

## HISTORY OF MEDICINE

### Medicine, Empires, and Ethics in Colonial Africa

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#### Abstract

This essay examines the history of European empire building and health work in sub-Saharan Africa, focusing on four patterns that shed light on the ethics of outside interventions: (1) the epidemiological and bodily harms caused by conquest and economic development; (2) the uneven and inadequate health infrastructures established during the colonial era, including certain iatrogenic consequences; (3) the ethical ambiguities and transgressions of colonial research and treatment campaigns; and (4) the concerted and inadvertent efforts to undermine African healing practices, which were not always commensurable with introduced medical techniques. This kind of historical analysis helps us home in on different kinds of ethical problems that have grown out of past asymmetries of power—between people, professions, states, and institutions—that shape the nature of international health systems to this day.

What do we learn about ethics and international health systems when we look to the past? This essay considers this question by examining the history of colonialism in sub-Saharan Africa, focusing on the harms of conquest and on the treatment and research campaigns sponsored by nascent medical services. At over 11 million square miles, Africa is the second-largest continent (after Asia) and was the last massive region of the world that Europeans colonized (between 1880 and 1910). The timing and scale of European colonization matter. This was a period when [germ theories of disease](#) began to predominate in many parts of the world and pharmaceutical treatments and vaccination campaigns were on the rise [1, 2]. It was also a time when hygienic regimes in cities became more uniform [3]. These new ideas and techniques increased people's faith that diseases could be mastered and human lives extended, if only the new knowledge were applied. By exploring the ethical dimensions of medicine in colonial Africa, we can begin to appreciate the moral complexity not only of past interventions but also of international health systems today, given their roots in imperial dynamics. Indeed, historical analysis of the unintended—and the willful—harms produced during the colonial period bring to light various lessons for the present since these patterns linger and continue to affect people's perceptions and practices.

#### The Relations among Conquest, Development, and Health

Politicians from several European countries oversaw the conquest of sub-Saharan Africa at the end of the nineteenth century, dividing the bulk of the continent between the governments of Britain, France, Germany, Belgium, Portugal, and Spain. While their motives varied, they tended to be optimistic about the potential wealth of the new territories in terms of both natural resources and labor pools. They also embraced a vague mandate to “civilize,” “improve,” and “develop” the populations they ruled, setting up governance structures that invested officials, usually unfamiliar with the regions, with far more political and cultural power than most Africans possessed [4]. Health activities took on an exalted role given this ethos of improvement since they were a visible and seemingly uncontroversial way to address the needs of the continent’s people. Unsurprisingly, medical projects often received a significant portion of development funds earmarked for social welfare, and medical personnel made up the majority of employees in the technical services of each colonial state [5, 6].

Yet Europeans’ efforts to ameliorate the health of imperial subjects were typically beset with contradictions both because disease burdens increased and because health conditions were more difficult to control than officials expected. Conquest was violent and disruptive, radically altering landscapes and lives, and producing what medical specialist Patrick Manson aptly referred to in 1902 as a “pathological revolution” in tropical Africa [6]. Manson had in mind certain epizootics, such as rinderpest, which had swept through Eastern and Southern Africa in the 1890s, decimating cattle populations and leading to massive social and economic upheavals [7]. He was also concerned about an ongoing pandemic of sleeping sickness (*African trypanosomiasis*)—a disease transmitted by tsetse flies and fatal to humans unless treated—that had recently broken out in the territories surrounding Lake Victoria, including the Congo, Uganda, the Sudan, and Tanzania [6]. The flies’ habitats had been transformed in the previous decades, bringing tsetse flies into closer proximity to humans and distancing them from some of the animals, especially cattle, on which they normally fed. Thus, in at least some regions, people became a convenient meal for the flies, increasing transmission rates and spreading the epidemic to new areas [8].

