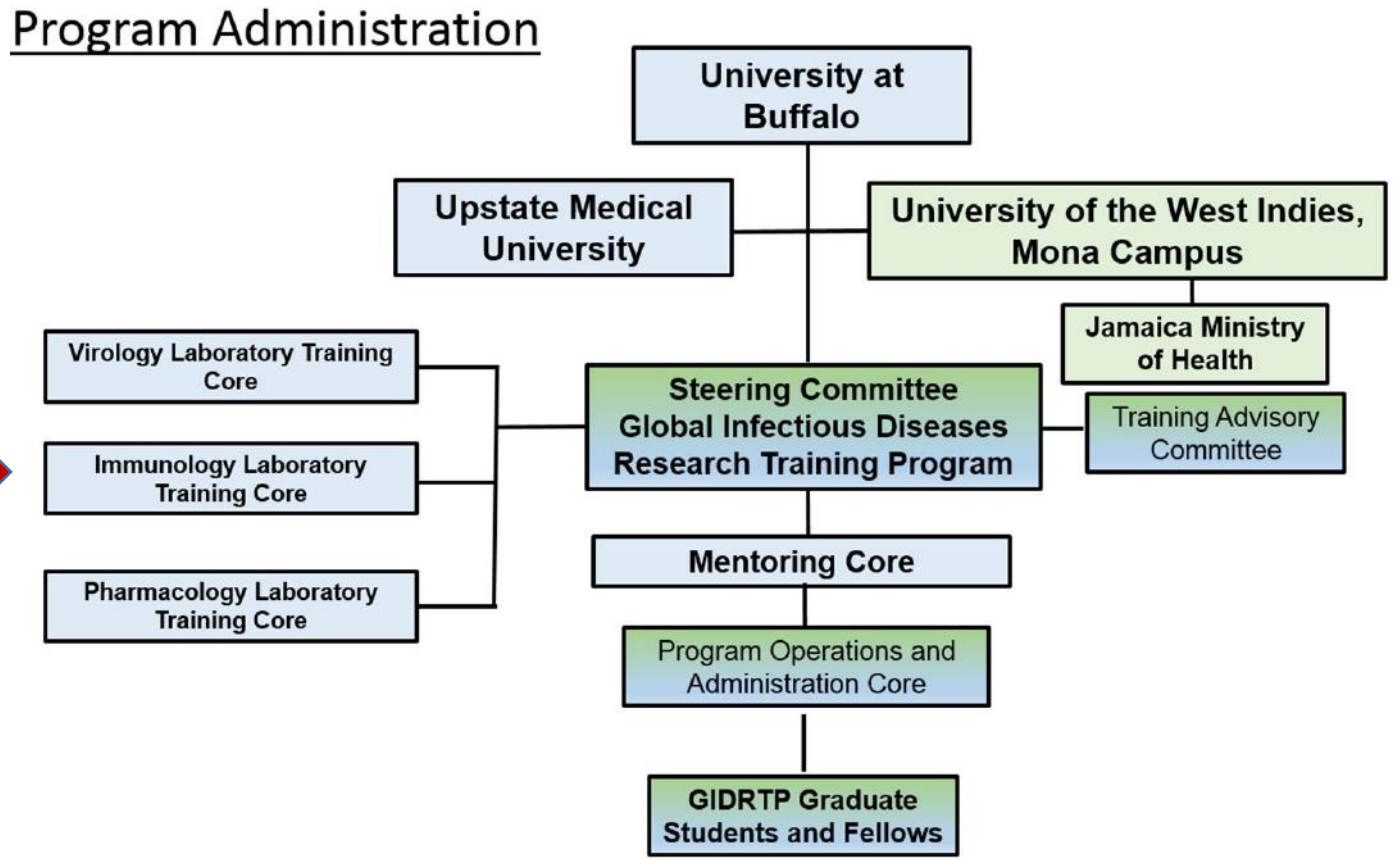


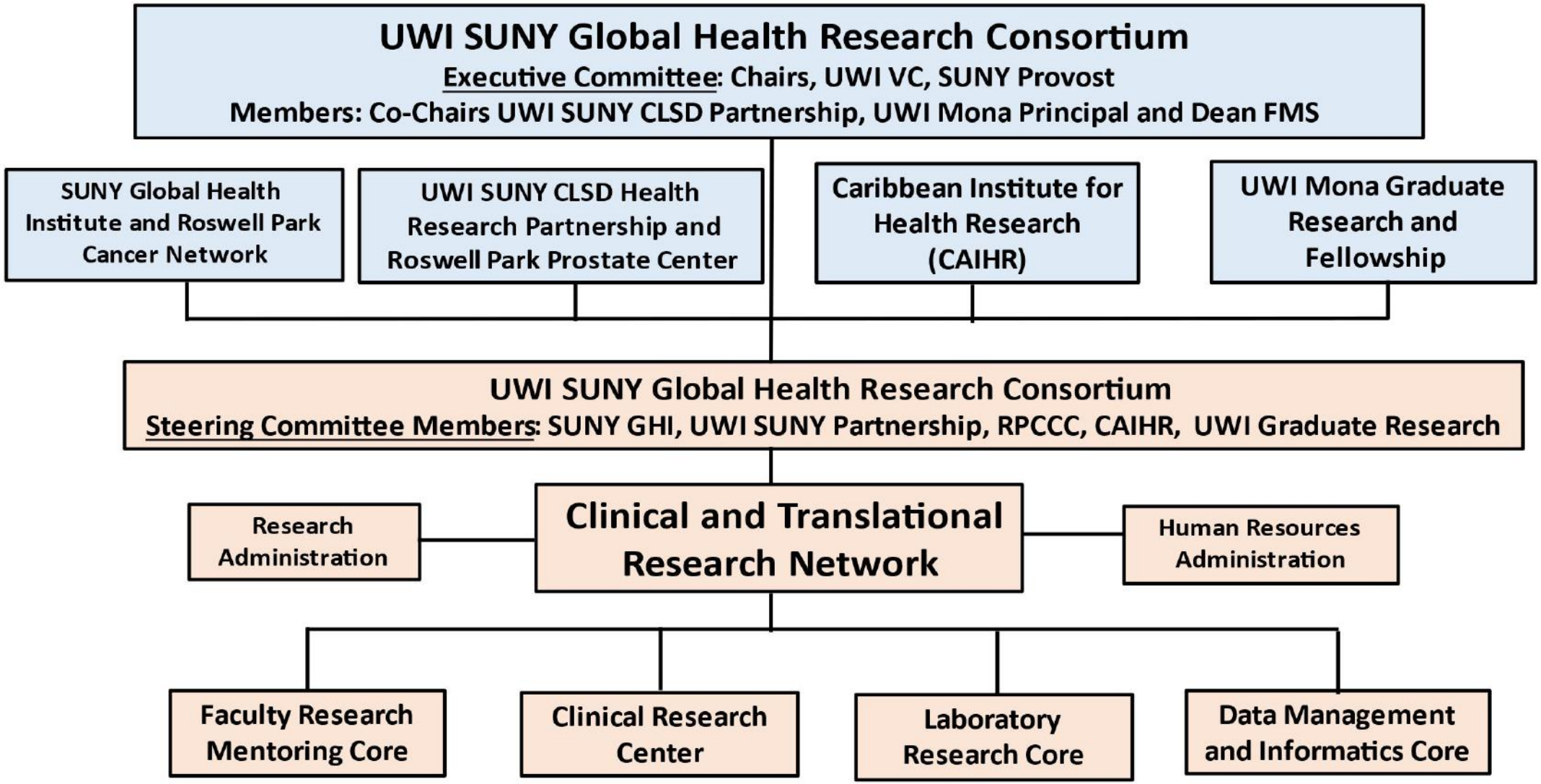
fmsclinicaltrialscentre@uwimona.edu.jm

Global **Infectious Diseases Research Training Program: Focus on Emerging and Chronic Virology Research**

NIH Fogarty International Center:1D43TW010919 - 01

GLOBAL VIRUS NETWORK




UWI SUNY Global Health Research Consortium
Executive Committee: Chairs, UWI VC, SUNY Provost
Members: Co-Chairs UWI SUNY CLSD Partnership, UWI Mona Principal and Dean FMS
SUNY Global Health Institute and Roswell Park Cancer Network
UWI SUNY CLSD Health Research Partnership and Roswell Park Prostate Center
Caribbean Institute for Health Research (CAIHR)
UWI Mona Graduate Research and Fellowship
UWI SUNY Global Health Research Consortium
Steering Committee Members: SUNY GHI, UWI SUNY Partnership, RPCCC, CAIHR, UWI Graduate Research
Research Administration
Clinical and Translational Research Network
Human Resources Administration
Faculty Research Mentoring Core
Clinical Research Center
Laboratory Research Core
Data Management and Informatics Core

Health Research Priority Areas - Partners

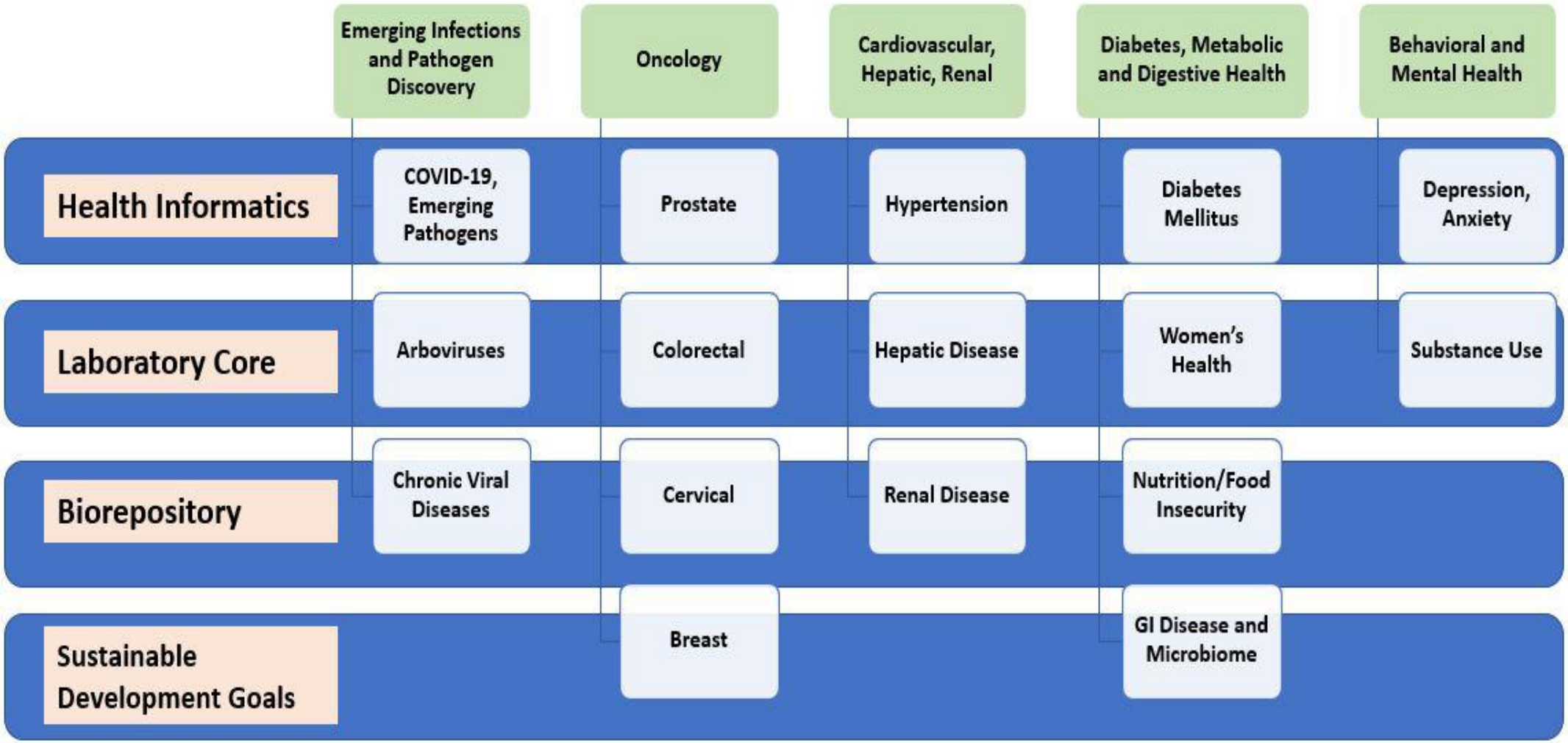
