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CERFIG, an African health research of excellence

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Interview done on November 10, 2022 with Noémi Tousignant (anthropologist and Public Health, London's Global University, UK) and Mame-Penda Ba (Political Science, Université Gaston Berger de Saint-Louis, Senegal)

Tousignant & Ba: Prof. Touré, thank you very much for accepting this interview. To start, could you briefly introduce yourself to the readers of *Global Africa*, and explain what makes your career as a public health researcher so special?

Abdoulaye Touré: I am a pharmacist by training. I also hold the Agrégation degree in public health from the Gamal Abdel Nasser University of Conakry (UGANC). I am currently the Director of the CERFIG and I have been the Director-general of the National Institute of Public Health of Guinea for four years. I am at the same a researcher and a public health professoinal. My goal is to ensure that the results of my research contribute to more informed decision-making, which is not at all an easy task.

After my doctoral thesis in pharmacy at UGANC, I worked for almost two years in private clinics before I went to the University of Lyon for a specialisation in public health (master's and thesis). Upon my return to Guinea in 2013, I worked on HIV-AIDS by setting up the first molecular biology laboratories to facilitate access to viral load in collaborarion with Therapeutic Solidarity and Health Initiatives (Solidarité Thérapeutique et Initiatives pour la Santé, Solthis), an NGO acting in support of the Ministry of Health. When the Ebola epidemic started, I participated in the battle against the epidemic through research. My team worked on follow-up care with Ebola survivors. We described precisely the long-term clinical sequelae that were not known, and demonstrated the persistence of the virus. At the time when we started our investigations on site, it was recommended that men should use condoms for three months after recovery. We proved, however, that the Ebola virus was still present in body fluids more than a year after the initial infection. The results of our scientific output guided everyone, including the World Health Organisation (WHO). The latter invited us, for this reason, to participate in thematic groups. The West African Health Organisation (WAHO) and the Africa Centre for Disease Control (Africa CDC) also reached out to us, as well as other researchers who contributed to the preparation of documents or participated in technical discussion groups. So, it was a great experience because, through this project, we challenged the limits of medical knowledge on Ebola. So far, these are the essential references for the knowledge of the virus.

T&B: What do you consider to be the challenges of public health in Africa, particularly those that are not taken into account in public policies, based on the experience of Ebola and Covid?

Pr Touré: For me, the priority is the financing of health research. And this is a major challenge in Africa, because there is no endogenous funding mechanism in our countries in any field, be it agriculture, livestock, environment or social sciences. For research carried out in Africa, funding very often comes from elsewhere, sometimes with a predefined agenda, because they are oriented towards priorities or objectives that do not always coincide with local issues. This leads us to align ourselves with priorities that are not always our own. So, for me, the first challenge is to fund research.

The second challenge is that of infrastructure and human resources for research. Globally, these are lacking on the continent. The proof was during the Covid-19 epidemic that shook the whole world, with almost no production of inputs from Africa. Yet, some countries could have produced tests and vaccines very quickly if there had been quality human resources and research infrastructure, and this would have mitigated the impact of the pandemic on the continent.

A third problem is the lack of a communication mechanism between policy makers and researchers. In general, policy makers only listen to scientists when there is an urgent situation, so it is often when there are disease outbreaks that they try to get a little closer to researchers. So the major challenge is how to make evidence-based decisions on a daily basis. This exchange was initiated during this Covid-19 pandemic. In many African countries, scientific councils have been created. Perhaps one of the current challenges would be to really revive these scientific councils, to extend them to other areas so that these bodies have acess — as was the case during the first year of the fight against Covid-19— to decision makers at the highest level. I was lucky enough to be a member of the Scientific Council in Guinea, and I know that by being part of such a structure, we can ensure that decisions are based on evidence, and that is what has been done. Now that the epidemic is fading away, we hear less about these councils, which were the only real intersection between policy makers and researchers in Africa during the difficult times in the fight against Covid-19.

Finally, we must also consider giving researchers certain decision-making positions; I have seen this, for example, in Côte d'Ivoire — where very often the coordinators of vertical programmes are professors — which integrates science into public health action. On the one hand, researchers must understand that it is by being inside these institutions that one can transform the system and, on the other, policy makers must know that researchers are irreplaceable advisors in certain positions.

T&B: You make it clear that our states have no financial instruments to boost research, but then who funds these research projects that you are conducting, the results of which have been published in leading journals, such as *The Lancet*, *Nature*, and *Science*?

