

CARTA News

The Newsletter of the Consortium for Advanced Research Training in Africa



CARTA'S RESPONSE TO THE COVID-19 PANDEMIC

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Consortium for Advanced Research Training in Africa

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*Investing in research for
sustainable development*

Editorial team: Florence Sipalla, Marta Vicente-Crespo, Michelle Mbutia and Evelyn Gitau

Addressing inequalities globally is key in combating the COVID-19 pandemic

Interview with Prof. Sharon Fonn – CARTA Co-Director by Florence Sipalla, Communication Manager, APHRC

The occurrence of the COVID-19 pandemic has disrupted many organizations, institutions and professional lives of researchers globally. The social distancing regulations necessitated closures of universities and limited physical meetings such as workshops and conferences. In the interview, Prof. Fonn highlighted how CARTA is adapting to the pandemic, her contribution to efforts to address it and ideas on how to cope with the unexpected changes that the pandemic has brought to society, where the inequality fissures have been further exposed by the onset of COVID-19.

1. How has the COVID-19 pandemic affected CARTA's operations, and what has been done to adapt to this new normal?

First and foremost was answering the question 'are we putting anyone at risk?' and then trying to mitigate those risks. Working from home was one strategy. But we also made changes to our March 2020 Joint Advanced Seminars 1 and 4. We began with information about COVID and how to keep safe- no handshaking, disinfecting hands and surfaces, talking louder and being further apart, and who to contact if one felt ill. We also adopted learnings from previous JASes and we use some remote learning methods.

We spent a lot of time understanding the implications for each of our more than 100 current PhD candidates and Post-Docs. We have been providing them with writing support online so that they can continue with their research and meet the relevant milestones. This is also the case for those that are in their analysis and writing phase. However, researchers collecting data are stuck and we have to adjust funding, monitoring, and how to support fellows to deal with this new change. This has been a huge additional workload for the CARTA Secretariat.

A very big aspect of the PhD training component of CARTA is our Joint Advanced Seminars – tacit learning (peer to peer), alternative pedagogies to promote agency are fundamental to CARTA JASes. We are working hard to assess how we maintain our values and the quality of what we do and yet use remote learning. There are very many balls in the air and we are all juggling them as fast as we can.

2. What is the role of capacity-building programs like CARTA and the existing and needed capacity for response to COVID-19, particularly on the African continent? Where are we, where should we be and how do we get there?

What has been remarkable is the degree to which CARTA graduates have been drawn in to national responses to the COVID19 pandemic. We have written two papers that describe what CARTA institutions have been doing to support national efforts and it is very significant. The one highlighting the importance of science preparedness for health emergencies in Africa has been published by BMJ journal.



Professor Sharon Fonn

Photo credit: University of the Witwatersrand

The pandemic has underlined how important national resources (from supply chains to high level analytical skills) are required in every country. It has also underlined the importance of in-country high quality research institutions. These bodies have been central to national responses. African governments and the international community cannot help but acknowledge this and make greater investments in research going forward. Countries must be prepared for the next emergency and central to that preparedness is ensuring that they have the necessary skills at the highest levels.

3. How has the COVID-19 pandemic impacted on your professional and personal life? What tips would you share with the CARTA community on adapting to the new normal?

Patience with oneself and others, acknowledging that living with uncertainty is difficult, some humility, trying to have a system – these are all important things to try to cultivate. The most immediate satisfaction has come from just helping someone else, sharing what you can with others. For me another factor has been being able to contribute on national committees; it has helped me feel like I am also doing something.

4. Parting shot?

I think there is much we do not yet know. I want to be alive over the next 10 years (at least) to be able to carry out, and read about, research that will allow us to clearly understand what constitutes better responses. I also think that this period has shone a spotlight on social class and how it determines the impact of this pandemic (and other emergencies).

We need less talk and more action – like holding those with power accountable. If there can be anything positive out of this emergency, then decreasing inequality may be it. Internationally, like-minded people must act for huge change in the world order.

Sub-Saharan Africa needs to plug local knowledge gap to up its anti-COVID-19 game

By Alex Ezeh and Sharon Fonn



Photo credit: APHRC/ Mburthia

The Nairobi skyline

Africa remains one of the regions least affected by COVID-19, although evidence suggests it is an evolving and growing pandemic. It is now present in all African countries and territories.