Arboviruses, Chronic Viral Infections, SARS-CoV-2	• NIH Fogarty International Center – Global Infectious Diseases Research Training Program • GVN Affiliate Centers at UWI Mona Campus and St. Augustine Campus • Abbott Pandemic Defense Coalition
Prostate, Colorectal, Cervical	• Prostate Cancer Center of Excellence with Roswell Park Comprehensive Cancer Center • Pelvic Oncology Center – Includes Prostate, Colorectal and Cervical Cancer • Robotics Surgery Program – Fellowship Program - Roswell Park Comprehensive Cancer Center
Hypertension, Hepatic Disease, Chronic Kidney Disease	• Needs assessment for cardiovascular diseases ongoing • Seroprevalence and genotype diversity of Hepatitis B and C Viruses in Jamaica • Participation in UB's Abbott Virology Diagnostics Center
Diabetes, Women's Health, Nutrition, Food Security, GI -Microbiome	• Electronic medical record transition project at Kingston Public Hospital • Diabetes Management Center with WellCell Inc and Mona Clinical Research Center • Microbiome Research Training Program planning with UWI and UB/SUNY Schools of Dental Medicine
Depression, Anxiety, Substance Use	• Formation of a UB/SUNY – UWI Behavioral and Mental Health Research Working Group • UB/SUNY, UWI Mona and NYS Center for Discovery to plan Autism Spectrum Disorder research. • Cannabinoid Sciences and Substance Use research planning

