Introduction to the Special Section: Histories of Global Health in Africa

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Highlights

- Current global health endeavors are connected to past biomedical activities
- Epistemic diversity in global health will lead to more effective and ethical programs
- History and vernacular knowledge are crucial for understanding the continent today
- Attention to case studies will create more nuanced global health programming

Abstract

Global health is a multidisciplinary field, yet rarely productively incorporates historical knowledge. Local historical processes, interactions with past biomedical campaigns, and dynamic ecological narratives shape how disease outbreaks, health crises, and international interventions are received and remembered. The residues and afterlives of past interactions influence contemporary understandings. We argue for a broadening of the types of knowledge that are integrated into global health research, interventions, and policymaking by paying attention to project afterlives and better integrating forms of vernacular knowledge. Recognizing, understanding, respecting, and incorporating this knowledge is critical to the efficacy of global health-related interventions and the resulting outcomes.

Keywords

- Global health
- History
- Epistemic diversity
- Indigenous knowledge
- Vernacular knowledge
- Project afterlives

Introduction: Global Health and History Today

Africa frequently serves as a laboratory for global health interventions. Whether in response to extraordinary emergencies such as ebola outbreaks or ongoing scourges such as malaria, the continent has long been a central site of global health research and programming. Current best practices in global health interventions, many of which were initially developed for, and pioneered in, African settings, recognize that robust toolkits for responding to contemporary health challenges require acknowledging the full landscape of health and disease. Yet even the most integrative approaches, such as One Health--drawing on nuanced conceptions of human, animal, and ecological health--often overlook essential forms of knowledge and perhaps especially the lessons that emerge from the past (Craddock and Hinchliffe, 2005; Law, 2015; Nading, 2013). Local historical processes, interactions with past biomedical campaigns, and dynamic ecological narratives profoundly shape how disease outbreaks, health crises, and international interventions are received and remembered. Vernacular knowledge preserves this information in local settings, where it is integrated within cultural knowledge traditions regarding health, healing, and disease. Recognizing, understanding, respecting, and incorporating this knowledge is critical to the efficacy of health-related interventions and the resulting health outcomes. Although perhaps especially apparent in the context of vaccine trials and campaigns across the continent (Schneider, 2009; Renne, 2010; Fairhead and Leach, 2012; Bedford, 2015; Giles-Vernick et al., 2016; Abramowitz 2017; Mutombo et al., 2022), it is also clearly evident in a myriad of examples from the rollout of treatment for HIV/AIDS (Nguyen, 2010; Crane, 2013; Benton, 2015) to the research activities around genetically modified mosquitoes (Beisel and Ganle, 2019). Moreover, historical and vernacular knowledge are geographically specific, making relevant analysis attentive to collective memories and experiences within particular places and communities (Neely and Nading, 2017). Greater emphasis on the importance of epistemic diversity is essential to the future and ongoing efficacy of global health in Africa and around the world.

Contemporary global health endeavors are profoundly connected to the past century of biomedically oriented activities meant to improve health and combat disease. Although global health is a "new" discipline, it is in a direct line of descent from imperial-era tropical medicine, colonial medical interventions, early twentieth-century tropical health and hygiene, and the international health campaigns that followed (Bado, 2006; Brown, Cueto and Fee, 2006; Neill, 2012; Packard, 2016; Worboys, 1976). For reading clarity we use the term "global health" anachronistically. Yet our use of the term isn't meant to erase the many connections and continuities with the past (for more on defining "global health" see Koplan et. al., 2009 and Biehl, 2016). Of particular significance is the fact that global health interventions in Africa have long been characterized by paternalism, hegemony, and mistreatment (Eckart, 2002; Lachenal, 2017; Lyons, 2002; Graboyes, 2015; Webel, 2019). To neglect that global health is an extension of earlier eras, which were characterized by racism and deep inequities, leaves contemporary efforts at risk of unintentionally replicating the past, thereby jeopardizing the efficacy of current and future interventions. The residues and afterlives of past programming, which can extend across generations and intersects with the need to recognize vernacular knowledge as inherently valuable to global health. Here our argument echoes long standing critiques of global health tendencies to categorize local forms of knowledge as inaccurate and "backward" cultural misunderstandings. We argue that historical memory and vernacular knowledge are not obstacles to global health research and programming but rather crucial resources that can significantly strengthen projects and improve their outcomes.