Pr Touré: We are not going to beat around the bush, It's France. Our research projects are largely funded by the French National Institute of Health and Medical Research (INSERM), the French National Agency for AIDS Research (ANRS) — which has now become ANRS-MIE (Emerging Infectious Diseases) — the French Research Institute for Development (IRD) and Montpellier University of Excellence (MUSE). These four French institutions remain our main source of funding. This funding involves collaboration with researchers from these institutions, with whom we co-write projects. However, the collaborations are diversifying: currently, we have a project with the University of Ottawa — funded by the International Development Research Centre (IDRC) of Canada —, the University of Geneva and German teams. In any case, regardless of the partner, we would have serious discussions before agreeing on what needs to be done with a clear vision and move forward if it suits everyone.

T&B: Could you tell us more about the CERFIG project? What were the ambitions at the beginning and was it part of your objectives to create an institutional framework in which you could lead and have more say in the design of research projects and partnerships?

Pr Touré: The CERFIG was born out of the 2014-2016 Ebola epidemic, the largest one in Guinea's history. The whole world was looking at the country. One of the most striking elements was that there was no infrastructure to host research projects on the epidemic. These were therefore developed in mobile facilities in rented premises. This observation led us to believe that an institutional framework had to be created so that the infrastructures could remain at the service of research after the epidemic. With Professors Eric Delaporte, Alice Desclaux, Bernard Taverne, Jean-François Etard, Philippe Msellati and others, we benefited from the financial support of the French Task Force against Ebola and finally the centre was quickly built and equipped in a period of emergency. Today, it is one of the most important centres in the field of infectious diseases, as shown by the number and quality of its publications and its participation in the diagnosis of diseases with epidemic potential (Ebola, Covid, etc.). We also have a vocation for training. Many diplomas have been developed, masters and doctorates, in particular. We have also hosted a number of foreign researchers.

T&B: In this case, was it the context of emergency that allowed you to have a bit more autonomy to direct the research towards particularly relevant issues, or is there an emerging institutional context that allows you to have much more influence at the project formulation stage?

Pr Touré: We are fortunate that the core of the CERFIG is made up of young researchers who did part of their training in the same European universities as our partners. So, whether we come from the North or the South, we are all moulded in the same way, which facilitates exchanges with our collaborators as well as the co-construction and co-writing of projects.

I have witnessed the change in the nature of collaborations, because a critical mass of young researchers is being constituted here: these are people for whom research is more or less demystified, because the same tools and expertise from the North are being developed in Africa. This fundamentally changes the relationship. I think there is a generational change and this has an impact on the very nature of collaboration between North-South or South-South teams. We are still a long way from achieving this because the South is lagging behind

at almost every level, but we are nevertheless seeing a generation coming along that is more demanding, that is more willing to collaborate than to receive, because it has a better understanding of the problems of its community and the scientific knowledge of its time. Let's take the example of molecular biology, which is now completely democratised. Less than 10 years ago, this speciality was the domain of scientists working in state-of-the-art laboratories. This change, both generational and in the nature of the collaborations, may not be very noticeable, but it is happening gradually.

T&B: You mentioned many partners and spoke of diversification of partners, what about partners from the South?

Pr Touré: Our research centre is young but already collaborates with teams in the South. This collaboration is carried out primarily through the network of TransVIHMI Unit centres in Montpellier. This framework allows us to propose projects in consortium with the National Institute of Biomedical Research (INRB) of the Democratic Republic of Congo (DRC), the Centre for Research on Emerging and Re-emerging Diseases (CREMER) in Yaoundé, Cameroon and the Regional Centre for Research and Training in Clinical Treatment (CRCF) in Dakar, Senegal. The creation of the Platform for International Global Health Research (PRISME) reinforces and extends this collaboration with many African teams that are members of the network of collaborating institutions of both institutes (INSERM, IRD) and ANRS-MIE. In addition, we are member of the African and Malagasy Council of Higher Education (CAMES). As such, we work and exchange regularly with our colleagues from many countries on research activities, training, supervision of masters and Ph.D. candidates and participation in examination panels.

T&B: How do you address the issue of dissemination and valorisation of African scientific productions? Don't we need a journal like *The Lancet* or *Nature* made in Africa?

Pr Touré: On this issue, there are, for me, two aspects to take into account. The first is the need to create a public health journal in Francophone Africa. The agenda was disrupted by the outbreak of Covid, but this project could be resumed quickly because discussions were advanced with the main players in research and higher education in this region.

The second issue consists in having many renowned researchers in Africa becoming reviewers, editors, and members of the scientific committees of these prestigious journals. When we see the quality and seniority of certain international journals such as *Nature* or *The Lancet*, we understand why they are currently at this level. When we submit our articles, we are well aware of the relevance of the remarks we receive before these texts are accepted.

To conclude, in my opinion, we need rigorous African journals that will allow authors to progress, advance and excel, and invite major African researchers to join their editorial boards.

T&B: If you were on the scientific committee of *The Lancet* for example, how would you change the view of what is relevant, what is a research result worth publishing?