Over the next decade, hundreds of thousands of people in the region died from the disease, causing widespread trauma and fear [8]. As Manson would have known, the Belgian, German, French, and British officials on the ground were no more equipped to handle the outbreak than anyone else, given their uncertainty about its etiology and the fact that there was as yet no cure. The Germans and French focused on developing drug treatments, some of which were arsenic-based and near-lethal in effective dosages [6, 8], while the British often chose to [cordon off affected groups](#), using coercive tactics and forcing large numbers of people to leave their villages [8]. Both methods—drug treatment and forced removal—ultimately stemmed the Lake Victoria epidemic, although questions about its causes lingered as did the endemic foci of the disease [6, 8].

Colonial efforts to create export economies had similar adverse effects on Africans' health [9]. Whether people were enlisted in mining, infrastructure, or agricultural projects, they often had few occupational protections and succumbed to illnesses that resulted from their labors. In the mining regions of Southern Africa and the Belgian Congo, for instance, workers experienced sharp increases in tuberculosis rates [10]. In areas of large-scale plantation agriculture, they became more vulnerable to water-borne, mosquito-borne, and worm diseases, stemming from the altered environments [11]. As demand for industrial laborers increased, it also led to massive migrations of men to expanding urban centers in Southern Africa, indirectly affecting fertility rates and prompting concerns that colonial rule was eroding rather than bolstering population levels [12]. A physician touring the Belgian Congo in the 1920s surmised that "the principal cause of depopulation in the Congo is the European penetration itself." Referring to rising levels of disease, infertility, and border-crossings, he continued: "since all of these causes [of ill health] increase more and more as the economic, commercial and industrial development of the Colony increases, the depopulation becomes equally more and more threatening" [13]. Even as officials trumpeted their benevolent ambitions in colonial Africa, they were forced to grapple with illnesses and debilities they had inadvertently caused or exacerbated, hindering state-building efforts and belying their claims to be helping the populations.

Following Paul Farmer's lead, we could call these injurious consequences a form of "structural violence" [14, 15]. The political and economic systems that underpinned colonial rule not only disrupted people's lives and livelihoods but also created enduring inequalities that laid the groundwork for more damage. Physicians working within colonial territories and taking seriously the ethical principle "to do no harm" had to contend with the health problems imperial governance generated, whether they were conscious of its role in producing them or not.

### **Medical Services in Colonial Africa**

Europeans' lofty ambitions to establish far-reaching medical services in each territory were often stymied in practice. Directors of medical departments found it difficult to communicate and coordinate both within and across their territories, making it harder to find solutions to shared health problems. As they were the first to admit, the scale of their responsibilities was daunting. Money was in short supply and the number of trained personnel was rarely sufficient for the tasks [6]. Colonial rule was expensive and, because most European governments believed colonies should generate their own revenue, seldom were there funds necessary to build health services expansive enough to meet people's immediate needs. For several observers, this situation seemed wrong and unjust because colonial rule obliged those in power to care for their subjects [6].

Although many medical professionals understood the financial and staffing challenges, they could not remedy the situation on their own since they played no part in raising

revenue and only a modest role in setting policy priorities. At a meeting of the directors of medical services from across sub-Saharan Africa in 1935, two health administrators from South Africa called the state of affairs “deplorable” and blamed metropolitan governments for their “neglect of African problems” [16]. While they admired the work of the League of Nations Health Organization (an intergovernmental agency founded after the First World War and a precursor to the World Health Organization), they still lamented that “as compared with what it has done for other parts of the world ... the Health Committee of the League of Nations itself has done remarkably little for the African continent” [16]. Theirs was a fair assessment. They could have said the same about the largest health philanthropy then in existence, the International Health Board of the Rockefeller Foundation, which, up to 1951, spent only 3 percent of its total grants on African projects [17]. The double standards at work were not lost on a small number of critics who pointed out that during the interwar period budgets and personnel considered acceptable in sub-Saharan Africa would be labeled “appalling” or “derisory” in Western Europe [18, 19]. Indeed, European governments’ failure to redistribute sufficient funds to African budgets and international organizations’ comparative neglect of African health concerns had ethical consequences of their own, including higher mortality and morbidity rates in sub-Saharan Africa than in other parts of the world [6-12, 20, 21].

