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**Title: Beyond the biological basis of disease, the intersection of medicine, social sciences, and indigenous knowledge.**

“Type one mamhepo, type two mamhepo... (type one winds, type two winds)” the lecturer’s voice trailed on in the almost empty class with half of the attending students in different sleeping postures. Behavioral Sciences was a mandatory course, but we took turns to skip the classes because we did not find its relevance to medical practise at that time. We were interested in understanding physiology and mastering the neural pathway of the vagus nerve in anatomy. Our lecturers from the different biomedical sciences fueled the stereotype through dismissing social sciences subjects as talk shows and not being medical enough. This was a wrong perception at the time as we highlight in this article that indeed social sciences are an essential foundation of medical practice.

Upon graduation from medical school, we all wanted to show our prowess by clinching complicated diagnoses, to get a standing ovation for mastering the complexity of the human body and get a pat on the back from senior colleagues. Little did we know that we were just embarking on a tortuous journey to discover some nuances of medical practice. It was not long before we found ourselves having to deal with socio-cultural dynamics of illness. We used to get frustrated by how patients delayed coming to the hospital and would not understand why patients would request to be discharged so they can consult traditional healers or to just to go back home to take care of their family despite their ill health. It was a rude awakening that the social sciences course we paid least attention to, was essential in helping us navigate this unfamiliar territory.

In a lot of countries medical education is focused on treating the physical body, though there is growing realization of the need to adopt an ecological model that goes beyond the biological basis of disease. Most African countries teach western medicine without taking into consideration the glaring differences and complexities of our communities. Most African communities are being viewed as homogenous and assumed to have similar risks and perceptions of diseases. This has been the case with development of treatment protocols and guidelines, using a one size fits all approach and recently behind the outcry in many low-income countries around the world after the imposition of lockdowns and other travel restriction measures to combat coronavirus. Understanding [local theories of illness](#), transmissions and implications on the community affected presents a more dynamic framework that maybe useful especially in public health programming.

During colonial times, most African communities were excluded, and the system had a paternalistic approach often regarding indigenous knowledge systems as ignorant and backward. Upon independence most countries continued on the biomedical path with little to no investment in research for better understanding of traditional medicine and practices.

The Covid-19 pandemic has exposed some of these ongoing structural issues through the many circulating conspiracies. The common themes showed a great suspicion and mistrust of western system of medicine

showing that there are many deep-rooted issues that we need to address. Social media was awash with young educated people encouraging each other not to accept covid-19 vaccine trials because of the history of [unethical researches involving black people](#). When Madagascar announced that they had found treatment for Covid-19, people celebrated. Calls for the Covid-19 organics to go for clinical trials were treated with suspicion of trying to drown indigenous African solutions.

There is no known cure for Covid-19 at the moment and the world over is waiting for an effective vaccine. Developing an effective vaccine is only a part of the solution because communities will need to accept and access the intervention. This can be achieved by engaging communities through a non-paternalistic approach and as equal partners. Gathering their views will help us understand what matters the most to them and will shape public health interventions that are acceptable by the very people they are intended for. [Evidence](#) has shown that many well-meaning projects fail because they are rolled out without understanding the peculiarities of [different communities](#) and incorporating them into the theory of change of these projects.

So far, from our experiences of working in rural districts in Zimbabwe, we have had the privilege to listen to many accounts of how traditional approaches are used to prevent illness. One such account is that of snake bites. In one of the communities, family members are inoculated with very diluted extracts of venom from common snakes as they approach summer when they expect to record the most snake bites. While we cannot comment on the effectiveness or safety of this practice, the process is similar to the science behind vaccine production where an attenuated part of bacteria or toxin is given to stimulate an immune response and memory cells to ensure protection when the person is exposed to the actual pathogens. Experiences like this show that there is so much untapped research potential that can be harnessed by appreciating the value of indigenous knowledge and local approaches to healing which, can facilitate making interventions more appropriate and acceptable.

This means medical education should have communities at the core, allowing health professionals to start establishing partnerships and learning from the communities they will work with in the future. We have seen with Covid-19 that the importance of involving communities and packaging information in simple language that they understand was key in empowering them. Lessons can also be drawn from countries like China that have overtime invested in traditional Chinese medicine. African countries also need to invest more in research and development of indigenous knowledge to inform and contribute to shaping the future of healthcare on the continent.