The articles in this special section bring together Africanist scholars with diverse disciplinary backgrounds who work on different diseases in different areas of the continent. Each article presents a case study illustrating the important lessons to be gleaned from the past, as well as the pitfalls of neglecting history and other forms of local knowledge. Taken together they illustrate that history is never simply background information and vernacular knowledge is not just an entry point into problematizing local responses. Rather, they are vital to understanding conditions on the continent today, and necessary for making effective, ethical, and appropriate global health programs for the future. The four case studies are geographically focused on East and West Africa and connect malaria, yellow fever, aflatoxins and rabies in the past and present (Faye and Braun, this volume; Graboyes and Meta, this volume; Mwangi, this volume; Tappan, this volume). Collectively, they present compelling evidence for the relevance of diverse epistemic knowledge in responding to contemporary global health challenges and designing projects with long term legacies and local realities in mind.

An Argument for Epistemic Diversity

Global health is a decidedly multidisciplinary field, and yet global health practitioners are often unfamiliar with the crucial relevance of history, or with how to productively incorporate historical knowledge into interventions. Historians working at the nexus of the history of global health, history of medicine and disease, and the history of health and healing (a few excellent examples are works by Alison Bashford, Clare Herrick, and Helen Tilley) have grounded their scholarship in careful place-based research that is highly sensitive to complex local histories and spaces of past health programming. They often arrive at uncomfortable conclusions that challenge positivist discourses around global health. Key examples include Randall Packard's recent monograph, *A History of Global Health* (2016), which provides a rich historical analysis of important global health initiatives such as the smallpox and malaria eradication campaigns, family planning programs, the push for primary health care, and more recent responses to HIV/AIDS and ebola. Rebekah Lee's (2021) recent text, which is more specifically focused on health and healing in African history, demonstrates how contemporary global health challenges including HIV/AIDs, occupational lung diseases and mental health require a historical approach to be fully understood.

Anthropologists have long integrated historical analysis into their works and the fields of critical medical anthropology and critical global health studies have been particularly astute at pointing to the limitations of current framings of global health (Geissler 2014; Biruk and McKay 2019; Adams 2016; Lakoff, 2010; Prince and Marsland, 2013). In their inaugural volume of Princeton's Critical Global Health Studies series, for example, Biehl and Petryna situate people at the forefront of larger science studies questions, and *When People Come First* is imbued with ethnographic depth and detail, rooted in particular places and times. Anthropologists have also been keen observers of inequities in global health, and there has been focused attention on the "partnerships" on which global health is supposedly based. As Nora Kenworthy, Lynn Hunt, Johanna Crane and Iruka Okeke have pointed out, these partnerships are often inequitable, impermanent, and rooted in the histories of colonialism and racism (Kenworthy et al. 2018; Okeke 2018). Crane's work has been particularly critical in revealing how superficial these international partnerships can be, how African contributions and knowledge are frequently devalued in international science, and how typically global health decisions are made in the global north (2013, 2018) and Gerrets has demonstrated the fragility of these relationships from a historical perspective (2010).

Even economists have sought to recognize, and quantitatively measure, the impact of historical interactions around global health. A series of innovative papers drawing on archival documents about colonial-era biomedical interventions consistently find patterns that relate past participation in coercive colonial vaccination campaigns with lower-levels of trust and voluntary participation in contemporary global health endeavors. Lowes and Montero (2021) find that in present-day Cameroon, Central African Republic, Republic of Congo, Chad, and Gabon, greater exposure to French colonial campaigns reduced contemporary vaccination rates and trust in medicine. Lowes and Montero connect their work to literature examining the "historical origins of trust" and cite papers showing how pre-colonial extractive contact, such as the Atlantic slave trade, continues to have implications for the present (Nunn and Wantchekon, 2011). We applaud the creativity of their analysis and their attentiveness to history, and argue their findings may not be solely about trust, but are also about acknowledging the afterlives of past global health initiatives and interactions.

The reality is that in virtually no place in the world are global health or biomedical activities happening for the first time. Thus it should not come as a surprise that how communities in Africa and other world regions experienced past campaigns affects how they choose to interact with current interventions. We call for a focus on two specific areas in which historical perspectives may make significant contributions: the afterlives of projects and the integration of vernacular knowledge.

