



Afrique One ASPIRE News

African Science Partnership for Intervention Research Excellence (Afrique One-ASPIRE)/Newsletter N°2, July 2017



Integrating social sciences into health interventions

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Editorial

The need for social sciences in One Health

One Health is rooted in transdisciplinarity



Prof Bassirou Bonfoh,
Director of Afrique One–ASPIRE

Have you ever asked yourself why new health technologies developed by your research meet so many obstacles during implementation in real life and are only reluctantly picked up by communities? If yes, it is time to shift your research paradigm by integrating social scientists into your interventions research team.

Under the One Health approach, Afrique One has successfully collaborated with social scientists for years. In a One Health project in Mauritania, for example, social science studies helped

to shed light on why medical facilities were hardly used by the population. It was puzzling that despite free treatment for tuberculosis (TB) offered at a medical center, cattle herders were reluctant to use the service. Social science research revealed that one of the reasons that kept herders from using the health facilities was that, in their perception, going to hospital was the same, going to die. A second explanation that came out of the study was that, although the treatment was free, going to the centre entailed a lot of additional costs. People had to pay for transport, food and find someone to take care of their livestock in the meantime. These economic and social costs had been overlooked and were not addressed when the conventional TB treatment (Direct Observed Treatment Short Course) was initially planned.

For this new phase, the consortium Afrique One–ASPIRE has recruited 9 social scientists out of 49 fellows so far to support its team of epidemiologists, veterinarians, physicians, biologist, engineers, mathematicians, etc.

We are looking forward to expanding transdisciplinary research and intersectoral collaboration within and beyond Afrique One–ASPIRE.



Prof Bonfoh in the field with social scientists

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Afrique One-ASPIRE in the forefront of integrating social sciences

Global consultation on integrating social science interventions into health operations: WHO and the Wellcome Trust consult Afrique One-ASPIRE



Dr Kathrin Heitz-Tokpa,
Programme Manager of Afrique One-ASPIRE

Over the last decade, health emergencies caused by SARS, MERS-CoV, Zika, avian influenza and Ebola unleashed havoc at a regional level and fear on a global scale. In this context, health interventions have persistently been criticized for ignoring socio-cultural contexts in their response and communication. In some cases, the lack of cultural knowledge about socio-cultural hierarchies, practices of care and burial rites are likely to have delayed to bring infectious diseases under control. Particularly, since the first Ebola virus disease epidemic in West Africa that caused more than 11 000 deaths, the call for integrating social science knowledge into health interventions has reached a new peak.

In the wake of these health emergencies, WHO are in the process of establishing a new guideline for social science interventions in epidemics and pandemics expected to be available by the end of 2017.

Since the beginning of this year, WHO has organized a series of workshops to consult stakeholders. On the 8th June 2017, the WHO jointly with the Wellcome Trust held a consultation workshop in London, on 'Integrating social science interventions in epidemics and pandemics: evidence and strategies'. During the day-long meeting at the Wellcome Trust site in London, social scientists, practitioners and representatives of the donor community identified research gaps and strategies to address the need for more social science insight.

The consortium Afrique One was invited to share the experience of over a decade of inter- and transdisciplinary research. Kathrin Heitz-Tokpa, programme manager of Afrique One-ASPIRE and social anthropologist by training, showed during her presentation how preparedness for zoonotic diseases can be improved with the One Health approach. Under the new grant of Afrique One-ASPIRE, several social science topics are being investigated by a dozen Afrique One-ASPIRE fellows at both community and intervention level. To name but a few:

- Local knowledge and perceptions of zoonotic diseases
- Treatment-seeking practices
- Socio-cultural factors limiting the use of health services
- Communities' human-livestock-wildlife interactions
- Consumption of animal-source food
- Involvement of communities in disease reporting (mobile phones)
- Communication between medical, veterinary and wildlife services
- Frontline workers' experience of integrated interventions
- Identification of cost-effective interventions

'With their longstanding experience, the members of the Afrique One-ASPIRE consortium are in the forefront of integrating social sciences into health interventions'

According to the facilitator of the consultation workshop Dr Gaya Gamhewage, manager of Interventions and Guidance at the Infectious Hazard Management Department of the WHO, there is true political intent among stakeholders to systematically integrate social science interventions into risk communication and operational response more generally.

