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Lifestyle as cause and market: NCDs and Ayurveda care in Africa

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In this paper I explore how the Indian Ocean is (re-)emerging as a region in the medical practice I have been tracing—new flows of Ayurvedic medicines from India to East Africa—not only as a trade route on the transoceanic axis between India and Africa, but also as a "shared world in turmoil" in which the Indian diaspora, the Indian pharmaceutical industry, and Ayurvedic practitioners are creating new "lifestyle disease markets". India-based pharmaceutical entrepreneurs from *The Himalaya Drug Company* and *Charak Pharmaka* are the most prominent distributors of Ayurvedic pharmaceuticals, extending their reach into Kenya through travel and Indo–African partnerships. Ayurvedic practitioners, many of whom belong to the Indian diaspora community in Kenya, as well as Kenyan therapists from the broader community, also play an important role. Their aspirations and efforts include the promotion of Ayurveda care in a variety of settings, from upscale Ayurvedic clinics to pharmacies and even slums. The "ancient Ayurveda tradition" promises to be a viable way to address the alarming rise of chronic non-communicable diseases (NCDs) on the continent such as diabetes, cancer, cardiovascular and mental disease, which are often referred to as "lifestyle diseases". This choice of terminology suggests both agency and privilege and implies that their prevention, control, and management are amenable to behavioral changes in consumption patterns, diet, physical activity, and the use of Ayurvedic medicines. Using NCDs in Kenya as a case study, I shed light on the transformation of the Ayurvedic industry and new transnational pharmaceutical circuits through two lines of investigation. Firstly, by interrogating how formerly localized Ayurvedic producers and practitioners have become transnational entrepreneurs[1] who strategically reinvent and tailor Ayurveda care as an "alternative modernity" for "modern" NCDs. Secondly, by critically exploring for which patients the attainment of a "wholesome lifestyle" and health consciousness is possible in the context of patchy chronic care infrastructure. I will provide an analysis that situates people's healing perceptions and therapists' practices within a field of possibilities shaped by health policies, the burgeoning burden of chronic disease, new market dynamics, and life conditions.

KEYWORDS

NCDs, Ayurveda, Kenya, lifestyle disease, pharmaceuticalization

1 Introduction

> We came as traders. Dealing with medicine.
> —Vivaan, pharmacist, Nairobi.

1 I refer with this term to individuals who promote and commercialize Ayurvedic medicines or services through ventures like pharmacies, wellness centers, clinics, or product lines, without being formally trained or certified as Ayurvedic practitioners.

"Marketing is everything. The Indian provenance sells well. To bring Ayurveda to the African market, you need to get your facts straight and be able to explain the product. You must know the effects of each plant. Nowadays, people check drugs online and want to see if they are scientifically tested," says Vivaan, a young pharmacist at Ganji's Pharmacy. Nestled in Nairobi's historic Ngara district, Ganji's is a family-run business that began trading in the 1920s with textiles and medicinal herbs when Vivaan's grandfather first arrived from Gujarat. At the time the district was a vibrant commercial hub, bustling with small shops trading in silk, saris, and foodstuffs such as cinnamon, turmeric, nutmeg, and other spices, many of which were also valued for their medicinal uses. Today, the area bears the marks of the pressures of rapid urbanization, and at first glance, little of its former glory remains. Yet the vibrant bustle of street vendors still exudes a dynamic energy, including Vivaan, who now stands at the forefront of a new venture: Ayurvedic medicine. In the glass showcases of his pharmacy, more than 20 different Ayurvedic products are displayed, mostly form India's *Himalaya Drug Company*, and sold over the counter in modern dosage forms such as tablets or blister-packaged capsules. Vivaan's pharmacy is tapping into a growing market for so-called complementary and alternative medicines (CAM), including Ayurveda, to meet the demands of an increasing number of global consumers. The Ayurveda industry has witnessed remarkable growth, with an estimated turnover at $10.59 billion US dollars in 2024, and is projected to expand at an annual rate of 15% over the next decade [Market Research Future (MRFR), 2024].

Aspiring to harness the promise of profit within the context of commercial but, importantly, also social and cultural trans-oceanic exchanges, Vivaan represents a new generation that is reimagining Ayurveda care (in the form of medical formulations, various therapeutic practices, and pharmaceuticals) for a world increasingly seeking what he describes as "natural" forms of healing. Ayurveda, the centuries-old branch of traditional Indian medicine, has been commoditized around the globe and has become particularly relevant in the management of chronic, so called non-communicable diseases (NCDs). NCDs such as diabetes, cancer, cardiovascular and mental disease are commonly referred to as "lifestyle diseases", from which the African continent is severely affected. Ayurveda is gaining recognition for its potential to address these conditions by advocating for "lifestyle interventions", including dietary changes, exercise, or for managing the stress of modern urban life.

In this article I explore the origins of the aspirations driving the introduction of Ayurveda to East Africa, as articulated by Vivaan and other Ayurvedic entrepreneurs and therapists I encountered. Specifically, I investigate the political, cultural, and economic contexts that foster certain aspirations, which play a crucial role in shaping Asian medical industries. I examine the factors that enable these actors to pursue their aspirations, the forces sustaining their efforts, the constraints they encounter, and the broader medical implications of these developments. Aligned with the central theme of this Special Issue, which emphasizes the innovative, integrative, and transformative dimensions of Asian medical industries, my analysis focuses on a critical yet underexplored facet of this transformation: the transnational expansion of Ayurveda *beyond* Asia, particularly into East Africa. While much is known about the historically significant economic and cultural connections between India and East Africa (Campbell, 2008), there is still limited understanding of the health implications of these linkages, especially as healthcare plays a "strategic role" in shaping Indo-African discourses and creating new market opportunities for India (Bhattacharya, 2009; Duclos, 2014).