First, we ask global health programs to pay greater attention to project afterlives--the time when projects have officially concluded, but when life goes on and only the residue of past projects remain. Attention to project afterlives highlights the lived experience of African participants rather than privileging the chronologies of foreign scientists, and recognizes that official conclusion dates rarely indicate the end of local impacts. Pointing to the many unintended consequences of well-intentioned projects is not a new theme in the history of medicine, and these effects often appear years after interventions officially end. From the creation of a "Country of the Blind" in West Africa when tsetse control increased onchocerciasis (Bannister, 2021), to dried milk distribution and the rise of bottle feeding in Uganda (Tappan 2013, 2017), hepatitis C epidemics in Egypt (Moulin, 2013), and the early amplification of HIV through mobile treatment of sleeping sickness in French West Africa (Pepin, 2011), these and other examples are well known and frequently referenced by historians. Yet compelling case studies detailing the unintended consequences of global health schemes are not reaching global health practitioners.

One example of this gap comes from the 2018 Lancet Commission on Malaria Eradication Report, which argues for a new global attempt at malaria eradication (Chen et al.). In the very first sentence the report engages with the history of the WHO's Global Malaria Eradication Programme (GMEP), and even includes a three-paragraph section recounting "Lessons from the Global Malaria Eradication Programme." However, the 364 references do not include a single historical book or article. Despite having written many article-length pieces and entire books focused on and the history of malaria in Africa and the history of eradication, the preeminent historians James Webb, Randall Packard and Nancy Leys Stepan are not cited (Packard 1998, 2007; Webb 2009, 2011, 2014; Stepan 2013). The report also ignores the scholarship on rebound malaria, which shows that rebound epidemics have been widespread across the globe, and that the most frequent cause is the irresponsible ending of international projects (Cohen et al., 2012).

Taking cues from widespread practices in biomedical research, global health interventions rarely devote energy to the afterlives of a project despite the fact that, as Yonatan Gez and colleagues note, there is often an "overflow" beyond official timelines and life cycles (Gez, 2021; Gez, Fouéré and Bulugu, forthcoming; Fouéré and Gez, forthcoming). There are few mechanisms to continue to monitor what occurs in an area when an intervention ends and no funds set aside in budgets to offer relief or justice for those who might have been harmed. The fact is that even activities that appear to be an unalloyed "good" in the short term may be valued differently over a longer time frame and by future generations. Attention to afterlives entails recognizing that unintended consequences often appear long after formal programs have ended, international organizations have departed, and global health practitioners have stopped watching. It is rare for contemporary programs to incorporate this knowledge in the context of program planning. However, understanding project afterlives is not only critical to assessing outcomes and refining best practices, but also raises important ethical questions about longer-term responsibilities and obligations.

Second, in acknowledging the significance of the historical experiences of individuals and communities on the receiving end of global health interventions, we must better recognize and integrate forms of vernacular knowledge. We use the umbrella term "vernacular knowledge" to refer to African forms of knowledge present on the continent today—knowledge that is based on observation and lived experience as well as the intellectual lineages of healers and specialists. It reflects a body of knowledge that draws on locally present categories, especially ones presented in African languages. Vernacular knowledge forces us to listen carefully to what's being said—the actual terms being used and their connotations (Graboyes, Meta, Clarke, forthcoming). The concept is closely linked to terms used in adjacent fields, such as indigenous knowledge, traditional knowledge, local knowledge, and traditional ecological knowledge (Fairhead & Leach, 1996; Cetina, 1999; Nadasdy, 1999; Huntington, 2000; Bohensky & Maru, 2011). This framing of vernacular knowledge draws especially on work by Mavungha (2018) and Tilley (2011), which rely on the concept in slightly different forms. Mavungha re-integrates African knowledge of sleeping sickness and the *mhesvi* (tsetse fly) in Zimbabwe, by privileging African language terms and epistemic categories rather than colonial ones. Tilley (2011) uses the concept of vernacular science, showing how this body of knowledge was rarely acknowledged and integrated into official colonial accounts. More recently, work by Webel (2019) focuses on "African intellectual words" in the Great Lakes zone, and the changing understandings of the disease that came to be known as human African trypanosomiasis.