From the start, the responses across many African countries have mirrored those of other countries where the pandemic has been more prevalent. These measures generally include the promotion of social distancing and personal hygiene, lockdown orders, and management of more severe cases in hospitals. Other responses, such as contact tracing, testing, and isolation of suspected cases, have been used less widely.

The implementation of lockdowns has created major challenges for governments and citizens alike. Local realities – such as urban slums – make the spread of the virus more likely and social distancing almost impossible. Lockdowns in these settings pose very high economic risks for the residents.

Given local conditions in many of Africa's urban areas – including high density slums and informal settlements – lockdown strategies are proving to be unworkable.

Part of the disconnect between the current responses and the current realities of many Africans stems from the limited engagement between policy decision-makers and African institutions generating contextual knowledge. Some examples are the lack of an adequate notice period before lockdowns and the limited consideration given to the situation of slum residents.

The gaps in our current knowledge of the course of COVID-19 in Africa make things even more difficult.

We don't know what accounts for the very low numbers of cases in most countries. Is it a reflection of very low testing capacity? Or rather, of Africa's very young demographic profile? Or is it simply that we are in the early phase of the pandemic?

Each of these possible explanations will demand different policy responses.

Now more than ever, African governments need their scientists and their scientific institutions to provide insights and guidance. They are turning to these local institutions for help in managing their responses to the pandemic. Unfortunately, many years of neglect and limited investment have created capacity gaps. Where capacity does exist, it is being used, though it remains inadequate. The extent of this is being documented by a network of academics across the continent.

African scientists are not able to deliver what Africa needs because governments have starved their institutions of crucial funds for many years. The result is that governments are importing wholesale what is being done elsewhere.

What's missing

Africa's experiences in managing other recent and ongoing epidemics could be an advantage in responding to COVID-19. These epidemics include cholera, measles and viral haemorrhagic diseases like Ebola virus disease, yellow fever, dengue, Lassa fever, and Rift Valley fever. The potential is there, but strong research institutions and systems are needed to activate this advantage to inform timely local, national and global responses to the COVID-19 pandemic. These, unfortunately, remain underdeveloped. The use being made of the resources that do exist only underlines the need for the science and research systems in Africa to be strengthened.

For example, there has been a glaring lack of ongoing rigorous studies of the pandemic on the continent. Of the 2,032 clinical trials related to COVID-19 registered by 14 May this year, only 35 included study sites in Africa. Of these, 23 were in Egypt and only 12 included a site in a sub-Saharan African country. Seven of the 12 were internationally led multi-country studies. The remaining five were in Nigeria and South Africa.

Additionally, the 12 clinical trials involving a country in sub-Saharan Africa are extremely limited as most are looking at hydroxychloroquine, while another is looking at traditional medicine.

This pattern positions Africa to remain a consumer of knowledge and solutions produced elsewhere.

And, during this period of a global pandemic with critical shortages of life-saving resources, Africa is losing because it lacks the capacity to produce what it needs and what others may need.

What needs to be done

What key actions need to be taken?

The first lesson for Africa is that it cannot continue to depend on international and multinational agencies to determine the path it takes to development. We must reverse the limited investments in local and regional research institutions and universities. Countries must do more to attract their best minds, many of whom have been forced, over the years, to leave Africa.

As we look towards a post-COVID-19 world, investments in strengthening local and regional knowledge-based institutions will be key to enhancing the continent's global relevance and competitiveness.

And we need to understand where we currently are in the course of the pandemic. This requires clarifying the drivers of current low levels of reported infections and deaths. Achieving this will require coordinated serological antibody surveys across countries with different epidemiological profiles of the pandemic. These surveys would be a game changer.

At the moment countries are only doing antigen tests. These tests are positive if a person is currently sick with the virus. Once the person is better, the test will again be negative. Antibodies, however, last longer in people who have contracted a virus and will be positive in asymptomatic people as well (it is not yet known for how long). An antibody survey would involve selecting a sample of people who are representative of the entire population and testing them. This will show how widespread the infection has been in a given population.