I reflect on how the Indian Ocean is re-emerging as a significant region for the expanding trade of Ayurvedic therapies beyond the Indian subcontinent. India and the East African coast have long been connected through commerce, migration, and knowledge transfer (Alpers, 2009). These exchanges evolved through three key phases: ancient long-distance trade (Middleton, 1992), labor migration and business expansion under British colonial rule (Caplan and Topan, 2004), and postcolonial economic cooperation, particularly in competition with China (McCann, 2011). Therapeutic practices and medicine have historically been part of this exchange (Iliffe, 1998). However, the region's prominence in global trade waned with the rise of European colonial economies and later Cold War geopolitics, shifting trade routes and economic priorities elsewhere. Since India's economic liberalization in the 1990s, Indo-African relations have been revitalized, particularly in healthcare (Bhattacharya, 2010; Cheru and Obi, 2010; Mawdsley and McCann, 2011). India's pharmaceutical industry has positioned itself as a key supplier of medicines and medical devices to Africa, leveraging historical ties and South–South cooperation narratives. Today India is expanding market opportunities while presenting itself as a "genuine" provider of medical solutions for African populations (Duclos, 2012, 2014). In addition to India's strong presence in the biomedical sector, there is a significant market for Indian-manufactured Ayurveda medicines. The expansion of Ayurveda in healthcare involves the Indian pharmaceutical industry, the Indian diaspora, and Ayurvedic specialists, who are actively shaping new "lifestyle disease markets" to address non-communicable diseases while navigating regulatory and transnational migration challenges. Using Kenya's NCD epidemic as a case study, I show how formerly localized Ayurvedic producers and practitioners have transformed into transnational entrepreneurs, strategically reinventing and adapting Ayurvedic care as an "alternative modernity" for the treatment of "modern" chronic diseases in the Nairobi metropolis.

In the following sections, after outlining my broader ethnographic approach, I will explore three central themes that illustrate the origins, legitimizations, and implications of the aspirational dimensions of my interlocutors: (1) the imagination of the Indian Ocean as a transnational trade hub and its significance in shaping contemporary Indo–East African linkages; (2) the transformation of Ayurveda from a localized tradition to a global practice, driven by industrialization and its integration into the global pharmaceutical industry, which now extends its reach into African markets; and (3) the rise of NCDs as a key factor driving both marketing efforts and the growing demand for Ayurveda medicines in Kenya. I will also critically assess for which patients the realization of a "wholesome lifestyle" and heightened health consciousness is attainable, given the patchy nature of chronic care infrastructure in the country. My analysis situates patient perceptions of healing and therapist practices within a landscape shaped by health policies, the increasing burden of chronic disease, evolving market dynamics, and prevailing life conditions.

2 Materials and methods

2.1 The ethnographic ocean

The "ethnographic ocean" as a methodological lens, introduced by anthropologists Simpson and Kresse (2007), shifts the focus from territorially bound societies to social life shaped by cultural exchange and transregional networks linking Africa, the Middle East, and South Asia. It informs two key aspects of my study. Firstly, the historical and contemporary conceptualization of the Indian Ocean region, its heritage, the impact of globalization on its cohesion and fragmentation, and the role of imagined identities through kinship ties and biopolitical governance. Secondly, concept of the "ethnographic ocean" promotes an understanding of the region as a dynamic space of interaction, calling for an approach that captures interconnected dynamics while moving beyond land-based perspectives to one attuned to mobility, exchange, and the complexities of unequal power relations.

From a conceptual standpoint, medical anthropology (cf. Hsu, 2001, 2012; Luedke and West, 2006; Parkin, 2014) and historical scholarship (Harrison, 2016; Winterbottom and Tesfaye, 2016) has for long examined the global trade and circulation of valuable *materia medica*, medical knowledge, and therapeutic practices across the Indian Ocean region. These scholars emphasize the historiographical significance of this region by analyzing transoceanic exchanges that have shaped the epidemiological and medical histories of the "Indian Ocean World" (Prestholdt, 2015). Scholarship focusing on the interconnections between diverse localities has also questioned the extent to which these interactions constitute a cohesive "region" or even a unified "world" (Alpers, 2009). Moving away from assumptions of normative homogeneity, recent Indian Ocean studies advocate for a process-oriented, historical approach. Simpson and Kresse (2007) propose understanding the region as "connectivity in motion", offering a framework for empirically examining transnational mobility while capturing both historical continuities and disruptions (see also Reinwald, 2002). They have identified several unifying elements that underpin related—but distinct—social worlds, including trade, transoceanic human interactions, the movement of migrant and diaspora communities, and the economic significance of South Asia (Chaudhuri, 1995; Kresse, 2009a,b; Pearson, 1985; Simpson and Kresse, 2007). A focus on regional coherence and unimpeded mobility, they argue, tends to overlook barriers imposed by the ocean and coastal states' regulations. Moreover, this perspective fails to identify critical junctures in space and time where mobility is reinitiated or where exchanges start to flow (again), or even hop, as highlighted by Schnepel and Alpers (2018). Hence, it is the shifting frictions, rather than seamless flows, that define the contours of the Indian Ocean World. The metaphor of the ocean—evoked through terms like "currency" and "fluidity"—remains valuable for capturing the region's dynamic and interconnected nature. However, a historically grounded ethnographic approach seeks to provide a more nuanced understanding of the ocean, revealing how practices may move—whether fluidly, with resistance, or not at all. These moments carry infinite possibilities, implicating undercurrents, counter currents, or unexpected "emergences to the surface" (Laplante, 2018, p. 237).

Conceptualizing the ocean in this way has been both inspirational and instrumental to my study, as it highlights the interconnectedness and integrative relationships within the Indian Ocean region. As healing practices become increasingly globalized, historical connections across the Indian Ocean endure, albeit often transformed by new contexts (Winterbottom and Tesfaye, 2016, p. 10). This perspective fosters a deeper exploration of human experiences shaped by emotional exchanges, offering insights into the reconfigurations of social relationships and health-related practices today. It also enables a close examination of the places and individuals who drive the circulation of new therapies—while recognizing how their sociocultural, politico-economic, and mental characteristics have, in turn, been shaped by these exchanges. Ultimately, this approach sheds light on how and why individuals like Vivaan are embedded in and actively influence these global structures.

To approach the region methodologically, researchers, as Simpson and Kresse (2007) suggest, must become Indian Ocean travelers themselves, engaging with questions of authenticity, scale, and power. How research is conducted often "implicitly determines what and how they can see, and thus what they ultimately can (and cannot) observe" (p. 2). Ethnographically exploring the transnational "Ayurveda move" required me to view the Indian Ocean region not only as a key trade route along the transoceanic axis between India and East Africa but also as a "shared world in turmoil" (Laplante, 2018, p. 220), shaped by the dialectic of flow and boundary-making. This turmoil, rooted in colonial histories, shifting geopolitics, and economic dependencies, continues to influence present-day interactions, revealing how global structures, historical continuities, and inequalities intersect, especially in healthcare, trade, and knowledge production. Laplante's framing highlights both the integrative potential and the frictions that shape social, medical, and economic exchanges in the region.