1. Captures challenges of working across two university systems
2. Identifies strengths and novel approaches to building capacity
3. Links outcomes to SDGs – therefore measureable

A Growing Consortium

- New Initiatives
  - Schools of Management – Sustainable Development Projects
  - Microbiome Research – Schools of Dental Medicine
  - H3E Caribbean Genomics Initiative – Harvard collaboration
  - GVN Emerging Pathogens Working Group
- New Consortium Participants
  - Roswell Park, Rush, Stanford, Case, Tulane, University College Dublin, NAJASO

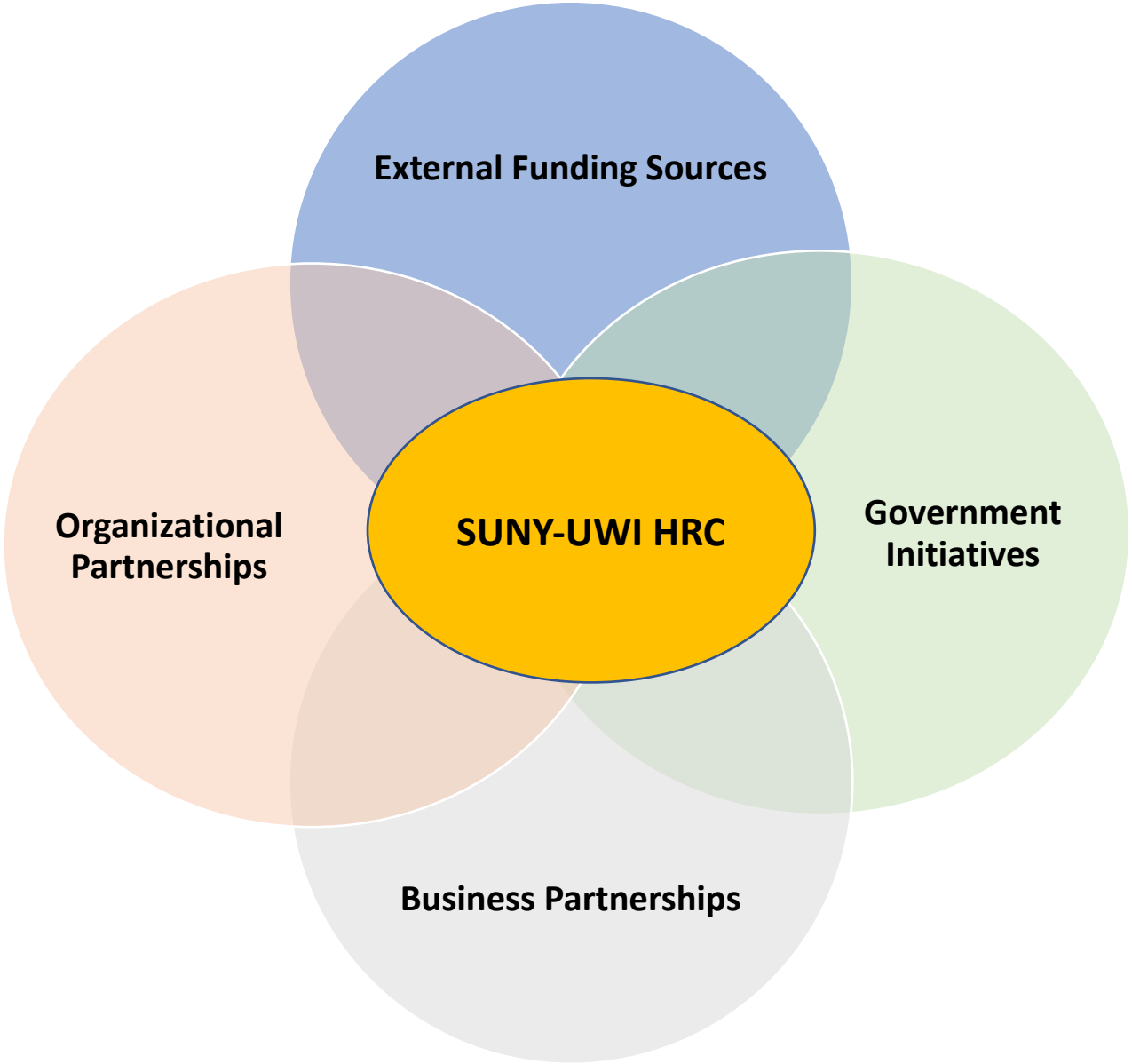
Using a Matrix Approach



SUNY-UWI HRC Sustainable Development

Identify funding mechanisms

- External agencies (grants, contracts), foundations
- Organizational partnerships
- Academic/Business Partnerships
- Academic/Government Initiatives
- Integrated Sustainable Development Models