Photo credit: University of the Witwatersrand

Such antibody surveys will show who has had the virus – and therefore has built antibodies (some kind of immunity) to it. This will be key to formulating appropriate context specific responses to the pandemic. And it would help us understand where a country's responses to the pandemic have been appropriate.

These surveys could show us, for example, if the lockdown policies have been beneficial, or if there have been very widespread infections but with mild morbidity and very low mortality, perhaps due to the continent's young age profile. This would mean the quarantines and lockdowns have come at a high price with less than anticipated benefits.

Combining such surveys with community studies that include verbal autopsies – interviewing people who were close to the person who died, and from this deciding the cause of death – could show if the lockdown is leading to increased mortality within communities that are not being captured in our accounting of COVID-19-related deaths.

Understanding the extent of the spread of COVID-19 within urban and rural Africa can also help with the adaptation of policy responses to a specific setting. This is urgently needed as many countries are in the middle of their rainy season when most villagers cultivate their farms. Disruptions in farming activities, coupled with the effects of climate change-related floods and an ongoing locust epidemic in East Africa, could spell an uncertain future for hundreds of millions of people as they begin to face massive food insecurity.

Evidence from such studies can help countries calibrate their national responses to the pandemic.

In the long term, we must be better prepared to deal with future pandemics, and that preparation needs to start with a re-assessment of how we invest in and support local research and service delivery institutions across Africa.

This article draws on contributions to Drexel University's Webinar on "The Global Impact of Pandemics"; the African Development Bank's Global Community of Practice Webinar on "Enhancing Resilience in African Economies: Macro-Economic Policy Responses to COVID-19 Pandemic in Africa"; and the Think-20 Engagement Group and Global Solutions Summit Panel on "The Social and Economic Implications of Covid-19 Pandemic and Beyond: Risks and Opportunities for the Global South".

This article was first published by The Conversation Africa.

CARTA News Highlights

Vice Chancellor's Meeting

In April 2020, CARTA convened a virtual Vice Chancellors' meeting in April 2020 to establish how each institution has been affected by the COVID-19 pandemic; to determine how each institution was responding to the situation at hand; and the progress

being made to provide support to post-graduate research programs during this difficult period.

Training

In May 2020, CARTA successfully offered the Good Financial Grant Practice (GFGP) training virtually. The course participants were finance and

grant managers in CARTA partner institutions.

The Secretariat is also in the process of engaging a consultant to guide on how we can transition our training from face-to-face to virtual spaces, including identifying and investing in the most appropriate virtual platform.



Screenshot of the virtual CARTA VC's meeting. Top left: Professor Adam Mahomed Habib, Vice Chancellor of the University of the Witwatersrand and hosted and chaired the virtual CARTA VC's meeting. Top right: Professor Barnabas Nawangwe, Vice Chancellor of Makerere University addressed the participants to share the analysis of the situation in Makerere.

The CARTA family is involved in COVID-19 response in different ways. We highlight the work by CARTA fellows are doing in response to the COVID19 pandemic.



Dr. John Olugbenga Abe,
Lecturer, Department of
Demography and Social Statistics,
Obafemi Awolowo University,
Nigeria - CARTA Cohort 6

By Florence Sipalla,
Communication Manager,
APHRC.

1) How are you involved in the COVID-19 response?

As a demographer, I am involved in Nigeria's COVID-19 response by working towards the development of models that would explain COVID-19 morbidity and mortality patterns across countries. The models will provide answers to questions including:

- What is the relationship between population densities, incidence of COVID-19 and case-fatality rates?
- To what extent does population ageing contribute to the incidence and case-fatality rates of COVID-19?

The study employs secondary data from the United Nations, World Health Organizations and other credible sources and analyses them through appropriate demographic and statistical tools.

This study is important because not much is known about the patterns of the spread of COVID-19, especially, the links between the risks of infection/mortality rates and the characteristics of populations. The models will provide the evidence needed for local and international COVID-19 response programs. Furthermore, this information would be useful for the control of future epidemics, especially those similar to COVID-19. As the lead researcher, I am collaborating with two CARTA fellows: Marcelina Ijadunola, a public health physician (Cohort 6) and Jacob Mobolaji, a statistician (Cohort 8). Besides that, one of the students I am supervising at Obafemi Awolowo University is conducting research on COVID-19 coping strategies and compliance to safety regulations.