Building on an ethnographic approach to the study of frictions inherent in the emergence of health interventions in a transnationally interconnected world (Duclos, 2012; Tsing, 2005), between 2015 and 2017, and in 2022, I studied the remarkable efforts required to facilitate the movement of Ayurvedic drugs and healing concepts across diverse locations and contexts. Key cities in my research included Mumbai and Bangalore as Ayurvedic commerce centers, and Nairobi as a hub for its East African market, exploring both their external influence—such as Indo-African pharma partnerships shaping Ayurveda trade—and internal dynamics, including Nairobi's strategic location. Rather than merely mapping new flows of medical practices, I aimed for a thicker description of the geographical, legal, and ideological hurdles practices encounter before reaching a new location. This approach uncovers hidden issues and power dynamics within "global medicoscapes"—the transnational flows of medical ideas, practices, knowledge, technologies, professionals, and patients, shaped by mobility and cultural, political, and economic forces (Hörbst and Wolf, 2014; see Kaspar, 2019 for medicoscapes in the context of Ayurveda). These forces influence not only which *materia medica* circulate but also which alternatives to medical modernity gain traction (see on this perspective Bochaton et al., 2019; Høg and Hsu, 2002). It contextualizes Indo-African connections in health interventions, exploring the diverse

relationships these interactions gave rise to, while also examining the conditions *for* and consequences *of* new forms of circulation involving people and new healing ideas.

My data were gathered from drug policy documents, WHO guidelines, newspapers, and Ayurveda-focused blogs. In-depth qualitative, biographical, and expert interviews, as well as informal conversations were conducted with the only nine Indian Ayurveda experts in Nairobi at the time of my research, six African practitioners learning Ayurveda, ten Indian pharmaceutical representatives (with a particular focus on *The Himalaya Drug Company*, hereafter *Himalaya*, and *Charak Pharmaka*, hereafter *Charak*, the most prominent companies in Kenya with whom I also conducted follow-up interviews), and six pharmaceutical regulatory officials in India and Kenya. Moreover, I interviewed seven representatives from the Kenyan Medical Research Institute (KEMRI) and its associated research programs, including experts from the departments of pharmacology and the African Centre for Technology Studies. These discussions focused on herbal medicines, drug development, and policy formulation for traditional and alternative medicines. Additionally, the interviews examined both existing and anticipated health market connections, enabling me to conceptualize mobility not only as physical movement but also as *imagined* mobility—encompassing aspirations, hopes, and dreams linked to the practice of "medicine as business." Participant observation in registered pharmaceutical companies specializing in Ayurvedic pharmaceuticals, as well as in pharmacies and Ayurveda therapy settings (clinics, resorts) provided insights into the lived experiences, relationships, and hierarchies among various actors. I explored the aspirations, tensions, and conflicts inherent in these encounters, incorporating patient perspectives through 15 biographical and qualitative interviews with individuals suffering from various NCDs who rely on Ayurveda. Interviews were conducted in Kiswahili and English.[2]

3 Results

3.1 "Our task is to create authenticity": the imagination of the Indian Ocean as a transnational trade space

Contemporary medical globalization has reshaped exchanges across the Indian Ocean, with India's growing ties to East Africa driven by strategic objectives, including global health governance reforms and economic growth efforts (Large, 2011). Indian healthcare knowledge is shared through medical consultancy services with African counterparts (Duclos, 2012, 2014), private hospitals, or clinics run by Indian practitioners abroad. Since the late 1990s, affluent African patients have increasingly sought treatment in India (Kaspar, 2019). Additionally, India is emerging as a global healthcare leader though its transnational pharmaceutical corporations and supply of generic drugs (Chorev, 2020; Quet, 2022). Indian pharmaceutical companies not only supply generic drugs to Africa but also introduce Ayurvedic medicines into the market, with East Africa as a key focus. Knowledge of Ayurveda is transmitted by Indian Ayurveda healthcare agencies with overseas branches that send Indian Ayurveda doctors, masseurs, and other technical experts (so called "Ayurveda consultants") to East Africa. It is also disseminated via global platforms, such as online health forums, Ayurvedic Practitioner e-learning programs and Ayurvedic telemedicine.

A fascinating aspect that emerged during my research was how individuals and social groups in the region are re-imagining historical relationships around the Indian Ocean. Central to this process are the aspirations to revitalize, cultivate, and assert a sense of "ownership" over this space—aspirations deeply rooted in its complex history of trade, which continue to exert a significant influence today. This re-imagination is not merely a nostalgic reflection on historical connections but an active effort to redefine the Indian Ocean as an economic and cultural entity, often with India at its center. Many actors articulate this vision by drawing on long-standing historical trade networks, kinship connections, and shared medical healthcare practices and traditions. These connections can be mobilized to reclaim the Indian Ocen as a medical-cultural space. For example, the vice president of sales and marketing at *Himalaya*, Rajun Patel,[3] envisions the region as the *Indian* Ocean, a unified space, yet one where India assumes a significant—and at times dominant (see Prestholdt, 2015)—economic role. He noted, "Economically, we are leading in East Africa, and there is trust in our medicine. The Indian provenance plays a role, our drugs are well accepted drugs." His statement reflects how commercial and cultural legitimacy in the region is tied to India's perceived leadership in terms of economic engagement. Ayurveda, as both a commercial industry and a system of care, exemplifies how health-related interventions are being articulated within this re-imagined regional framework: "Ayurveda is well known in the world. It's ancient. It sells itself by its name. History has built up evidence." Rajun views India as a major economic powerhouse and emphasizes its expanding role as a global healthcare provider, including the expansion of its CAM market. "Ayurveda represents a rapidly expanding market." However, as Rajun noted, "You can't rule the global market if you don't understand the global". His statement highlights an important tension: the effort to position Ayurveda within the global health economy while simultaneously maintaining its localized histories and region-specific applicability. *Himalaya*'s initiative, like many others, seeks to transcend the limitations of national public health governance, envisioning a globalized health space where Ayurveda serves as a key site of intervention (Meier zu Biesen, 2017, p. 6).

2 I confirm that my research adhered to the ethical principles of anthropology and the professional code of ethics of associations to which I belong, including the German Association for Social and Cultural Anthropology (DGSKA). The research also complied with the ethical requirements of Kenya, and received approval from the National Commission for Science, Technology, and Innovation (NACOSTI) under clearance reference number NACOSTI/P/16/28233/12938. Participants were fully informed about the research, including its topic, duration, purpose, implications, possible outcomes, benefits, methods, and participant selection. They were invited to provide remarks and suggestions. All participants had the legal capacity to give written consent and were free to withdraw at any stage. The research was limited to qualitative interviews, oral conversations, and observations, with no experiments causing physical or mental harm.