Sustainable Funding Model

- Consortium Initiated with in-kind activities, grants
  - Not sustainable, and timelines will be delayed
- Need to catalyse financial input across projects
  - Support development of Clinician Scientists through external scholar funding
  - Simultaneous support for research infrastructure cores (informatics, laboratory, biorepository)
- Create win-win with business development, industry growth, global donors

Acknowledgements

- SUNY and UWI top leadership
- Ministry of Health, Jamaica
- Partner Universities
- NAJASCO
- Business partners
- Dr Alaina Scott

Research Capacity Building in West and Central Africa:

Professeur Oumar Gaye

MARCAD
Malaria Research Capacity Development
in West and Central Africa

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Malaria Research Capacity Development
in West and Central Africa

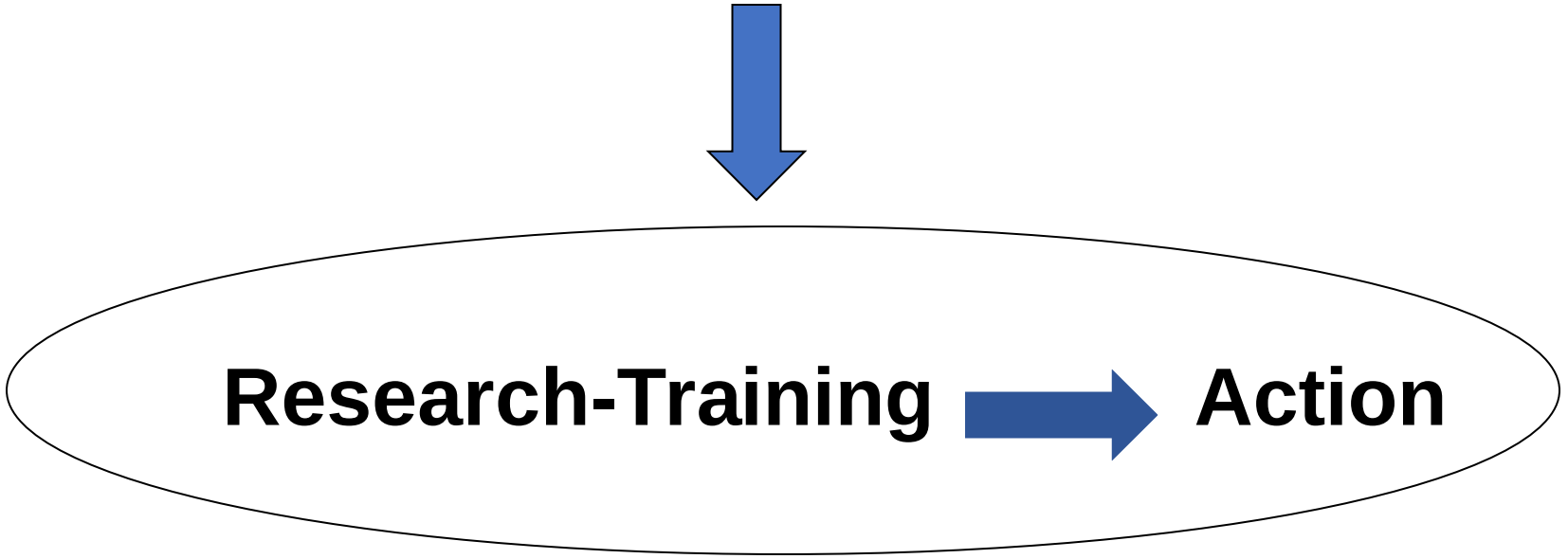
Africa Health Research Strategy: Key Priorities interventions

- Developing human capacity for sustained health research and innovation
- Developing a conducive environment for research and innovation
- . Promoting Sustained Investments and Financing Mechanisms in Research,
- Generating, sharing, and utilizing data to inform and guide decision making.
- Strengthening regulatory systems, Intellectual property and ethics

Definition of research priorities

MoH, Higher Education & Research, Partners

Scientists, Partners, Communities, Private sector



Challenges

- Inadequate Research Financing
- Human ressources, Brain drain
- Weakness Health system
- Climate Change, Demography, Urbanization
- Global economic recession

Developing Excellence in Leadership,Training & Science in Africa (DELTAS Africa)