Pr Touré: Let's take the example of a paper that came out a few months ago and caused a stir. To sum up, it said that we should no longer accept research results from the South in journals without any co-authors from the country, because this is not conceivable, it is data predation. Sharing this principle as a form of ethical code and requiring it for all journals would indirectly contribute to developing human resources in Africa. Indeed, producing publishable results requires rigorous research and, if it is carried out with local teams, it will lead to a transfer of skills. Local researchers will first be able to reproduce what has been done with them, then they will adapt it, develop other initiatives and ultimately improve themselves.

We must also strengthen the ethics committees in our countries, which can also act as safeguards, and ensure that research is a genuine collaboration which, in addition to protecting the individual, allows for the development of local skills. It is really these requirements that will enable research to develop and skills to be transferred.

T&B: Is there a West African network or space, or even a wider Francophone space, in which epidemiologists, virologists and infectious diseases specialists can meet? We rather have the impression that there is a connection between France — or let's say Western Europe in general — and specific countries (Senegal, Guinea, Ivory Coast, Cameroon), but not really a strong intra-African connection.

Pr Touré: I fully share your impression. For 2023, my dream is to create a network of epidemiologists or of specialists to regularly exchange and produce ideas on emerging diseases in the sub-region. We would start with French-speaking Africa, before we invite the Portuguese and English-speaking countries to join. I think this is a real need. After three years of Covid-19, we need to consider the question of a network of researchers in Africa, because we now know that a local threat is ultimately a global threat. I think that we do need to exchange on public health issues within our space and share our experiences. For anthropologists, for example, there is the West African Network Anthropology of Emerging Epidemics (Réseau ouest africain anthropologie des épidémies émergentes, RAEE); similarly, for epidemiologists, there is a need to create a framework for regular discussion on current public health priorities. This collaboration is not very intense, although it should be.

T&B: Since we are talking about Covid-19, this pandemic has also revealed the disaster of the African pharmaceutical industry and our immense dependence. How can we decolonize world health if we depend on other people's medicines and vaccines to treat ourselves?

Pr Touré: As a pharmacist and as a public health specialist, we are challenged in several ways. I was telling you that our countries lack the infrastructure to develop diagnostic tools, but what is valid for diagnostic tools is also valid for medicines. We have seen a lot of anarchy with the arrival of rapid tests that are given by multinationals to avoid taxation and, when you examine them in detail, you understand that some tests have only been evaluated on a few dozen samples. This is almost insulting. The same can be said for drugs. I think that there are initiatives of the African Union that should be collectively supported and strengthened. Everyone should carry the message of Michel Sidibé, the ambassador to the African Union, for the creation of the African Medicines Agency (AMA). This agency could develop central purchasing bodies or local production. I think we need to move in this direction and this should involve pooling resources. Not all countries can develop infrastructures capable of producing quality medicines to deal with epidemics. In the same way that the African Union has created Africa CDC with regional offices, we should think about developing and producing vaccines or certain medicines in countries that are best able to do so today, and then extending production to other countries once the appropriate infrastructure has been developed. If we don't do that, we will always lag behind, and when those vaccines or medicines come to us from elsewhere, we will continue to be under other forms of pressure with negative impacts. If you take the example of vaccines — I won't even go into all the conditions of acquisition, on which we could spend hours on — donor agencies or countries pressured us to use them because the expiration date was close or because it had to be shown that it was this vaccine that was being used in such and such a country because it was good for people, so that all our other activities or our other public health strategies took a back seat. In some countries, they went so far as to postpone child immunisation campaigns because the priority has become "to use up the stocks of Covid vaccines that have arrived and that must not be allowed to expire". This is not acceptable because, when a government does this, its people get the message that essential strategies for maternal, child health, HIV, malaria, measles and other priority diseases are secondary. Covid has become the priority only because of the need to sell the vaccines. So I think now that the situation has calmed down a bit, we need to reflect on all these issues.

T&B: On the issue of gender: where are women in public health in Guinea? Is there a big disparity between researchers?

Pr Touré: It is unfortunate that they are not as visible as they should be at the moment. At the CERFIG, among the people we have been training since 2018, there are many young women who are currently working on their masters theses and doctoral dissertations or doing post-doctoral studies in both molecular biology and anthropology. The road is certainly long, but with the training opportunities that currently exist at the Faculty of Health Sciences and Techniques of the UGANC, we will soon have many female researchers in the different specialities of public health.

T&B: As director of the CERFIG, how do you bring together biomedical and socio-anthropological sciences? What is your experience of interdisciplinarity?

Pr Touré: The CERFIG's work culture is strongly inspired by the experience of the TransVIMI Unit. Our teams at the CERFIG include specialists in epidemiology, clinical biology and human and social sciences. The tripod constituted by biology, epidemiology and anthropology is the basis of all our research projects; this collaboration with the humanities and social sciences is, in my opinion, fundamental.