3 All names are pseudonyms.

Global healthcare industries and state-led initiatives are actively shaping the Indian Ocean as a medical geography. Here, Ayurveda is not only promoted for Indian populations but also strategically positioned for diasporic and transnational communities. As Rajun observes, this process of "re-Indianization" can be understood as an attempt to reclaim the Indian Ocean as a space of Indian-led health expertise reinforcing historical trade ties through healthcare. While Ayurveda's global ambitions are evident, the Indian Ocean region remains a distinct locus of its deployment. Pharmaceutical industries, but also healthcare providers, and policymakers engage with the region's populations through a biopolitical lens, organizing them according to perceived health risks or disease burdens. In this context, Ayurveda is positioned as particularly suited for Indian Ocean populations, not just because of its historical presence but also due to contemporary narratives that construct a shared medical heritage. This imagined continuity lends Ayurveda both credibility and marketability, allowing companies and individual practitioners to promote it as a natural fit for regional health needs. As Ayurveda is further integrated into Indian Ocean health economies, its role as both a commercial product and a form of care will continue to shape the way with which the region is imagined and engaged, both by those who inhabit it and those who seek to govern it.

As N. Luthra, East African marketing manager for *Himalaya*, stated, a "shared cultural heritage" within the Indian Ocean realm is driving the India–East Africa connection. His company identifies a significant market potential in labeling Ayurveda as a "new" traditional medicine—mass-produced using distinctly modern techniques—and leveraging the long-established ties between India and Kenya. Luthra explained: "Our company envisions an effective inclusion of Indian herbal medicine, which has a huge potential for an inclusive public health strategy through a South-to-South partnership." India's international agenda prioritizes enhanced South–South cooperation, with large pharmaceutical companies—*Himalaya* and *Charak*—playing a leading role in the global expansion of Ayurvedic pharmaceuticals. Their market reach is facilitated through Indo–African partnerships, supported by merchant exporter networks and distributor arrangements. Key institutional actors, including the Pharmaceutical Export Promotion Council (Pharmexcil), the AYUSH pharma segment, and the Indian Association of Manufacturers of Ayurvedic Medicines (AMAM), are integrating Ayurveda into global health markets. Pharmexcil, a body set up by the Ministry of Commerce and Industry with the objective of export promotion of pharmaceuticals including herbal drug preparations, is the designated agency that issues registration and membership certificates (RCMC) for pharmaceutical exports under foreign trade policy in India. The AYUSH advisory group of Pharmexcil defines the export market, identifies (foreign) distributors interested in Ayurvedic pharmaceuticals, and organizes "buyer–seller" meets to facilitate interaction between the Ayurvedic industry and drug distributers. AMAM leads companies on issues relating to quality control for global acceptability. In Africa, the major importing countries for Ayurvedic drugs are Kenya, Tanzania, Uganda, Ghana, Nigeria, and South Africa. East Africa represents a significant market with considerable potential for expansion.

Beyond the Indian pharmaceutical industry, Ayurvedic practitioners—many of whom are born in Kenya of Indian descent—together with Kenyan therapists, play a significant role in expanding Ayurveda markets. They actively promote Ayurveda through medical formulations, therapeutic practices, and Ayurvedic pharmaceuticals across diverse settings, including upscale private clinics, local pharmacies, and even slum areas. During my research, I interviewed all (nine) practicing Ayurvedic doctors and entrepreneurs in Nairobi to understand how and why they introduced and continue to promote this branch of traditional Indian medicine. Their responses reflected a shared vision: the ideological mission to "maintain a healthier and more productive Africa" was as prominent as the pragmatic objective to "carry out medicine as a business." Most of them share a common perspective that views the Indian Ocean as an interconnected space, sustained through social, kinship, and business networks, as well as the influential presence of strong diasporic communities.

Anjali Sura, for example, a member of the Indian diaspora in Nairobi, embodies this perspective. Her mission is to promote Ayurveda in Nairobi through the expertise of skilled Indian healthcare professionals, offering treatments tailored to the needs of her clientele, which comes from Indian, African, and international communities. In 2009, she founded her clinic in the Spring Valley area on the outskirts of Nairobi. Anjali portrays her clinic as a healing sanctuary dedicated to fostering salutogenesis. In her words:

> The serenity and warmth of our clinic work like magic. The healing results we achieve with our patients have become selling point, and Ayurveda is here to stay in Africa. There was no authentic touch between Ayurveda and Africa, and our task is to create that authenticity. I am bringing Ayurveda into the lives of people who had been desperately looking for cure and hope. Ayurveda is the future of the health industry, a role player.

Anjali does not practice Ayurveda herself but has partnered with a qualified Ayurvedic practitioner from India to help establish the clinic's "authenticity". Before launching her venture, she conducted a fact-finding mission in India, where she sought out an Ayurvedic doctor capable of heading up the practice in Nairobi. This search led her to Dr. Mahesh, a postgraduate Ayurveda specialist from India, who has since relocated to Kenya and now trains local therapists in Ayurveda. Both Anjali and Dr. Mahesh view Kenya as "fertile ground" for Ayurvedic therapies, citing the country's ancient cultural traditions, widespread use of traditional medicine, cosmopolitan character, and English-speaking workforce. They also highlight Kenya's status as the largest economy in the African Great Lakes region, its growing expatriate community in Nairobi, and a well-established Indian diaspora of over 200,000 people. The Indian diaspora has long played a crucial role in shaping India's engagement with East Africa (Large, 2011, p. 28), serving as a cultural and economic bridge between the regions.

A defining aspect of Ayurveda's globalization is the migration of therapeutic practices to serve diasporic communities (Winterbottom and Tesfaye, 2016, p. 9). Indian practitioners with expertise in Ayurveda have been instrumental in expanding its reach by establishing clinics, pharmacies, and holistic health resorts in Kenya. Acting as intermediaries, they not only introduce Ayurvedic treatments to local populations but also educate them about its benefits.

Dr. Prashad, an Ayurvedic practitioner of Indian descent who pioneered Ayurveda in Kenya, affirms that this traditional Indian

system of medicine has carved out a modest yet expanding presence in the country's healthcare landscape: "Ayurveda is perceived as novel, safe, and economical." He further noted that "growing disillusionment with allopathic medicine has led many patients to turn to Ayurveda for their health concerns". According to him, this rising demand is driven by increased awareness of Ayurveda's benefits, greater accessibility, and higher disposable incomes: "The local reception of Ayurvedic medicines has been strong. Nowadays, these drugs are popular with the locals," Dr. Prashad explained. "People want to get cured; people are tired. They try the medicine, experience improvements in their health, and spread the word. The market for Ayurvedic drugs is huge". This is especially true, he added, for chronic diseases: "Conventional medicine only alleviates symptoms, but with chronic conditions, Ayurveda is powerful."