2) The world could not have anticipated the disruption occasioned by the COVID-19 pandemic. What are some of the things that were in place that have made it possible for you to adapt your work/research in response to the pandemic?

I was able to adapt my research in response to the pandemic by adopting fitting research methods and making optimal use of online resources. For the study on COVID-19 coping strategies and compliance to safety regulations, we employed an online survey instead of the usual on-site survey



approach. However, getting information among the rural inhabitants and urban poor was difficult as many of them don't have access to the Internet required to participate in the online survey. We therefore decided to limit the study population to workers in formal employment.

3) With the social distancing necessitated by the pandemics, what adjustments have you had to make in your work/life?

The major change is that I now work at home. I found my office more comfortable to work, but access to it was limited because of the movement- restrictions and social distancing. To cope with my 'new work place' I work more at night and very early in the morning when my children are asleep. Many times when I tried to do 'serious' work during the day, my children would surround my laptop and read 'abc...' or '1,2,3' from the screen! Since two of them are under the age of five, it is not safe to completely stay away from them without the necessary monitoring. I sometimes had to drop what I was doing to watch cartoons with them. With the assistance of various online platforms, I now live

"To be honest, I don't think many people were prepared for this pandemic and the effects it has caused. However, I was lucky to have all the equipment necessary to function remotely, including internet access."

– Kennedy Otwombe

with the reality that I don't have to be physically present with my colleagues or students before we can have meaningful engagements.

Kennedy Otwombe, Associate Professor, Perinatal HIV Research Unit, Chris Hani Baragwanath Academic Hospital, Soweto and Division of Epidemiology & Biostatistics, School of Public Health, University of the Witwatersrand

By Florence Sipalla, Communication Manager, APHRC

Kennedy Otwombe has been involved in a number of Corona specific studies coming up in South Africa. These include a clinical trial testing a repurposed influenza drug vs the current standard of care. "Our aim is to see if the drug offers a better treatment option compared with what is currently being offered," says Otwombe. I am also involved in a surveillance study (funded by the HIV Vaccine Trials Network (HVTN) enrolling COVID-19 cases and those testing negative.

In this study, Otwombe and his team will collect data on comorbidities such as HIV, TB and others. The aim being to determine who in their local context is at the highest risk of COVID-19, given the comorbidities. "Through an exploratory study, we are testing bodies at the morgue for COVID-19, besides other things, to determine whether corona-related deaths are occurring at home and being missed and of course if there is a need to quarantine affected families," he explains.

In adhering to the social distancing guidelines necessitated by the pandemic, Otwombe has been working from home, conducting virtual meetings using Microsoft Teams, Zoom and Skype. He has also had a lecture with the Wits Med School postgraduates on Zoom.

In addition to the adjustments in his professional life, on the personal front, Otwombe has been supervising his children as they engage in e-learning, limiting movement outside of the home and only going out for important needs like shopping for food, and having no visitors. "I work longer hours since the times used up in traffic are all ploughed into work," says Otwombe.

On CARTA's contribution to his career growth, Otwombe says:

"CARTA is currently funding a modelling study in which I am the Principal Investigator. The study is trying to determine the feasibility of pooling TB samples for testing and then only conduct individual testing for pools with a positive hit. In theory, this should work out cheaper than running individual TB tests. I was glad that Marta Vicente-Crespo, the CARTA Program Manager on Research Training, sent me an email reminding me to make contact with CARTA in case my budget and functioning is negatively affected by the Corona pandemic and jointly work on a way forward. This was very encouraging and I am glad to be associated with CARTA."

Fellows' News

The CARTA family now has crossed the mark of 90 graduates! We are pleased to congratulate the following fellows who have completed their studies since we reported about graduations on our last newsletter.



Abiodun Olufunke Oluwatoba, Cohort 2, studied Environmental Sciences at the University of Ibadan, Nigeria and graduated in November 2019. - University of Ibadan is her host and institution of registration



Lester Kapanda, Cohort 5 studied Epidemiology and Public Health at the University of Malawi and graduated in March 2020.