There are many sensitive historical and anthropological works that present local understandings of health, healing, illness, and disease--information that can and should be integrated into global health programming. In Botswana, Julie Livingston shows how a local condition, *thibamo,* is often considered synonymous with the biomedical disease tuberculosis but is actually a space of "productive misunderstanding." By paying close attention to vernacular knowledge, what she refers to as "local medical epistemology," and the very particular histories of place, she illustrates important differences in how these conditions are understood, including the fact that *thibamo* is not just about physical symptoms, but also reflects social circumstances (2007). Problems arise when biomedical practitioners assume *thibamo* is tuberculosis and ignore the coexistence of both conditions. Similar findings have been reported for other maladies, and on other parts of the continent. What often looks like an easy translation of a biomedical disease category into a local language often obscures a far more complex reality. In relation to malaria on the Swahili coast, Beckerleg (1989), Graboyes and Alidina (2021), Graboyes, Meta, and

Clarke (2022), Kamat (2008, 2013), Langwick (2011), and Malowany (1997) have all convincingly shown that there are multiple local maladies that overlap with biomedical malaria. From these works, we know that Swahili speakers have a wide variety of options in how they categorize and name these malaria-adjacent conditions. Some of these terms refer to etiology (*homa ya mbu*—mosquito fever), or specific symptoms (*malaria ya kichwani*—malaria of the head), severity (*malaria kali*—severe/fierce malaria), or the demographics of the patient (*degedege* only occurs among young children). Similar findings have been found in West and Central Africa. The careful historical and ethnographic work of Giles-Vernick et al. (2011) convincingly demonstrated that in Burkina Faso, the term *sumaya* (cold fevers) is a local disease category that is deeply rooted in local ecological conditions and colonial encounters.

Embracing vernacular knowledge demonstrates a commitment to decolonizing knowledge and reversing global inequities and results in better outcomes, as vernacular knowledge is rooted in the histories of past interactions, activities, and lived experiences. Recognizing the lived experiences and long histories that exist around particular diseases, around particular interventions, agencies, and places can lead to more sensitive and more effective work. There are excellent examples of how efforts to capture the complexity of local moral frameworks and lived realities could result in more successful global health projects. Expansive edited volumes, such as that by Farmer, Kim, Kleinman and Basilico (2013), set an example for how to do place-based, inter-disciplinary and historically-oriented research around global health. Bingham et al.'s work in Mozambique explores how the distribution of a malaria vaccine could adopt an approach that reflects local ideas surrounding access and the overall well-being of households and families (2012). In Kenya, Ojakaa et al., (2011) led community discussions and interviews about a malaria vaccine eliciting information capable of increasing local acceptance and participation in medical and global health projects. This research from Mozambique and Kenya is remarkable in its respect for vernacular knowledge

Unfortunately, these approaches are not representative. Far more frequently, global health engagement with vernacular knowledge remains largely superficial. It is common, for instance, to mention the local term for a disease, without delving with any depth into the meaning, definition, or context. There is often a utilitarian underpinning as knowledge is frequently collected solely to encourage participation or behavior modification. These superficial presentations of vernacular knowledge often rely on implicit or explicit binaries between appropriate and inappropriate forms of knowledge, information that is accurate and inaccurate, views that are correct and incorrect, and behaviors that are compliant or non-compliant. African respondents are frequently discussed in order to demonstrate *inadequate* levels of knowledge, a tendency to *incorrectly* identify causes, or as *uneducated* about symptoms, *ill-informed* of appropriate treatments, and having *misperceptions* that persist. Vernacular knowledge must be engaged with not as erroneous understandings of biomedicine, but on its own terms. Dismissing local ways of knowing as uneducated or mis-informed continues colonial modes of thinking undermining the efficacy of global health programming.

Case Studies in the History of Global Health in Africa

This special section explores these themes through a series of four detailed case studies, each of which is attentive to the cultural and environmental context, the reverberations of accumulated multigenerational histories, and the lived experiences of local communities. Written by scholars with training in History, Anthropology, Geography, Environmental Studies, and Public Health, they employ diverse sources and mixed methods approaches. Through the

integration of archives, oral evidence, and ethnographic observation, histories of global health in Africa become more nuanced, complicated and multi-dimensional.