Aside from therapy settings, Ayurvedic drugs are sold as over-the-counter brands in pharmacies, shopping malls, or in Indian-run *dukas* (small shops), which have sprung up in the crowded market areas of Nairobi. Consider Suraj, the owner of "Suraj Herbal Shop" located in Nairobi's business district of Ngara, who migrated from India to Kenya 50 years ago to start a business specializing in Indian-sourced herbal medicines. The shop has the ambiance of a large grocery market, with sacks of grain, bundles of dried herbs, and shelves lined with boxes of Ayurvedic pharmaceuticals. Over the past years, Suraj has observed a growing preference for Indian Ayurvedic medicines among his Kenyan customers and speaks enthusiastically about the business opportunities this market provides for the region: "In this world, there is no boundary for business. The Indian Ocean is one world."

Suraj, Anjali, Dr. Mahesh, Dr. Prashad, and other Ayurvedic practitioners and entrepreneurs in India and Kenya, together with representatives from the Ayurvedic pharmaceutical industry and the Indian government, are responding enthusiastically to the opportunities created by the growing global demand for Ayurveda among local, migrant, and diasporic communities. However, this expansion raises critical questions: What drives these actors to aspire to such expansion, and what obstacles or limitations do they encounter in realizing their ambitions? As I will show next, an important aspect of Ayurveda's transnational expansion is the success of companies like *Himalaya* in transforming the Ayurvedic herbal tradition into cutting-edge medical technology (Pordié and Gaudillière, 2014b, p. 9). Another significant driver of the industry's transformation and the emergence of new transnational pharmaceutical circuits is the creation of new lifestyle disease markets. This shift reflects the industry's capacity to address specific health needs, particularly the growing demand for treatments targeting one of the most pressing global health challenges: chronic diseases.

3.2 "Based in nature, backed by science": Ayurveda innovation and governance

Both textual and empirical research demonstrate that Ayurveda has evolved into one of the most dynamic branches of Asian medicine over the centuries (Kloos and Blaikie, 2022). Its growth has been shaped by various historical and socio-political factors, including trade, migration, colonialism, and religious proselytism (Alter, 2005; Pordié, 2014a; Zimmermann, 1992). A key factor of Ayurveda's endurance and diversity is its adaptability across different eras and geographic, legal, and health contexts (Nichter, 1996; Wujastyk and Smith, 2008). Processes of appropriation, integration, and reformulation—both within India and internationally—have further driven these transformations, fostering innovative forms of Ayurvedic care and solidifying Ayurveda as a fully fledged industry with significant economic, political, social, cultural, and medical influence on both national and global scales (Banerjee, 2009; Bode, 2006, 2009; Kloos and Blaikie, 2022; Langford, 2002; Madhavan, 2009, 2014; Warrier, 2011). In the context of globalization, the industrialization of Ayurveda has not only led to operations at scale but also to a new approach, with innovation emerging as a central focus.

As a leader in contemporary Ayurvedic innovation, *Himalaya*, founded in the 1930s, exemplifies the evolution of local enterprises with deep historical roots. Over the past nine decades, the company has pioneered herbal research, developing pharmaceuticals derived from the Ayurvedic pharmacopeia (Patwardhan and Mashelkar, 2009). During my visits to *Himalaya*'s production facility on the outskirts of Bangalore's expanding metropolis, I noticed how the company's modern, techno-scientific aesthetic is central to its marketing strategy. This emphasis on scientific precision aligns with *Himalaya*'s longstanding mission to produce "quality Ayurvedic products." Such an approach was considered radical at the time—both before and after India's independence in 1947—when Ayurvedic practitioners were divided on whether to integrate biomedicine into Ayurveda or resist biomedical influences entirely. In his office, the senior marketing manager highlighted that rigorous scientific testing has been a hallmark of the company since its inception:

> Our company's goal has always been to transform Ayurveda using modern medical technology. We see Ayurveda both as a foundation for developing innovative products and as an ever-evolving medical system. A traditional science like Ayurveda will remain esoteric unless it is reinterpreted. We develop scientifically researched medications. Based in nature, backed by science.

At the core of this transformation is what Pordié and Gaudillière (2014a,b) describe as a "reformulation regime": the process of modifying classical medicinal plants combinations, originally outlined in centuries-old Ayurvedic texts, to fit contemporary production and medical standards. This reformulation involves simplifying and standardizing polyherbal combinations for large-scale, mechanized industrial processing while integrating biomedical experimentation in laboratories and clinical settings to provide empirical evidence of efficacy. It merges Ayurvedic and biomedical categories, creating new "traditional" polyherbal medicines designed to treat biomedical disorders. The "regime" notion underscores that the development of industrialized Ayurvedic remedies depends not only on technological advancements—such as converting compounded powders into ready-made pills—but also on a complex interplay of experimental, clinical, economic, and legal practices. These elements are essential for building markets and legitimizing Ayurvedic products within both "traditional" and "modern"

medical frameworks (Gaudillière, 2014, p. 393). The concept of "alternative modernity" (Banerjee, 2009; see also Adams, 2002) illustrates how traditional knowledge systems like Ayurveda are reimagined within contemporary socio-political, economic, and scientific contexts. This process reflects the complex politics of knowledge surrounding Ayurveda, marked by tensions between tradition and modernity, commodification, and cultural appropriation (Gaudillière, 2014, p. 402–403). Ayurvedic therapeutic practices are reconfigured to fit global health, commerce, and regulatory frameworks, undergoing transformations through standardization, clinical trials, and biomedical validation to align with dominant scientific paradigms. Banerjee (2009) describes this transformation as a "pharmaceutic episteme", wherein Ayurveda's epistemologies and practices become secondary to the production and commercialization of its medicinal products (Unschuld, 1992). This trend, characterized by the delinking of Ayurveda from its foundational epistemology, was first observed in India and actively supported by the Indian government over the past few decades. It is now evident in Kenya, demonstrating how the pharmaceutic episteme operates within global networks of capital, regulatory regimes, and emerging medical markets.