Folusho Mubowale Balogun, Cohort 5, studied Pediatrics at the University of Ibadan, Nigeria and graduated in January 2020.



Michael Khumbo Kalulu, Cohort 6, from the University of Malawi whose PhD work was in the field of Environmental Sanitation focusing on development of an intensified decentralized fecal sludge treatment (DEFASST) system for treatment of pit latrine sludge from informal settlements.

Across the continent...



Francis Fagbamigbe, Cohort 3 fellow is part of the University of Ibadan team drawing up the predictive models of the COVID pandemic in Nigeria.



Robert Rutayisire, Cohort 8 fellow from the University of Rwanda is serving as a technical laboratory advisor on the Rwanda task force team against COVID-19.



Sunday Adedini, a Cohort 1 CARTA fellow is involved in COVID-19 response and research on the impact of COVID-19 in South Africa. He leads a team of demographers at the SAMRC/Wits Vaccine and Infectious Disease Analytics (VIDA) Research Unit, University of the Witwatersrand, South Africa. VIDA, where he works, is conducting the first clinical trial in South Africa (and in Africa) for a COVID-19 vaccine. The vaccine trial was launched at Wits University on 23 June 2020.



Maureen Majamanda, Cohort 10 fellow from the University of Malawi is involved in sensitizing the university community on COVID-19.



Macellina Finda, Cohort 7 fellow, is a member of the COVID-19 pandemic task force in Nigeria.



Marjorie Kyomuhendo, Cohort 3 fellow from Makerere University is in research and community outreach activities and preparations for e-learning.

CARTA (Consortium for Advanced Research Training in Africa), ten years on

By Siki Kigongo, Communication Manager

The Consortium for Advanced Research Training in Africa (CARTA) was formed in 2008 out of the realization that individual African universities lack the human and financial resources and infrastructural capacity to tackle the challenges of doctoral training on the continent. CARTA offers a well thought out approach to rebuild and to strengthen the capacity of African universities to produce world-class researchers, research leaders, and scholars.

In late 2019, as part of a reflective process, an evaluation of the programme was carried out. The motivation behind this was to understand what had been achieved since CARTA's inception ten years previously, in relation to its three strategic priorities. These are: sustaining a critical mass of highly trained African scholars at PhD level; advancing graduate training through institutionalising CARTA innovations at African partner universities; and securing the future of CARTA graduates by mentoring them to become leaders in their research fields.

To this end, the CARTA Secretariat and partners collectively identified the key questions, and then divided these between them, allocating responsibility to analyse existing CARTA data and, where necessary, to gather new data in order to answer the questions, except in relation to institutionalisation of CARTA innovations which they contracted out.

Key evaluation questions included:

1. How well did CARTA sustain 'production' of PhDs in partner African universities?
2. How well do CARTA's fellows & graduates demonstrate progress in research careers?
3. Has CARTA had any Influence on African partner's narratives, policy or practice?

4. Did CARTA's particular values, ways of working and relationships facilitate or constrain its ability to achieve its objectives and if so, how?

The most notable highlights from the report include that since its inception in 2008:

- Up to 2019, there have been 9 cohorts, totalling to 220 enrolled fellows
- 87 fellows had graduated by the end of 2019
- By the end of 2018, 140 fellows out of 159 had published 806 articles in peer reviewed journals
- Of the 83 graduates from cohorts 1 to 6, 49 (59%) reported having been promoted
- As at the end of 2018, four women graduates were promoted into positions as deans of faculty and/or heads of department at the Universities of the Witwatersrand, Ibadan and Malawi.

CARTA's activities have progressed broadly, as it has sought to build a vibrant multidisciplinary African academy. Some of the factors which seem to have enabled this progress include: strong, respected and committed leadership; a structured programme plan and implementation roadmap; the capability to attract additional funding for the programme; and a clear focus on delivering change through a well-articulated intervention logic.

As we celebrate its progress, we also look forward to the future of CARTA, as it continues to develop the next generation of the continent's academics.

CARTA is managed by APHRC and the University of the Watersrand.



APHRC Campus and the Great Hall at the University of the Witwatersrand.