In the face of these financial constraints, medical services tended to work in triage mode, focusing much of their energy on problems they deemed critical for human health or economic development (and sometimes both), which meant that [infectious diseases](#)—such as sleeping sickness, yellow fever, syphilis, smallpox, and malaria—received disproportionate attention compared to public health activities [6]. Yet even in [disease-control campaigns](#), good intentions could backfire. Scholars have recently surveyed the many different colonial-era health initiatives across sub-Saharan Africa, concluding that it is “biologically plausible” [22] that these, combined with increases in blood transfusions, played a role between 1924 and 1955 in facilitating the [spread of HIV infections](#) in central and West Africa [22, 23]. Although historians are wary of suggesting a single “smoking gun” for the pandemic since its causes are multifactorial, they do point to the use of unsterile syringes and contaminated blood during the colonial era as being contributing causes [24, 25]. The iatrogenic or accidental nature of these transmissions hardly diminishes ethical concerns about their consequences.

### **Medical Research and Experimentation in Colonial Africa**

Establishing medical services tended to go hand-in-glove with launching research programs on a range of subjects, turning the African continent writ large into a vast arena for experimentation [6, 20, 26, 27]. As late as 1955, a senior British physician at Oxford University, Honor Smith, pointed this out with unqualified enthusiasm: “[I]t is the almost unlimited field that Africa offers for clinical research that I find so enthralling ... problems of the first interest abound, [and] clinical material is unlimited” [28]. Smith’s

exuberance reminds us of how willing outsiders were to treat Africans as unproblematic research subjects, with few topics off limits. Such attitudes raise important questions about informed consent and autonomy, and go to the heart of power inequalities within colonial empires.

For much of the colonial era, there existed no agreed-upon [ethical standards for “human subjects” research](#) [29], nor were there clear methods for how to design and analyze either large- or small-scale trials [30]. Even treatment protocols for both acute and chronic problems, such as infectious diseases and malnutrition, were often developed in an ad hoc fashion with little demarcation between practices considered ethically acceptable and unacceptable [31]. In other words, no consensus existed that crossing an ethical line ought to be a central concern. It is worth recalling, in this respect, that medical research carried out in sub-Saharan Africa was not so unusual or extreme. Only in the decades after the Second World War did European and North American countries begin to establish national and international standards relating to medical ethics, prompted in no small part by the horrors of the Holocaust, but also triggered by a range of [biomedical errors and accidents](#). And not until after mid-century did ethical conversations extend to human subjects research and patients’ rights globally [30–33].

For some investigators and clinicians, these open-ended conditions in colonial Africa created an ethos, in both treatment and research campaigns, that the ends justified the means. If they had to deceive, coerce, manipulate, or even threaten in order to achieve their therapeutic or investigative goals, they sometimes would [34]. Likewise, if the effects of their drugs were unknown, if diagnostic tools and treatments caused pain or permanent debilities, they would choose to use them anyway, guided by the logic that doing something was better than doing nothing [35]. In the case of sleeping sickness research, for instance, medical experts conducted painful lumbar punctures to detect trypanosome parasites and provided drugs that managed to save lives but also caused, for 10 to 20 percent of recipients, blindness, encephalopathy (or brain damage), and even death [8, 36]. People adversely affected during these campaigns had little recourse for long-term care and assistance except their existing communities.

This is not to suggest that medical experts lacked morality: examples also abound of medical personnel showing compassion for patients and research subjects and being critical of methods that seemed duplicitous or dangerous [20, 27, 34]. Nor should we presume that they were all-powerful. Administrators and physicians learned fairly quickly that they sometimes had little control over the people among whom they worked. Invasive bodily practices—such as taking blood, collecting stool samples, or even conducting lumbar punctures—and socially disruptive “solutions”—such as forced removals (to distance a population from an insect vector)—or even vaccinations of children could lead, as officials reported, to “the most stringent protest and opposition” [37]. Opting out was one way for African communities and people to object to colonial

investigations. Indeed, given the paucity of medical personnel on the ground across colonial Africa, participants in such programs had a lot of room to maneuver in shaping not only the work that was ultimately done but also the meaning that they attributed to it [34, 38].