As mentioned earlier, this transformation also caters to the expectations of a new generation of healthcare providers and cosmopolitan clientele, both Indian and foreign, who seek "non-invasive", "natural", or "authentic" remedies (Pordié, 2014b). Professionally marketed Asian health products have gained increasing global traction, further reinforcing Ayurveda's position within transnational healthcare economies (Kloos, 2022). In recent decades, this shift has accelerated significantly, with markets for mass-produced Ayurvedic pharmaceuticals thriving across Europe, the United States, Asia, Latin America, and, more recently, Africa. As Kloos (ibid., p. 2) argues, this reformulation in the context of accelerated industrialization represents a shift from the clinical and medical spheres to the economic domain. In this new context, while individual practitioners remain influential, the primary actors have become Indian Ayurvedic drug manufacturers, some of which gave grown large enough to operate on a global scale. The concept of industry extends beyond the economic aspects of health products, corporations, and markets; it involves a wide range of sociocultural, political, technological, scientific, and medical phenomena that shape the contemporary production, use, and transformation of Asian medicines. As a result, Asian medical industries not only generate health commodities and economic profits but also produce political, social, cultural, and moral values.

The diversity of Ayurvedic brands is reflected in their broad range of products, spanning from traditional remedies to modern, mass-produced pharmaceuticals, each targeting different markets and consumer preferences. Some brands maintain emphasis on authentic Ayurvedic products, with classical medicines valued by both laypeople and Ayurvedic practitioners. Companies like *Himalaya* strategically tailor their marketing to appeal to both biomedical professionals and modern Ayurvedic practitioners. *Himalaya*, with international offices in the U.S., the Middle East, and Singapore, has successfully introduced over 200 innovative (yet traditionally rooted) formulations to the market, exporting them to around 90 countries. As part of its reformulation regime, in addition to the *Vaidyas* (Ayurvedic doctors), a significant portion of *Himalaya*'s research and engineering staff are biomedical scientists. These employees bridge the gap between the Ayurvedic sector in India and the broader pharmaceutical landscape, which includes medical products, OTC items, and healthcare services around the globe, including in Africa.

Building on the dynamic processes shaping the global expansion of Ayurveda in the Indian Ocean "space on the move", interviews with representatives from *Himalaya* and *Charak* reveal the frictions involved in expanding the Ayurvedic drug trade. These discussions highlight the diverse challenges that arise when adapting traditional therapeutic practices, grounded in Asian medicine, to meet international standards for production, registration, and quality control (WHO, 2019). A significant hurdle is navigating the regulatory frameworks and consumer preferences of East African drug regulatory authorities (DRAs), who play an important role in shaping the mobility of Ayurvedic drugs across the region. For Ayurvedic pharmaceuticals—classified by the WHO as "modified and imported products with an herbal medicine base"—to be marketed, they must not only be registered in their country of origin but also meet the safety requirements of the recipient country and align with its specific needs (WHO, 2005). However, these needs are often open to interpretation. In Kenya, for example, drug regulators classify Ayurvedic products either as food supplements or herbal therapeutic products, with the latter category requiring more complex approvals. Beyond compliance with GMP (Good Manufacturing Practice) and GLP (Good Laboratory Practice), adherence to the WHO-based "Asian Common Technical Dossier" is mandatory for Ayurvedic pharmaceutical exports. This requirement stipulates the use of sterile raw materials sourced from certified Indian vendors. Additionally, African DRAs mandate inspections of pharmaceutical facilities in India as part of the drug registration process. Production authorization is then granted or denied based on the technical evaluations provided by the African drug expert committee. Most African countries now require a Certificate of Pharmaceutical Product for imports from India. This certificate enforces stricter standards than India's version of GMP, compelling exporters to meet higher quality requirements than those mandated for the Indian market (Mackintosh et al., 2016).

The expansion of the alternative medicines market presents both new opportunities and challenges, influenced by global economic stratification and the varying regulatory frameworks across nation-states (Meier zu Biesen, 2017, p. 6). Despite infrastructural barriers, companies like *Himalaya* recognize that licensing and inspections as essential for ensuring drug quality control. As the vice president of sales and marketing stated, "Licensing is indispensable. It provides patients with safety". Moreover, *Himalaya* views these procedures as a means to "wipe out the competition", since internationally recognized quality assurance—such as that provided by the International Organization for Standardization—facilitates product mobility, though it is more challenging for smaller companies to implement. These companies often lack the resources for extensive molecular research and innovation (Madhavan, 2014). While the WHO standardizes traditional medicine within the biomedical paradigm, *Himalaya* uses this "symbolic categorical acknowledgment" to promote

their products, which might otherwise be marginalized by the Kenyan state (McNamara, 2020). In contrast, some Ayurvedic entrepreneurs bypass WHO regulations (see Gradmann et al., 2022), forging their own networks to establish an African Ayurveda market. This strategy is driven more by the rising demand for CAM therapies among patients (Craig, 2012) than to fiscal constraints, with the WHO reporting that up to 80% of the majority world relies on "traditional medicines" for primary healthcare (Bode, 2013). This approach is not unique to Africa but reflects a broader politics of knowledge, in which Ayurveda represents a larger global trend in the commercialization and governance of traditional medical systems. WHO regulatory frameworks play a key role in shaping this process, systematically enforcing global standards that influence how medical knowledge is legitimized and institutionalized worldwide.

As already mentioned, Indo-African networks and partnerships in the medical sector together with bilateral trade facilitated by Indian companies play a key role in expanding the Ayurvedic pharmaceutical market. To facilitate market entry in East Africa, *Charak* and *Himalaya* collaborate with major local medical distributors, connecting with various health institutions across the region. For example, "Europa Healthcare Limited", which represents *Himalaya* in Kenya, employs over 60 medical representatives—many with Indian or diasporic backgrounds—who engage with healthcare providers, including doctors, hospitals, retail chemists, nursing homes, and both governmental and non-governmental agencies. Similarly, *Charak* partners with "Harley's Limited", a Nairobi-based distributor serving similar stakeholders, such as government bodies, private institutions, NGOs, and major hospitals and pharmacies. Both companies' networks include Ayurvedic and allopathic doctors, pharmacists, scientists, researchers, and consumers, with a strong focus on Indian-origin medical professionals and East African doctors trained in India who are familiar with Ayurveda. These professionals receive product monographs—scientific publications in biomedical language—and are regularly visited by sales representatives (for India, see Pordié, 2014a, p. 63). Promotional efforts include pharmaceutical advertisements (e.g., brochures, scientific articles, textbooks), personal selling through events like "Doctors Meet Doctors Programs," and initiatives such as distributing Ayurvedic product samples, gifts, and sponsoring social projects like book donations or hygiene kits for schoolgirls in rural Kenya.