The Wellcome Trust, the main donor of Afrique One-ASPIRE, has shown commitment to further support social science initiatives as part of its work in epidemic preparedness research. One of the recommendations made at the end of the meeting was to systematically include a budget line for social sciences in every budget for both interventions research and field operations. With their longstanding experience, the members of the Afrique One-ASPIRE consortium are in the forefront of integrating social sciences into health interventions and are well equipped to play a leading role.



ONLINE COURSE

One Health: Connecting Humans, Animals and the Environment » www.bit.ly/2v1fe7X



More than 200 panels offered cutting-edge insight into social science research in Africa during the 7th European Conference on African Studies (ECAS). The biannual conference was attended by over 1300 delegates and took place at the University of Basel in Switzerland from 29th June to 1st July 2017. One of the panels was organized by members of the consortium Afrique One-ASPIRE with social science background namely Gilbert Fokou, Constanze Pfeiffer and Kathrin Heitz-Tokpa (see Figure I).

The panel took stock of social science contributions to One Health in Africa and addressed the following questions:

- How are human-animal-environment interactions shaped by social and cultural processes?
- What is the contribution of social sciences to the control of zoonotic diseases?
- What do we know about transdisciplinary processes of knowledge production in One Health?
- What are insights gained so far? What are knowledge gaps?

Four presentations shed light on different aspects based on research in East and West Africa (see Figure I).

Danièle showed in her presentation how social science approaches

to their everyday practices related to the use of and work with water. Furthermore, her study identified popular beliefs on BU transmission; e.g. BU infection via insect bites or tsetse flies was frequently mentioned. These and other findings about local beliefs and perceptions have long been considered crucial to design adequate health interventions.

Danson presented a multi-perspective picture of community's socio-economic situation at the border to protected areas in Kenya, including practices relating to livestock keeping, farming and hunting of wildlife. His study showed how structural constraints, space and poverty contributed to the fact that people hunted game and consumed possibly contaminated livestock killed by wildlife. Furthermore, he described how meat was handled in these rural areas. Contextualized knowledge about human-livestock-wildlife interactions proved key to a profound understanding of people's actual practices.

The closest contribution to One Health interventions came from Alessia and Daniela's presentation. They presented findings from operational research conducted by the NGO Comitato Collaborazione Medica to improve health among nomadic pastoralists in Filtu District, Somali Region of Ethiopia, applying the One Health approach. Constituted of a transdisciplinary team of social scientists, local guides, a veterinary doctor, a nurse and representatives of health and livestock government offices, the study aimed at bringing all actors involved to the communities to discuss needs and possible solutions. The outcome was a close real-life description of actual practices, needs and existing infrastructures. The transdisciplinary team came out with promising new interventions to address the specific needs and that have the support by all stakeholders involved.

The last presentation was made by Hannah, a founding member of the Anthro-Zoonoses network (www.anthrozonoses.net), acting at the same time as discussant. Taking rodent-human interactions in relation to Lassa fever in Sierra Leone as a starting point, she critically interrogated the production of scientific knowledge in the context of health research agendas that orient themselves on outbreak response. In her comments, she highlighted that social sciences and anthropology, in particular, had much more to offer to One Health than studies about knowledge, attitudes, practices

and beliefs, so-called KAPB surveys. One of the ways forward is to include broader social factors and structural constraints, such as infrastructures into our thinking about the social emergence of diseases.