Jennifer Tappan (this volume) examines the long-term impacts of early twentieth century research that identified different cycles of yellow fever disease transmission in Africa and in the Americas. While in the Americas, yellow fever was never fully characterized as endemic, in Africa efforts to map and understand yellow fever endemicity unfolded within a colonial framework that viewed and reinforced perceptions of Africa and Africans as "diseased." As a result, "the populations who might have been seen as at greatest risk of contracting yellow fever, those who lived in forest-edge environments in Africa, were instead viewed as part of an endemic cycle of transmission that threatened the health of others" (Tappan this volume). Although 90% of the world's current yellow fever cases occur in Africa, Tappan persuasively demonstrates that this unequal disease burden is at least in part the result of differential decisions around prevention strategies and widespread use of vaccines made on the basis of this problematic distinction. In this case, the afterlives of both the early twentieth century research and the mid-twentieth century interventions they influenced continue to impact efforts to control yellow fever outbreaks today. The history of yellow fever research in Africa is not unique, and is potentially instructive for reconsideration of the accepted wisdom of how best to address a range of health threats that have historically been mapped onto places and peoples in ways that privilege differential policy pathways.

Melissa Graboyes and Judith Meta (this volume) focus on the long history of malaria elimination attempts and failures in Zanzibar, and specifically on a case of rebound malaria that occurred in the early 1970s. From 1957-1968, an intensive WHO program relying on insecticide spraying and environmental control came vexingly close to eliminating malaria. However, its abrupt end in 1968 resulted in severe consequences for Zanzibaris, most of which are known primarily due to the vernacular knowledge preserved within the local community. The severe rebound epidemic was not surprising or unexpected: WHO scientists had discussed the possibility in private communications. Yet, few if any plans were made for the end, information about the risk was never shared with Zanzibaris, and adequate measures were not taken to protect people as malaria returned. Many of the same dilemmas facing the Zanzibar campaign in the 1960s remain challenges today for malaria control in equatorial Africa (insufficient tools, high rates of endemicity, unequal sharing of information between scientists and participants). There also remain unanswered ethical questions about the risks of resurgent malaria and the involvement of local communities. Graboyes and Meta put forth a series of recommendations for future projects (including those that follow on the Lancet Commission's recent calls for "Malaria Eradication Within a Generation"), arguing that afterlives need to be actively integrated into both informed consent protocols and included in project budgets.

Jean Faye and Yvonne Braun (this volume) explore the ways in which soil health and human health are intertwined by focusing on peanut-farming in Senegal. There, as elsewhere, prolonged mono-cropping strips nutrients from soils and exacerbates the plants' vulnerability to insects and diseases. These changes, in turn, degrade soil and put harvests at risk, which have implications for the livelihoods, health, and food security of small-scale farmers and their communities. Faye and Braun look carefully at the impact of aflatoxins--dangerous chemicals produced by crop molds that can find their way into the food supply and harm human health. Through that lens, they demonstrate the unintended consequences of colonial and postcolonial incentivization of monocropping that put local communities at greater risk. Potential solutions come from vernacular knowledge and the sustainable indigenous agroecological practices of

Serer farmers, which enrich soil health and break disease cycles. Faye and Braun argue that the use of "management approaches which derive from and enrich traditional cultural systems" will lead to solutions that will effectively manage production and yields without ignoring social and ecological health.

Danson Mwangi (this volume) critically examines the implementation of a One Health approach to the control of zoonotic diseases in the Nthongoni region of Kenya relying on close ethnography and attention to multiple forms of vernacular knowledge. Mwangi's primary focus is the repercussions when an internationally funded project fails to fully integrate indigenous knowledge, by excluding traditional healers and healing strategies directed at animals. In Nthongani, local residents understand human and animal health as inextricably intertwined and local healers were already engaged in what Mwangi terms "lay one health" as their healing practices integrated the two. Mwangi argues that both widespread local knowledge about animal-human health, and the specialized skills of traditional healers could have served as a strong foundation for a One Health intervention. This case study presents a contemporary intervention, but Mwangi identifies many of the same issues noted by Graboyes and Meta in their historical case study, including a top-down approach by international donors and an abrupt suspension of funding with no planning or concern for project afterlives.

Finally, in her postscript, Tamara Giles-Vernick (this volume) reflects on the implications of these case studies for global health specialists and practitioners, particularly in light of the current COVID-19 pandemic.