In this context, reformulation also involves integrating Ayurvedic medicines into broader treatment strategies, targeting new medical conditions. These targets often align with biomedically defined disorders that dominate the Indian reformulation landscape. The ambition to capture these medical targets necessitates not only the continued use of classical formulations but also the creation of new, more specific and potent alternatives. Thus, reformulation is inherently linked to the *re-examination* of the classical Ayurvedic corpus. This process, often referred to as "mining", typically involves several key steps: identifying Ayurvedic equivalents for biomedical symptoms associated with targeted diseases, locating classical formulations that address these Ayurvedic categories, selecting the most significant or commonly used plants in these formulations, simplifying the formulations, and validating their properties through laboratory testing and, when necessary, clinical trials (Gaudilliere et al., 2022; Pordié, 2014a). This approach often arises as a response to the perceived limitations of biomedicine, such as adverse drug side effects or the lack of a "person-centered" approach to treatment. As I will demonstrate next, key actors, such as the marketing director of *Charak*, but also Ayurvedic practitioners, have anticipated substantial market growth for treatments targeting individuals with "underlying conditions", i.e., non-communicable diseases like diabetes, cardiovascular conditions, and mental health disorders. By reinventing Ayurvedic care as an "alternative modernity" for addressing these "modern" NCDs, he frames this strategy and aspiration as both legitimate and meaningful. This perspective is grounded in the reality that NCDs are among the leading causes of preventable morbidity, mortality, and rising healthcare costs worldwide, including in Africa.

3.3 Lifestyle as cause and market: targeting the NCD epidemic with Ayurveda care

In Kenya, as in much of the world, NCDs such as uncontrolled diabetes, cancer, cardiovascular diseases (including stroke), and mental health disorders have become leading causes of death. Since 2015, mortality rates linked to NCDs have been rising in Kenya (WHO, 2023). Projections indicate a 17% global increase in deaths from NCDs over the next decade, with Africa experiencing a 27% rise, translating to an additional 28 million deaths (WHO, 2023). By 2030 NCDs are expected to be the leading cause of global disability. The high prevalence of NCDs in Africa is framed by influential bodies like the WHO as "one of the major challenges for development in the twenty-first century" (Herrick and Reubi, 2021). This relationship between chronic diseases and development is twofold: On one hand, the NCD epidemic is seen as a byproduct of socio-economic development, driven by factors such as economic growth, urbanization, an aging population, and "modern unhealthy lifestyles" (such as unhealthy diets, physical inactivity, or tobacco/alcohol use). On the other hand, the growing burden of NCDs is viewed as a threat to sustainable development, as it reduces the productivity of working-age populations and adds a "double burden"—or, more recently, a "quadruple burden of disease"—to health systems already strained by infectious diseases (Manderson and Jewett, 2023; Vaughan et al., 2021, p. 8). The trajectory of COVID-19 in Europe and North America, combined with the rising prevalence of NCDs in Africa, Asia and Latin America, has marked recent years as pivotal in reshaping our understanding of both existing and future health threats (Gaudilliere et al., 2022). These developments underscore the overlapping syndemics of infectious disease, poverty, and chronic conditions, emphasizing the global scale of these interconnected challenges (Vaughan, 2019). In this way, living with chronic diseases has become a daily reality for an ever-growing number of people (Manderson and Wahlberg, 2020, p. 431). Chronic conditions manifest in specific ways in each life, family, and region, but they also result in unevenly patterned injuries and deaths in all countries (Moran-Thomas, 2019).

Yet despite growing concern about the burden of mortality and morbidity attributable to NCDs in countries like Kenya, political action to implement treatment and prevention programs

has not necessarily followed. Political and social scientists have begun investigating the relative neglect of NCDs, exploring how NCD precariousness is produced and why it persists, particularly in comparison to other global epidemics (Herrick and Reubi, 2021). They highlight the role of expert and advocacy networks, as well as the framing of health priorities. Unlike other global epidemics (HIV, malaria, tuberculosis), NCD mitigation remains significantly underfunded by global donors and overlooked by health policies in Africa (Whyte, 2012). Currently, only 3% of global funding is allocated to all NCDs combined. Social science scholars argue that this lack of attention is deeply tied to the politics of disease categorization and dominant epidemiological imaginaries. Chronic diseases have often been perceived as incompatible with the "developing world" paradigm in public health discourse (Reubi et al., 2016, p. 181). This oversight has rendered the rise of NCDs largely invisible in many parts of the world, including in Kenya. As a result, conditions of vulnerability are exacerbated, leaving many individuals with NCDs poorly treated (Manderson and Jewett, 2023; Prince, 2021). Moreover, as anthropologists have shown, African NCD patients remain largely invisible to global health frameworks, which are shaped by narrow biomedical conceptions of "metabolic disorders".

Vaughan (2019, p. 133) has famously argued that while most academic discussions of contemporary African change avoid the "trope of modernization", the growing focus on NCDs has revived this language, so much so that medical discourse, including the Ayurvedic frameworks I encountered in Africa, is now steeped in it. NCDs are commonly framed as "lifestyle" diseases, implying that failure to mitigate risk through behavioral change reflects a lack of self-control (Manderson and Jewett, 2023). However, this individualistic lens is deeply flawed. In Kenya, NCD patients navigate a landscape of challenges, struggling with conditions that develop slowly, often go unrecognized, are complicated to diagnose, and are costly, complex, or intimidating to treat. These challenges are exacerbated by treatment insecurity, stemming from limitations in diagnostic technology, chronic care infrastructure, and the specific clinical realities of African health systems, which are underfunded, heavily reliant on donors, and focused primarily on infectious disease (Whyte, 2012). As a result, NCDs (Swahili: *maradhi ya siyo ambukiza*) are insufficiently addressed at primary-care level. In response to these systemic barriers, a politics of living and care has emerged, whereby patients try to actively manage their health journeys and seek alternative ways to understand chronic conditions. Ayurveda stands out as one popular approach, as patients aim to improve their health by seeking alternatives to conventional medical treatments. For some, like Sarah—a 58-year-old diabetic and hypertensive patient who also experienced a stroke—the concept of chronicity is contested. Although information on diabetes and hypertension care is available in public health facilities, continuous access to life-saving treatments, regular testing, and adequate care—critical for managing chronic conditions—is often limited. The biomedical paradigm of chronicity often fails to account for the uncertainties shaped by individuals' life circumstances and limited access to care (see Manderson and Wahlberg, 2020). Reflecting on her experience, Sarah explains: "One day, my [blood] pressure became very high, and I was re-admitted [to hospital], but they only taught me exercises. So, I requested to be discharged. It takes time to heal. At his clinic [referring to Ayurvedic doctor], I can focus on myself."