Social science perspectives on One Health in Africa

CONVENERS

- **Gilbert Fokou**, Centre Suisse de Recherches Scientifiques en Côte d'Ivoire (CSRS), principal investigator and supervisor of Afrique One-ASPIRE
- **Constanze Pfeiffer**, Swiss Tropical and Public Health Institute (Swiss TPH), supervisor of Afrique One-ASPIRE
- **Kathrin Heitz-Tokpa**, CSRS, Programme Manager of Afrique One-ASPIRE

PRESENTATIONS

- 1) **Danièle Konan**, CSRS, fellow of Afrique One: Human and environmental interactions related to the emergence of Buruli ulcer in endemic areas of Cote d'Ivoire
- 2) **Alessia Villanucci/Daniela Rana**, Comitato Collaborazione Medica (CCM): Enhance the health status of the nomadic pastoralists in Somali Region, Ethiopia
- 3) **Danson Mwangi**, Institute of Primate Research, Kenya & Durham University: Life at the borderlands of protected areas: human-animal-environment interactions in Nthongoni, eastern Kenya
- 4) **Hannah Brown**, Durham University: Lassa fever: Animals and health infrastructure in Sierra Leone

DISCUSSANTS: Hannah Brown (Durham University), Brigit Obrist (Swiss TPH)

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Figure I: Overview of the panel

on One Health help to learn more about possible transmission patterns and social variation of exposure to Buruli ulcer (BU) in the environment. Her research revealed that women and children were particularly exposed to contaminated water sites due





Gilbert Fokou is a social anthropologist and researcher at the Centre Suisse de Recherches Scientifiques en Côte d'Ivoire (CSRS) where he coordinates social science research and heads the research group 'Governance and Institutions'. In Afrique One-ASPIRE, he is one of the principal investigators of a research project on Brucella. In this interview, he shares his experience with interdisciplinary research in the field of One Health and interventions research. His research foci are health and livelihoods of pastoral communities and their access to basic social services.

Afrique One-ASPIRE: Why do we need social sciences?

Dr Gilbert Fokou: We need social sciences simply because all sciences, including social sciences, are equally important to understand the scientific reality as a whole. Social sciences contribute with specific methods, concepts and a body of knowledge alongside natural, biomedical and engineering sciences to explain the reality around us and to solve societal problems.

For a long time, mathematics, science and technology have been considered as the main tools for development. However, development is not a linear process dealing with unanimated objects. Development efforts are made by and for human beings with different cultures. The failure of implementation of many scientific recipes, especially in technological transfer and action oriented research, led to a paradigm shift from monodisciplinary to more interdisciplinary conceptions. The mastery of science and technology does no longer suffice to guarantee sustainable development. There is a need to take social sciences into account that are capable of investigating social facts, social and cultural practices, structures of societies, in short capturing the world view of people for whom science and technology are designed.

'there is a need to take social sciences into account that are capable of investigating the world view of people for whom science and technology are designed'

Afrique One-ASPIRE: What do social scientists do?

Dr Gilbert Fokou: Social scientists are equipped with the analytical and communication skills that are crucial for science and innovation. They are important to analyse the acceptability and impact of news, goods and technologies. The recent Ebola crisis in West Africa highlighted the critical role social sciences play in fighting the spread of infectious diseases. In such a case, social scientists contribute to understand people who were suffering from the disease as well as the wider society in which they are living. They help to understand how people's attitudes are shaped towards certain practises and behaviours. In sum, social scientists have the skills to see the world from different actors' points of view, as well as find data that others may have missed.

Afrique One-ASPIRE: What are your own experiences as social scientist within interdisciplinary projects ?

Dr Gilbert Fokou: My first collaboration with scientists from other fields was during my PhD in the Lake Chad area where the Swiss Tropical Institute (Swiss TPH today) and a local research centre (Centre de Support en Santé Internationale, CSSI) in collaboration with the government of Chad have been implementing the project on Health for Nomadic Peoples since the end of the 1990s. The project was based on a One Health approach and consisted of human and animal vaccination delivery to remote nomadic

families. The project relied on interdisciplinary studies including geography, anthropology, biology, veterinary and human medicine, as well as microbiology. The intervention, consisting of a joint campaign for humans and animals, proved to be efficient in terms of vaccination coverage and reduction of costs. However, the social science perspective brought in a new dimension: the institutional aspect.