DELGEME

DELGEME - MALI

MARCAD

MARCAD - SENEGAL

UNIVERSITY OF GHANA

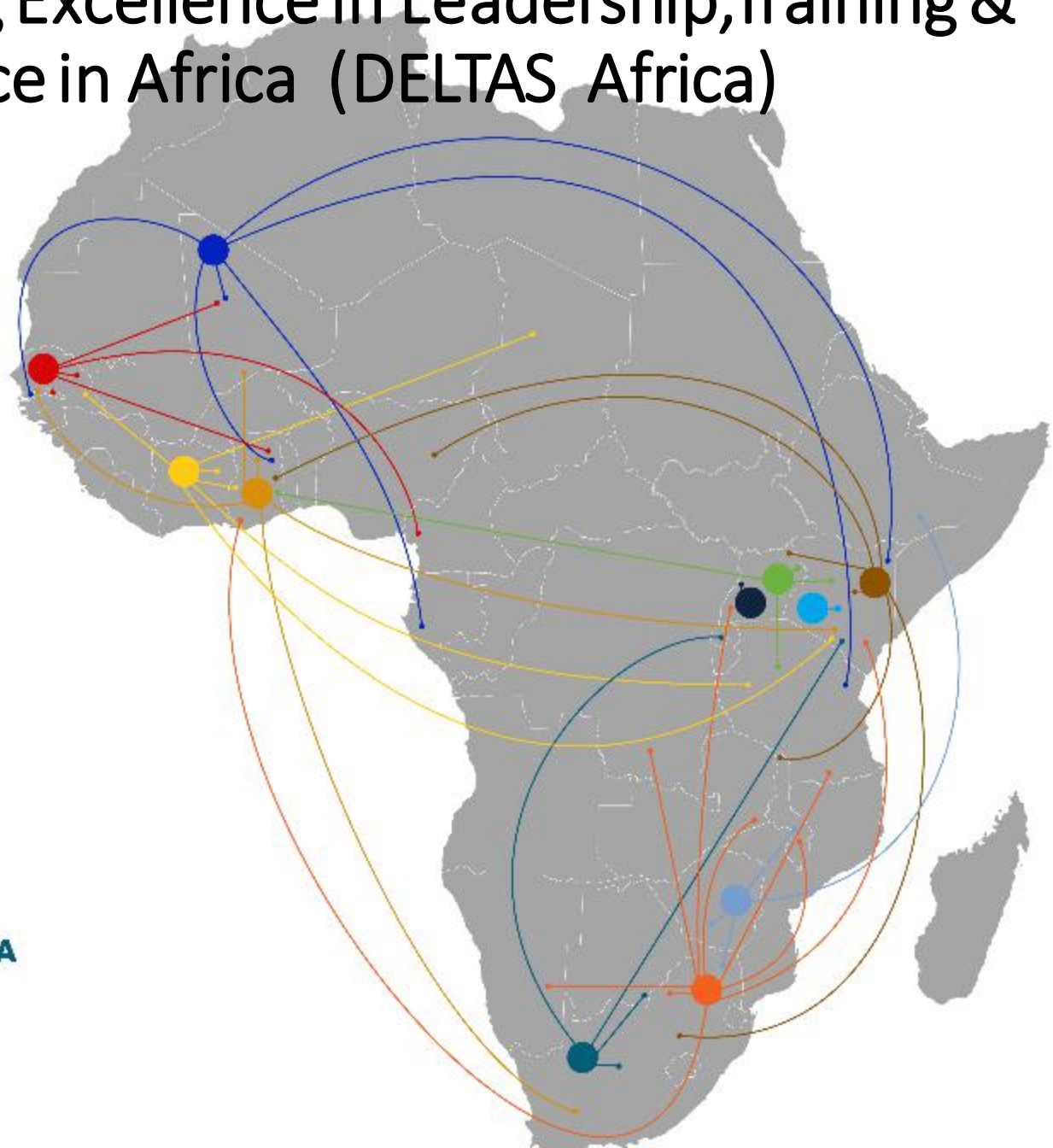
WACCBIP - GHANA

AFRIQUE ONE
CSRS - COTE'D'IVOIRE

SANTHE

SANTHE - SOUTH AFRICA

SSACAB



CARTA

CARTA - K

MUII plus

MUII PLUS

IDeAL

IDeAL - KE

THRIVE

THRiVE -

AMARI

AMARI -

Malaria & NTDs Research Capacity Development in West and Central Africa (MARCAD-Plus)

Supported by

UCAD (Lead institution)

USTTB, MRCG, UHAS, UoY1, BHP, COMAHS, LSTM & Coll

UNIVERSITÉ DE YAOUNDÉ I
Sapientia - Collativa - Cognitio
Cameroun
« une université bilingue à l'image du pays »

MARCAD
Malaria Research Capacity Development in West and Central Africa

Background to MARCAD-Plus

2001 - 2010

GatesMalariaPartnership

Strengthening individuals

2009 – 2015

MCDC
MALARIA CAPACITY DEVELOPMENT CONSORTIUM

Strengthening institutions, and individuals

2016 – 2021

MARCAD
Malaria Research Capacity Development in West and Central Africa

Strengthening individuals research teams and institutions,

Despite progress still Challenges:

Parasite & vector resistance, changing epidemiological profiles, climate change, diseases outbreak, residual transmission, high burden countries

Malaria & NTDs : Impact on the SDGs.

MARCAD-Plus

Strengthening individuals, research teams, institutions and intra-African networks