Conclusion: Histories of Global Health in the Future

Collectively, the articles in this special section speak to the crucial value of approaching global health in Africa through historically grounded and local vernacular frameworks. The case studies demonstrate that the interactions facilitating disease transmission are often not new, and that historical processes undergird contemporary epidemics, the associated responses, and their efficacy on the ground. They illustrate the importance of historical and anthropological analysis in understanding the complexity of contemporary conditions on the continent. Decades of encounters (past promises, cases of potential coercion, and former successes and failures) shape individuals' and communities' perception of, and responses to, contemporary global health interventions. Thus project afterlives are deeply entangled with local vernacular knowledge of health and disease, in diverse ways across the continent. Yet, as others have pointed out, "cycles of public health amnesia" continue to permeate the field (Kelly and Beisel 2011). When global health students and practitioners arrive in Africa without knowledge of the relevant history and local ways of understanding health challenges it is not simply disrespectful, but risks compromising the efficacy of current and future efforts.

What is needed is not necessarily new research, as scholars have been examining the history and ethnography of health and healing in Africa for several decades. Yet historians and anthropologists are in dialogue almost exclusively with other scholars within their respective fields. This intellectual and professional siloing has left the lessons to be gleaned from the cultural and historical dynamics of health in specific regions largely invisible to global health practitioners seeking to develop and implement initiatives aimed at improving health outcomes. As a result, global health programming is often ill-equipped to build on the foundations of past interventions or avoid the pitfalls of earlier efforts.

We are thus left with a practical question: how can historical knowledge and the significance of local histories of health interventions be more accessible to global health

practitioners? Historians and anthropologists typically publish book length monographs or long articles in disciplinary journals; global health practitioners typically look for articles within databases such as PubMed. Even when the intent is for these books to be accessible to non-specialists (such as Giles-Vernick and Webb's 2013 edited volume *Global Health in Africa: Historical Perspectives on Disease Control*), it is not clear that goal is being met. One remedy is for historians and anthropologists to publish work in different formats and venues. A notable, but still rare practice is to publish in more biomedical and global health-oriented outlets. Good examples of this approach include: Webb's pieces in the *Lancet* highlighting the importance of the "historical epidemiology" of diseases (2015) and another discussion the history of malaria elimination failures in Africa (2009); Tilley's call to be attentive to the "ethical problems that have grown out of past asymmetries of power" in the *AMA Journal of Ethics* (2016); Crane's piece in the *Lancet* (2011) raising questions about the authenticity of American universities' partnerships with institutions in the Global South; and Wendland's observation about how perinatal outcomes measures needed to be reimagined in order to "ensure ethical and safe maternity care" in *AMA Journal of Ethics* (2018). While these articles are condensed versions of much longer pieces of research, they provide solid introductions to the topic, that will hopefully increase awareness of the presence and utility of historical works. We hope to achieve some of those same goals with this special section--publishing in a venue with a broader readership beyond our fellow anthropologists and historians.

Yet while publishing norms are key, how we train global health professionals determines how the field will be practiced in the future. Unfortunately, most graduate public health and global health programs in the US do not currently require coursework involving history, and few of the offered courses center on historical analysis. It is unfair to expect new global health professionals to discover the importance of history to their work on their own and in the absence of expert training and guidance. At The Johns Hopkins University Bloomberg School of Public Health, for instance, not a single history course or course that is clearly historical is required as part of the core public health curriculum. Out of more than 2400 listed public health courses, only 2 have "history" in their title (History of International Health and Development; and History of Public Health). Not only are opportunities to learn the value of historical analysis minimal, but the messaging to students is that history is peripherally, if at all, related. In the MPH program's 96-page Program Manual, the only reference to history or historical readings comes in Appendix B, the final page of the document. There, there is a list of 17 "Books on the Reading of List of the MPH Executive Board" with a note clarifying they are just "suggestions for *optional* reading for your *leisure* and reading *enjoyment*" [our emphasis]. On that list, there are a total of 8 texts that address a historical topic, only 3 of which are written by trained historians. The clear message is that this reading is entirely optional, and valuable as a form of pleasure rather than critical to intellectual development, professional training, or the success of future work.

In conclusion, despite significant advances over the past several decades, the potential of historical analysis and full engagement with vernacular knowledge to contribute to the design of more efficacious and successful global health interventions remains largely untapped. While historians and anthropologists must continue to seek out opportunities to engage directly with practitioners, structural changes in public health education, project funding models, and ethical expectations about project afterlives are crucial if global health interventions are to meet their objectives and avoid harm.

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