My own PhD study focused on institutions for pastoral resource management and contributed to view health and wellbeing from

a holistic point of view. Several social scientists were already involved in the project, but I realised that health for nomadic people is closely linked to access to pastoral resources. In a context of weak

institutional arrangements, access rights of mobile pastoralists to pastures and water were not secured. To avoid conflicts, they increasingly moved to remote areas or to neighbouring countries, out of reach of the mobile health team. Solving health problems was important, but regulating access to natural resources with a pastoral code, establishing rules of access and use, indirectly contributed to improve pastoralists' health status. Interdisciplinary and transdisciplinary research with a strong contribution of social sciences allowed to understand social demands of local populations as a whole. In simple terms, this demand was expressed by local populations as follows: their health has tremendously improved through human and animal vaccination. However, there was a need to secure access to pastures and water and access to markets and education, too. This holistic approach led to the design of a more integrated intervention encompassing packages of services for mobile populations including health, access to resources, drinking water, education, markets and information.

Afrique One-ASPIRE: What lessons can be learnt for Afrique One-ASPIRE's intervention research?

Dr Gilbert Fokou: The above mentioned examples show the critical importance of social science in research today and especially interventions research. Social scientists contribute to a holistic view of the scientific reality and help to tackle different societal challenges. Social sciences could offer good possibilities and opportunities to a consortium like Afrique One-ASPIRE, aiming at implementing intervention research to improve living conditions of African communities. Even though the involvement of social sciences is still timid, it is already a good start. However, one should recognise that integrating social scientists in a project is not always a panacea or a guarantee of success. The success relies in the ways scientists from various disciplines collaborate with non-scientists for more adapted solutions to complex social problems.

Qualitative methods in social sciences: What to use and when?



Interview with pastoralists at household level

Social sciences use qualitative and quantitative methods. Here, the main methods of qualitative social science research will be presented. The most common way of collecting data are **interviews**. They allow researchers to get a lot of data in a relatively short time. We can distinguish several types of interviews, from structured to unstructured forms, that differ in terms of openness. For instance, in a questionnaire, the researcher may predefine four possible answers from which the interviewee has to choose one. Or the researcher can give more liberty to his interview partner and

allow extensive answers. Interviews have the disadvantage that research participants have the tendency to tell the researcher what they think is favorable for them, rather than what they actually do. Therefore, social scientists often use **observation** as an additional method in order to document actual practices first hand. However, if people feel observed, they might do things differently from what they would normally do, being called the observer's paradox. To address that, researchers working with an ethnographic approach, use **participation** in the community as a way to allow people to get acquainted to the researcher to the point that communities forget about being researched on. However, this again raises an ethical problem. Research requires informed consent from its participants. **Focus groups** are frequently used in research for development. They allow to explore a topic or new technology with different stakeholders. The general theme is provided by a moderator, but the group setting usually stimulates discussions among participants that reveal local concerns and interpretations. It is important to take social hierarchies in the group into accounting. Women may not be allowed or feel comfortable to talk about certain topics in the presence of men, the chief, etc. To obtain a good set of data, it is advisable to combine the different methods presented.

Zoom on

Brucellosis research activities within Afrique One-ASPIRE

Brucellosis is one of the most common zoonotic infections globally. It is transmitted from livestock to humans through consumption of unpasteurized dairy products or through direct contact with infected animals or aborted fetuses, fetal membranes and vaginal secretions. Research done in Africa have indicated the burden of the disease, however there are some areas that need further investigation to help designing effective interventions towards control and elimination. Nine fellows (2 Postdocs, 4 PhD and 3 Msc students) have been recruited to address the following objectives:

- Brucella host-pathogen association and transmission dynamics in Sub-Saharan Africa (James Akoko-PhD fellow)
- Cultural drivers and treatment pathways related to human brucellosis in the Morogoro region of Tanzania (Caroline Mwhiki-PhD fellow)
- Knowledge and perceptions of pastoralist communities and healthcare professionals on brucellosis in the Korhogo area, Cote d'Ivoire (Stephane Babo-PhD fellow)
- Development and field-testing of novel brucellosis diagnostic tests for human populations and livestock (Abdul Lukumbagire-PhD fellow)
- The role of wild animals in the transmission of brucellosis in livestock and humans (Rosamystica Sambu-MSc fellow)