MARCAD
Malaria Research Capacity Development in West and Central Africa

MARCAD-Plus : Objectives

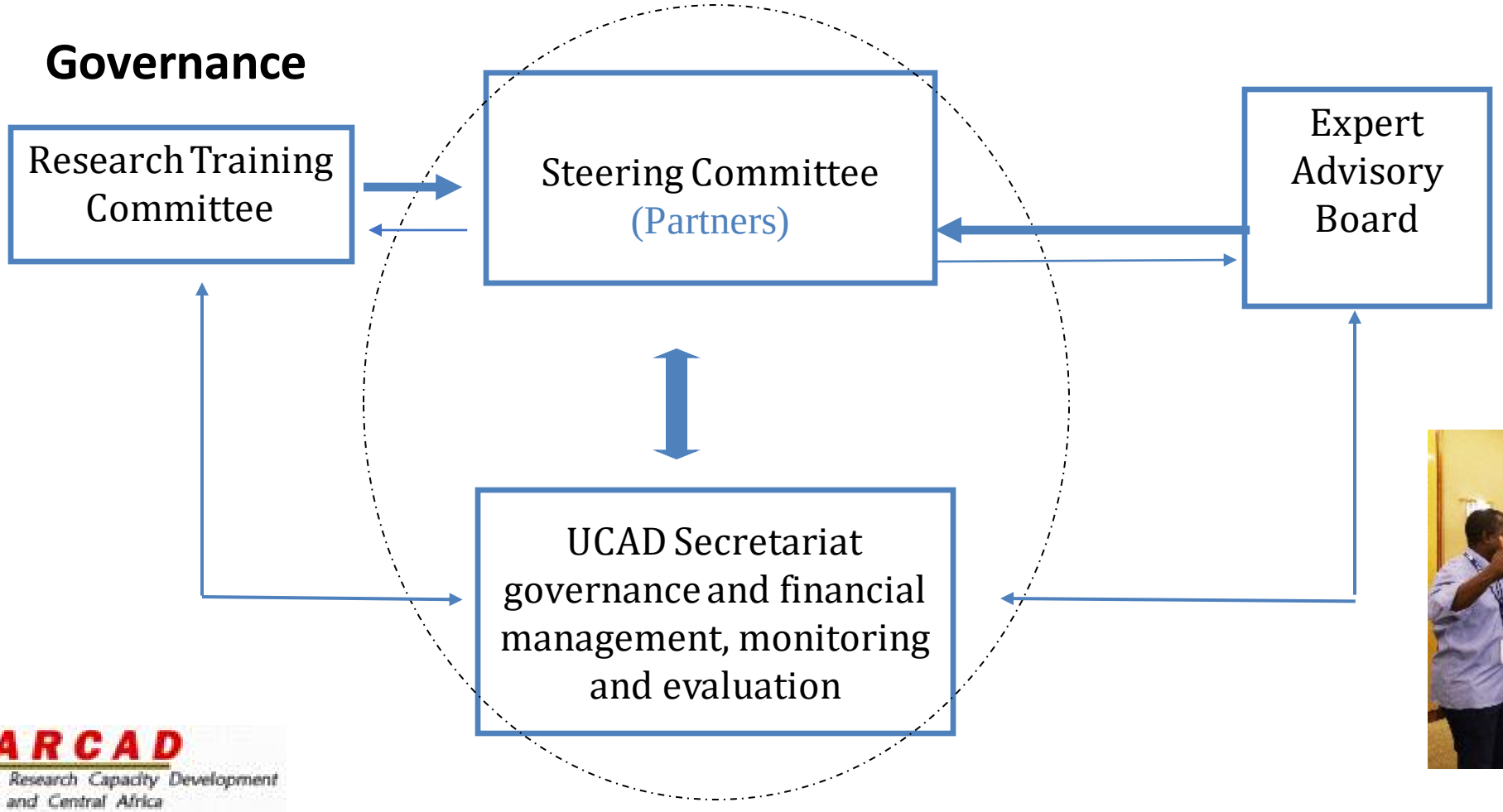
- To Support high quality research in malaria & NTDs
- To develop a career pathway for MARCAD Fellows
- To Strengthen Management & Environment Research
- To Develop a community & public engagement strategy
- To Deliver evidence to support malaria control

MARCAD
Malaria Research Capacity Development in West and Central Africa

MARCAD-Plus : Programme Strategy, Management & Governance

Strategy: **To invest in malaria & NTDs research and Capacity Building ➔ The future African scientific leaders for a positive impact on the SDGs**

Governance



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Malaria Research Capacity Development in West and Central Africa

MARCAD-Plus : Research Leadership

- Recruiting MSc students, PhDs fellows, Postdocs, mid careers researchers: **Gender, Diversity**
- On site courses, short courses (malaria elimination, leadership, biostatistics)
- Workshops (grant writing, data management, risk management, communication)
- Developing research teams in training with Integrated research
- Provision of supervision and mentorship from leading scientists

MARCAD
Malaria Research Capacity Development in West and Central Africa

MARCAD-Plus : Research Management

- Research support office in partner institutions
- Research platform: laboratories, field sites, HDSS
- Supportive and gender-sensitive work environments
- GFGP management, internal & external audit
- Monitoring, evaluation, measurement and reporting

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Malaria Research Capacity Development in West and Central Africa

MARCAD-Plus : Research Management & Infrastrutures

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Malaria Research Capacity Development in West and Central Africa

COLLABORATION AND NETWORK

- WWARN/IDDO
- WAGHA
- DELTAS
- WANETAM-CANTAM
- SMC Working Group
- INDEPTH Network

Data sharing platforms

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Malaria Research Capacity Development in West and Central Africa

Senegal: Map of interventions by stratification, 2015-2018

Incidence ≤ 5‰ popn

MSAT + Active surveillance + SUFI +/- MDA

Incidence > 5 and ≤ 15‰ popn

FSAT + Active surveillance + SUFI

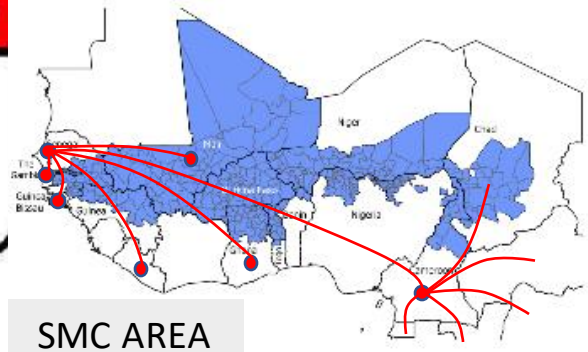
Incidence > 15 and ≤ 25 ‰ popn

SUFI = LLIN, ACT, RDT, IPTp, PECADOM

Incidence > 25‰ popn

SUFI + SMC (if eligible)