Photo credit: APHRC

Photo credit: University of the Witwatersrand

Evaluation papers published in 2020

Title	Author list	Journal
1 Increasing collaborative health research in Africa: Lessons from the CARTA fellowship program	Uwizeye Dieudonne; Florah Karimi; Emmanuel Okutpa; Moses Ngware; Hesborn Wao; Jude Igumbor; Sharon Fonn	Global Health Action
2 Quantifying the cost of in-kind contributions to a multi-donor funded health research capacity building programme: The case of the Consortium for Advanced Research Training in Africa	Sharon Fonn, Jia Hu, Jude Ofuzinim Igumbor, Duncan Gatoto, Adamson Muula, Alex Ezeh	BMJ Global Health
3 CARTA Fellows' Scientific Contribution to the African Public and Population Health Research Agenda (2011 to 2018)	Jude Igumbor, Edna N Bosire, Tariro Basera, Uwizeye Dieudonne; Funke Fayehun; Hesborn Wao; Ademola Ajuwon; Emmanuel Otukpa; Florah Karimi; Daphney Conco; Evelyn Gitau; Sharon Fonn	BMC Public Health

Publications with high readership, 2019-2020

Name	Gender	Home Institution	Article
Mpho Primrose Molete	Female	The University of the Witwatersrand	Interprofessional Learning (IPL) innovation through community site assessments: The faculty of health sciences students' and facilitators' reflections
Joshua Odunayo Akinyemi	Male	University of Ibadan	Does economic growth reduce childhood stunting? A multicountry analysis of 89 Demographic and Health Surveys in sub-Saharan Africa
Emmanuel Wilson Kainoda	Male	Ifakara Health Institute	Preferred resting surfaces of dominant malaria vectors inside different house types in rural south-eastern Tanzania
Beatrice Waitherero Maina	Female	African Population and Health Research Center	A cross-sectional analysis of Kenyan post-abortion care services using a nationally representative sample.
Mary Wanjira Njue-Kamau	Female	University of Nairobi	Compliance with iron and folic acid supplementation (IFAS) and associated factors among pregnant women: results from a cross-sectional study in Kiambu county, Kenya
Marceline Francis Finda	Female	Ifakara Health Institute	Dramatic decreases of malaria transmission intensities in Ifakara, South-Eastern Tanzania since early 2000.

CARTA Publications

(disaggregated by gender, cohort, year and first authors)

486 First Authors both PhD and graduates
(2011-2020)

385 First Authors PhD
(2011-2020)

101 First Authors Graduates
(2015-2020)



All publications

1095



By Gender

463
Female

632
Male

Publications by Gender and by Cohort

Cohort	Gender		Grand Total
	Female	Male	
1	41	211	252
2	69	114	183
3	54	55	109
4	42	107	149
5	51	44	95
6	83	39	122
7	72	13	85
8	30	27	57
9	14	17	31
10	7	5	12
Total	463	632	1095

Highlights from the JASes



A Cohort Ten fellow presents to his peers during JAS1



Cohort Ten fellows during a field visit.



Some of the fellows during the training sessions



CARTA @10
 Consortium for Advanced Research Training in Africa






Investing in research for sustainable development

To mark CARTA's 10th birthday, we will have the following activities:

- Webinars
- Scientific conference

Follow us on social media for up updates on the #CARTA10 anniversary events

CARTA key indicators

	♀ Female	♂ Male
 Number of fellows	131 57%	99 43%
 Number of graduates	41 45%	49 54%
 Total raised in extra funds: (as at June 2020)	\$19,9 million	
 By gender from 2017	9,9 million	4,7 million
 Total publications:	1095	

Consortium for Advanced Research Training in Africa
 African Population and Health Research Center
 APHRC Campus, 2nd floor, Manga Close, Off Kirawa Road
 P.O Box 10787-00100, Nairobi, Kenya
 Telephone: +254 (20) 400 1000, 266 2244 or 26 2255
 Mobile: +254 722 205933, 733 410 102
 Email: cartaenquiries@aphrc.org | www.cartafrica.org

 CARTAfrica |  @CARTAfrica



African Population and Health Research Center

UNIVERSITY OF THE WITWATERSRAND,
 JOHANNESBURG



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