- The effectiveness of sniffer rats in the diagnosis of brucellosis in humans and livestock (Raphael Mwampashi-MSc fellow)
- Role of different livestock husbandry systems in the spread of brucellosis in humans and animals in Africa (Souleymane Traore-MSc fellow)
- To develop modelling frameworks that help inform the design and assessment of Brucella control options (Coletha Mathew and Richard Yapi-Postdoc fellows)

Below is the conceptual framework for TTP-Brucellosis:

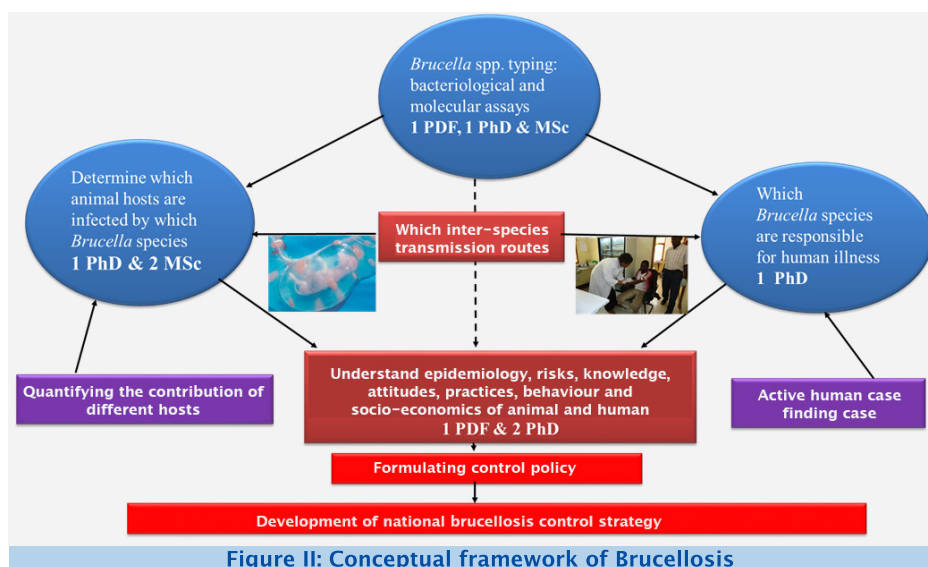


Figure II: Conceptual framework of Brucellosis

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The first issue of the 'Afrique One-ASPIRE News' is still available online www.bit.ly/2vEc6X



We were at the ▶

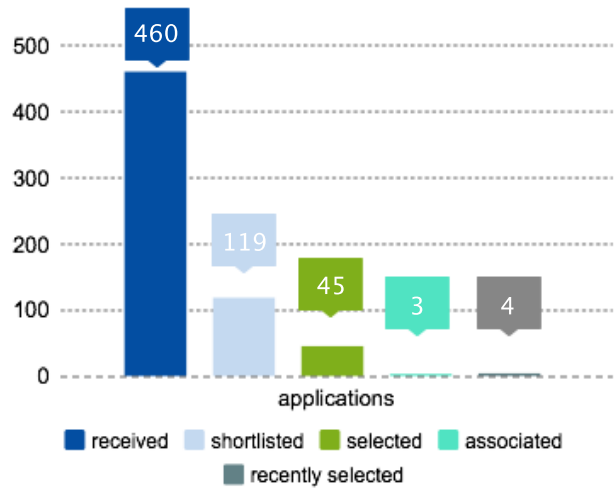
- Japanese – Swiss Ecohealth Colloquium in Basel, Switzerland, the 17th January 2017
- annual retreat of the Swiss Tropical and Public Health Institute (Swiss TPH) in Basel, Switzerland, from 14th to 15th March 2017
- consultation workshop on funeral rites in the fight against epidemics (Ebola) in Abidjan, Côte d'Ivoire, the 29th March 2017
- conference on 'One Health approach for the dairy chain development in Sub-Saharan Africa' in Liege, Belgium, the 29th March 2017
- workshop of the Global Health Security Agenda (GHS)/One Health platform in Abidjan, Côte d'Ivoire, from 4th to 5th April 2017
- working group meeting on India-Africa health science collaboration in New Delhi, India, from 5th to 7th April 2017
- 2nd global partners' meeting on neglected tropical diseases (NTDs) in Geneva, Switzerland, the 19th April 2017
- the Setting up of the multisectoral committee for rabies control and elimination in Bouaké and San-Pedro, Côte d'Ivoire, the 26th and 28th April 2017
- kick off meeting of the 'Supporting Evidence Based Interventions (SEBI)' project in Arusha, Tanzania, the 05th May 2017
- office of the Ivorian Ministry of scientific research and high education in Abidjan for a meeting, Côte d'Ivoire, the 9th May 2017
- 7th Annual Fellow's Meeting of the Wellcome Trust/DBT India Alliance in Hiderabad, India, from 18th to 20th May 2017
- EISMV Scientific Council meeting in Dakar, Senegal, from 6th to 7th June 2017
- Introductory Training on Food Safety Risk Assessment at the University of Ghana from 12th to 13th June 2017
- Africa Center of Disease Control West Africa meeting in Abuja, Nigeria, from 22nd to 23rd June 2017
- Summer School on Food System in Transition in Stellenbosch, South Africa, from 23rd June to 10th July 2017
- 2nd DELTAS Africa annual meeting in Accra, Ghana, from the 3rd to 5th July 2017
- 2nd West African Centre for Cell Biology of Infectious Pathogens (WACCBIPI) research conference 2017 in Accra, Ghana, the 6th July 2017