Sources PNLP
Fev. 14

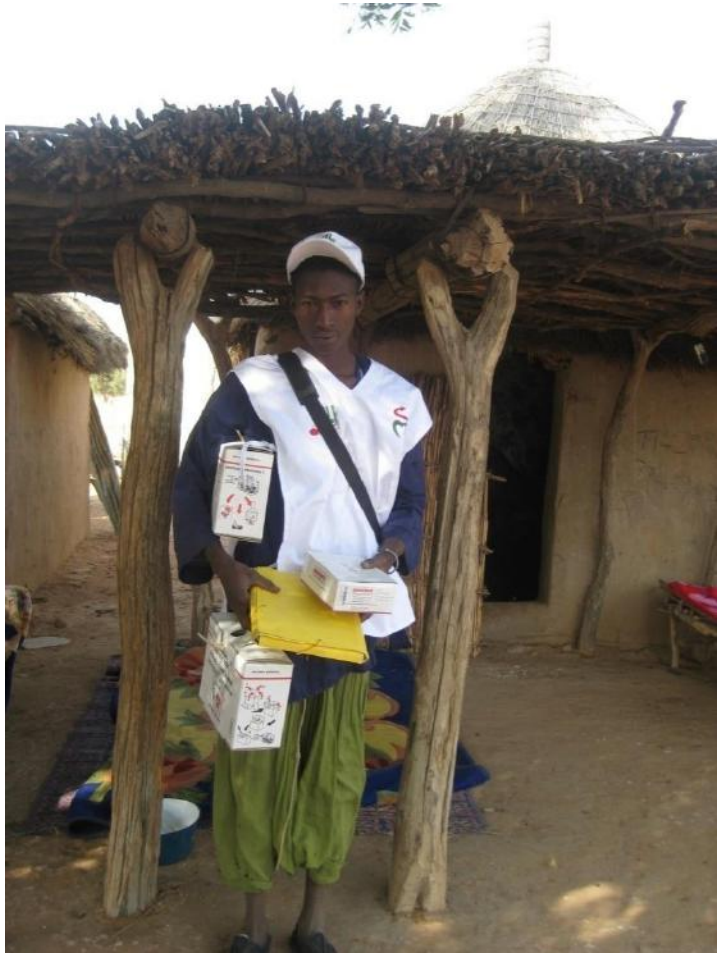


SMC AREA

BEDNET

SWARM TRAPPING

Community Case management approaches



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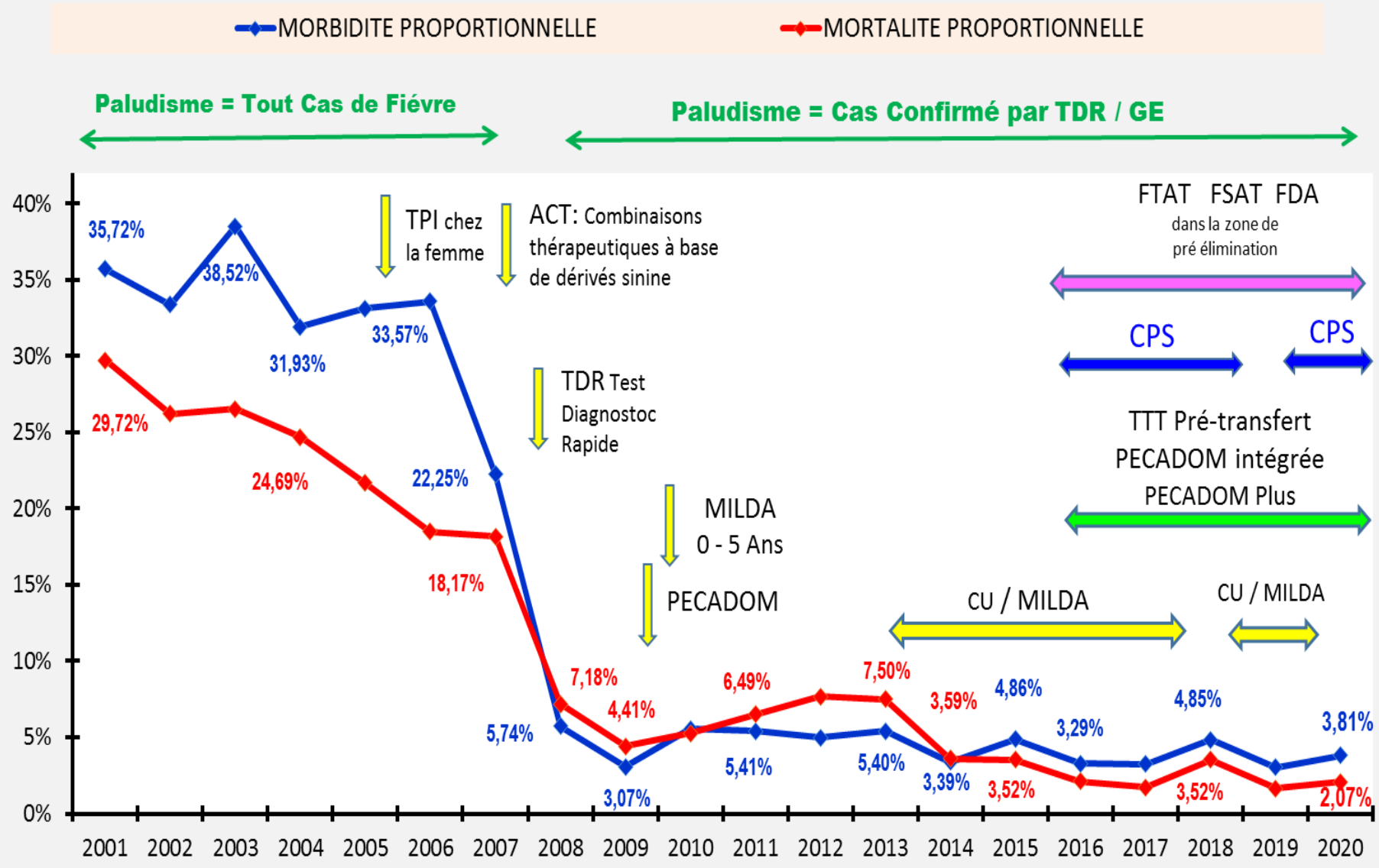
Malaria Research Capacity Development in West and Central Africa

Evolution Morbidité, Mortalité proportionnelle de 2001 à 2020 implémentation des interventions majeures