There were also instances when health administrators decided that the uncertain effects of an intervention outweighed the possible benefits. Both immunological and ethical concerns, for instance, drove debates about [malaria control and eradication](#) across tropical Africa from the 1930s onwards. Would it be right, several leading malariologists asked, to attempt eradication when doing so would interrupt the forms of immunity people acquired through a lifetime of exposure and failure would create the possibility for widespread pandemics, especially in areas of intense endemicity? Those who answered yes saw the issue as a question of short- versus long-term tradeoffs: in their eyes, infant and child mortality from malaria, which in places in the early 1950s approached 25 percent of all childhood malaria cases, was already too high a cost to bear [21]. Ultimately, the potential risks and logistical challenges proved too daunting; Africa was largely left out of the World Health Organization's global malaria eradication campaign (MEP), and a range of smaller pilot studies were initiated instead. By the mid-1960s, the global campaign had failed, leading to resurgent malaria in many parts of the developing world in which eradication had been attempted [39]. Having been largely bypassed by the MEP, most African countries faced no such resurgence, but neither did they benefit from decreases in childhood mortality. For some, Africa's omission was thought to be not just the wisest but also the most ethical path. For others, such an omission was yet another example of neglect, lost opportunities, and ethical disregard [21, 40, 41].

### **Medical Pluralism and the Marginalization of African Healing**

A final issue that highlights the thorny nature of medicine across cultures is the way in which colonial states used both civil and criminal laws to challenge and marginalize most forms of African therapeutics. This was true especially for those techniques that fell outside an individualistic and materialist approach to bodily and mental health and stressed connections to ancestors and the spirit world [42]. Yet, no matter how dominant colonial medical systems became in sub-Saharan Africa, they never "entirely usurped other forms of healing practices already present" [43]. In other words, medical pluralism was the norm even when colonial services received the lion's share of resources and legal protections and set the terms of debate for what constituted acceptable medical practice.

Only a small minority of officials and scholars during the colonial era was willing to question imperial policies regarding endogenous forms of healing. These were usually people who had spent considerable time studying such systems—including a number of African professionals and elites—who felt endogenous cultures of care were worthy of

defense [44]. Whether it was right or wrong to undermine African therapeutics, these ideas and practices have endured. Indeed, in the 1950s and 1960s, more and more Africans entered the medical profession and some, paradoxically, became staunch defenders of “folk” medicine because it seemed both cost effective and more appropriate culturally. The resurgence of interest in [“traditional medicine”](#) during the second half of the twentieth century arguably grew out of critiques of the limited reach of state medicine in much of the developing world and a burgeoning awareness, in the midst of the global Cold War, that different therapeutic cultures that had long been stifled or marginalized deserved closer scrutiny. By the end of the century, such insights were even incorporated into ethical guidelines related to “externally-sponsored research ... in developing countries,” which recognized the different harms that could be done in clinical work that overlooked or ignored “alternative medical systems” [45].

### **Conclusion**

The end of colonial rule in sub-Saharan Africa entailed its own forms of structural and real violence. Beyond the military struggles in central and southern Africa, European governments also withdrew medical personnel, cut funding for health services, and allowed disease control efforts to lapse [46]. Political independence intensified people’s optimism and yet the economic and epidemiological challenges remained and sometimes increased. This was especially true in the 1980s and 1990s when intergovernmental agencies, such as the World Bank and the International Monetary Fund, imposed new strictures on many African countries’ revenue streams, a process referred to as structural adjustment [47].

Examining the history of European empires in sub-Saharan Africa highlights the extra-medical factors that have affected health and healing across the continent. Military conquest and economic development were justified on the grounds that they would improve conditions for people in Africa and yet, in many places, they caused considerable harm. State health systems were also typically understaffed and underfunded, making it difficult to fulfill their mandate and raising questions about distributive justice. In research and treatment campaigns, people’s consent was rarely sought, and they may have viewed such medical interventions differently from health care professionals, leading to mistrust, misunderstanding, and resistance and reappropriation. Finally, colonial rule marginalized forms of care and therapy that made sense to many people, forcing specialists of African therapeutics to pursue survival strategies of their own. All of these dynamics reverberate into the present and need to be taken into account in any effort to bolster international health systems.

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