Recruitment of Afrique One-ASPIRE fellows

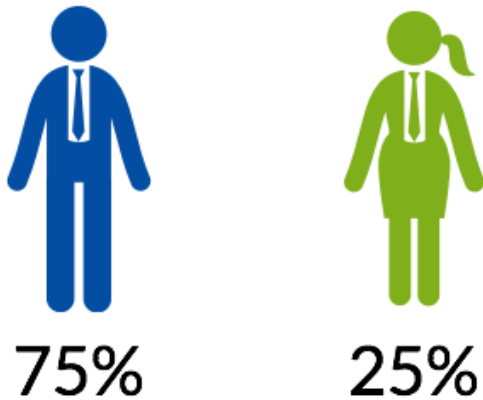
Between October 2016 and February 2017, Afrique One-ASPIRE selected its fellows. One of the challenges was setting up a bilingual review panel.

The final consensus was obtained by aiming for a good demographic balance of the research team (gender, disciplines, languages, geographic locations, countries, institutions, fellows from the previous phase) without compromising the scientific quality.

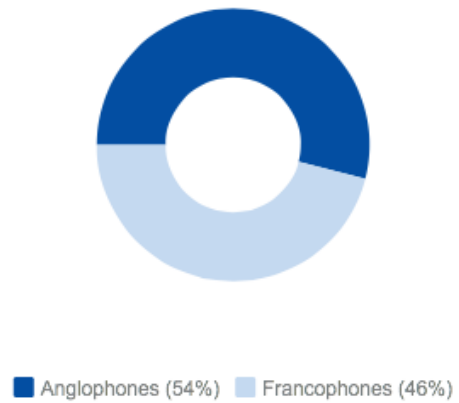
Selection process



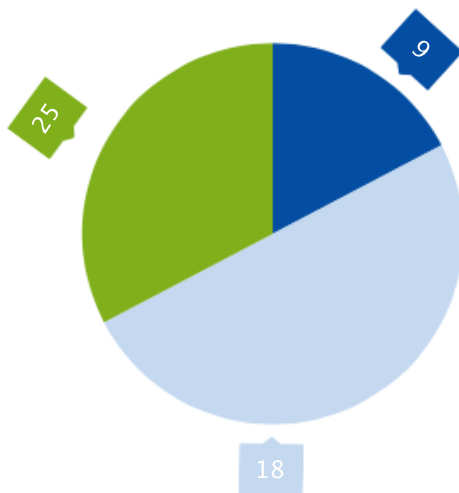
Distribution by gender



Distribution by languages



Distribution by positions



Distribution by countries



Donors