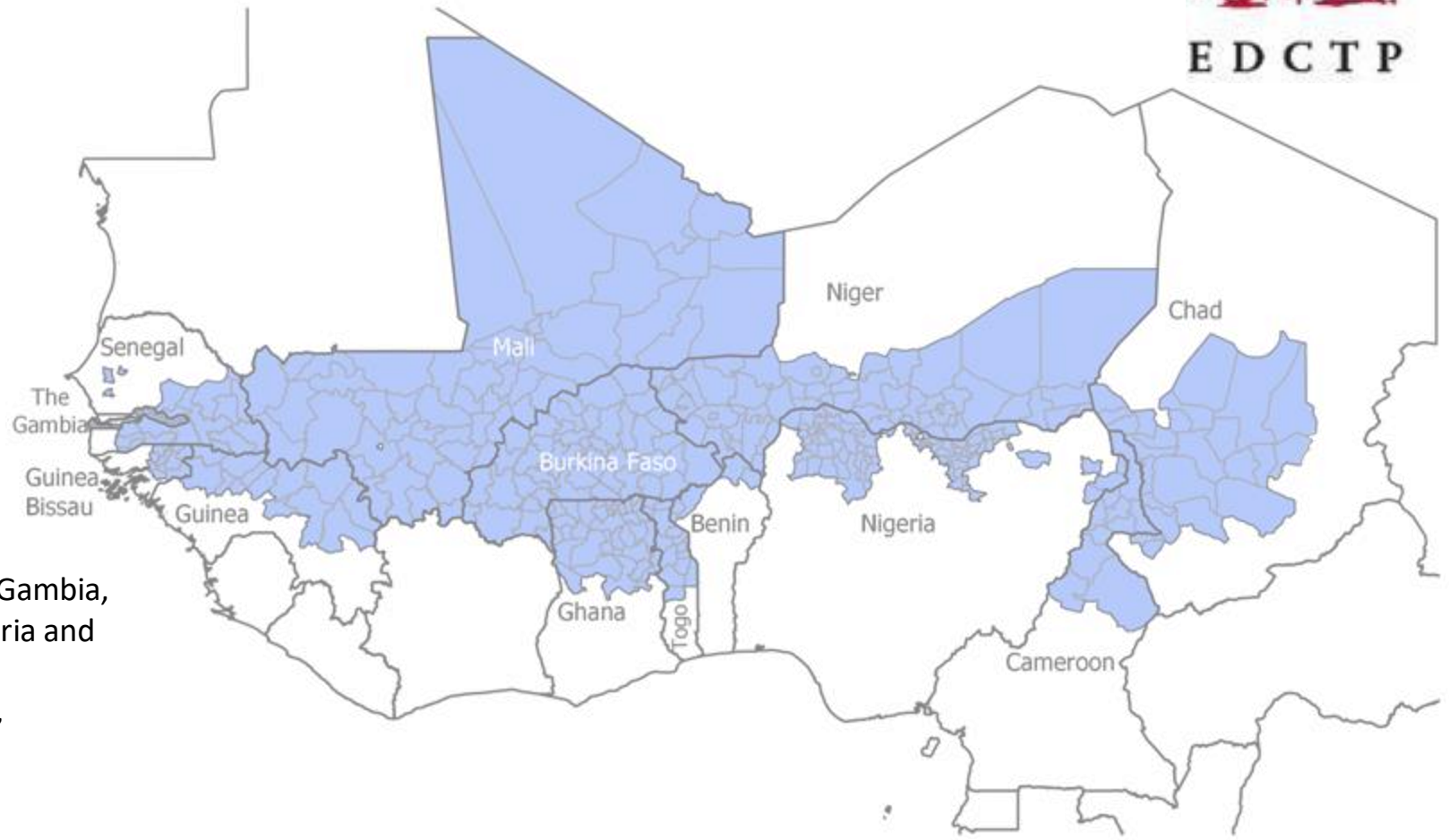


Source RBMME - PNLP

OPT-SMC

Optimizing Seasonal Malaria Chemoprevention in West and Central Africa

EDCTP



NMCPs from Benin, Burkina Faso, Cameroon, Chad, The Gambia, Ghana, Guinea, Guinea Bissau, Mali, Senegal, Niger, Nigeria and Togo

University of Thies : Jean Louis Ndiaye, Ibrahima Mbaye, Amadou Seck, Ndeye Fatou Diop

LSHTM: Paul Milligan, Susana Scott, Paul Snell, Lucy Bell

WHO/TDR : Corinne Merle, Nines Lima

MMV : Andre Tchouatieu, Abena Poku-Awuku

L'HUMILITE MON CHOIX, L'EXCELLENCE MA VOIE
UNIVERSITE DE THIES

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

MMV Medicines for Malaria Venture

TDR For research on diseases of poverty
UNICEF • UNDP • World Bank • WHO

IMPACT: CAREER's PATHs

- Appointements & new positions for Fellows &Faculties
- Highly trained & skilled staff who have been managing grants
- New interdisciplinary teams
- MARCAD teams member of the ACE program with IDA support

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Malaria Research Capacity Development in West and Central Africa

Funding opportunities

- EDTCP, AFD
- AU, WAHO, ECOWAS
- NIH, Fogarty, BMGF
- Wellcome Trust, DFID, Royal Society
- IBD, World Bank
- CAMES PRIZE

MARCAD
Malaria Research Capacity Development in West and Central Africa


ATTESTATION
LE PRIX MACKY SALL POUR LA RECHERCHE
PREMIERE EDITION 2020
EST DECERNE AU
PROGRAMME THÉMATIQUE DE RECHERCHE DU CAMES EN SANTÉ
(PTRC-SANTÉ)
POUR SON PROJET FÉDÉRATEUR INTITULÉ
« AFRICAN LIFE STORY OF COVID-19 (ALSO-COVID 19) »

LESSONS LEARNED

- Taking leadership in African-led research
- Engagement with communities and stakeholders is important
- Establishement of good research environnment.

- High consideration of career'paths
- Advocating for increased funding for higher education and research
- Advocating for sustainability

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