Anthropologists have shown that in contexts of restricted treatment access, chronic illness is rarely experienced as stable or unchanging (Greco and Graber, 2022). Rather, socio-economic conditions, the accessibility of diagnostic tools, and culturally or financially feasible treatment options shape the lived experience of chronic disease (Moran-Thomas, 2019; Caduff and van Hollen, 2019; Manderson and Smith-Morris, 2010; Whyte, 2016). The biomedical view frames chronic diseases as long-term, incurable, and requiring ongoing management through medication, lifestyle adjustments, or medical interventions (Whyte, 2012). In contrast, some perspectives view chronic conditions as dynamic, reversible, or influenced by social and environmental factors. Here, care becomes less about making ideal decisions and more about continually "calibrating" the best possible use of available healthcare resources. Patients often navigate not only the cyclical and unpredictable nature of their conditions but also differing concepts of chronicity. Some resist the label of "chronic", as it fails to capture the uncertainty they face, while others struggle to maintain access to treatment. In some cases, chronicity itself becomes a form of structural violence, where the lack of access to life-prolonging treatments prevents conditions from being recognized as chronic. For some, sustaining a chronic condition requires mobilizing resources, such as traveling abroad for treatment, forging connections with new medical institutions, or purchasing their own healthcare equipment.

For Sarah, effective care came from Dr. Ayurved Anand Saaran, a Kenyan-based Ayurvedic therapist specializing in NCDs. Originally from Kerala, South India, Dr. Anand began practicing Ayurveda in Nairobi in the late 1990s and established a prominent Ayurveda care center by 2006. His practice is driven by an aspiration to blend Ayurveda's medical and political potential, with the aim to advance its scientific legitimacy. Dr. Anand views Ayurveda as a practical solution to the growing burden of chronic NCDs, a challenge particularly evident in his clinic's patient cases. Holding a bachelor's degree in Ayurvedic Medicine and Surgery from India and a diploma in reflexology from London, he works as an Ayurvedic therapist, spiritual mentor, yoga teacher, and entrepreneur. At his clinic, he fluidly navigates between Hindi, Kiswahili, and English, and encourages his Kenyan assistants to embrace Ayurveda not only as a profession but also as "a source for healing in order to serve mankind". He describes Ayurveda as a "lifestyle adopted to maintain harmony within human existence", with the aspiration: "We want to serve humanity with the benefits of Ayurveda."

Dr. Saraan believes that NCDs are primarily caused by "modern" lifestyles and behaviors, including poor diet, physical inactivity, smoking, alcohol consumption, reliance on processed and adulterated foods, excessive sugar intake, sedentary living, or chronic stress. These stressors, which also often contribute to mental health disorders (Lang, 2020), are particularly prevalent in the urban environment of modern-day Nairobi. Consequently, life-style changes and personal empowerment are central to his therapeutic approach. Ayurvedic formulas, he suggests, aim to "lead people back to their true natures" (see Bode, 2006, p. 231). Dr. Saaran's clinic, located in a modern flat within a neighborhood with

a large Indian community, serves approximately 150 patients each month. According to him, Ayurveda offers reliable and effective solutions for NCDs, particularly through its ability to manage "lifestyle." He attributes this efficacy to Ayurveda's three-fold treatment framework—preventive, curative, and rejuvenative—which is designed to address imbalances in bodily *doṣas* (Hindi, lit. somatic-psychological entities that regulate system, subsystem, and organ functions). Chronic illnesses, he explains, arise from disturbances in these *doṣas*, progressing through six stages known as *Shad Kriya Kala*. This framework, he argues, is what sets Ayurveda apart, allowing it to transform the very factors that sustain health into tools for combating disease. At the core of his patient care is education aimed at improving condition management. This management involves various approaches such as prevention, therapy, risk reduction, rehabilitation, and access to supportive resources. Dr. Saaran and his clinic staff emphasize lifestyle modification strategies in their sessions, often using the threat of future disability as a motivational tool to encourage patients to make essential changes to their habits. Dr. Saaran and his team promote a wholesome lifestyle, which targets primarily the growing urbanized middle and upper classes in Nairobi, who can afford the average $40 consultation fee and are much affected by NCDs. His therapies incorporate cleansing procedures to expel bodily toxins (known as *ama*) and restore balance to the *doṣas*, promoting physical, mental, and spiritual wellbeing. In addition to detoxification, Dr. Saaran offers stress management programs, therapeutic yoga sessions, and dietary guidance. For Ayurvedic practitioners like Dr. Saaran, healthy eating is more than nutrition; it is a distinct field of medical knowledge. Their approach to the food–body–medicine nexus is framed through the concept of the "the body's porosity," emphasizing the interplay between bodies, food, fat, ingestion, absorbed substances, food, and allopathic medicines. This perspective highlights how these elements interact and shape health in profound ways. Another essential aspect of his practice is the use of Ayurvedic herbal formulations. These customized blends, tailored to each patients' unique body constitution, serve both preventive and curative purposes. Other medicines, such as Ayurvedic pharmaceuticals, closely resemble biomedical products and are prominently exhibited in his waiting room. During consultations, Dr. Saaran provides detailed instructions on dosage, mode of administration (typically oral), timing (such as evening use), duration of treatment, and specific clinical indications.

Among his bestsellers is *Charak*'s anti-hypertensive drug, praised for being made entirely of natural ingredients. This formulation is claimed to enhance cardiac function by leveraging its anti-inflammatory, antioxidant, and lipid-lowering properties, promoting the proper functioning of the heart and blood vessels. Dr. Saaran emphasizes that his patients are particularly drawn to these kinds of Ayurvedic medicines because of their perceived lack of side effects. Many see them not only as alternatives to conventional biomedical drugs but also as complementary therapies that help improve tolerance to such medications, especially for managing chronic conditions. The acceptance and adoption of Ayurvedic therapies are intertwined with the social context and the desire for optimal care. Dr. Saaran's therapy rooms are adorned with academic credentials, Indian craft decorations, and equipment used for *Panchakarma*, Ayurveda's primary personalized detoxification treatment. For patients of Indian origin, these treatments resonate with their medical traditions, serving both to maintain cultural identity and to engage with a shared cultural heritage. For those unfamiliar with Ayurveda—and, as Dr. Saaran explains, possibly skeptical of it—he assures them of an "easy transition." He does not require NCD patients to stop their biomedical treatments but encourages them to integrate Ayurveda as a "natural", "non-aggressive" alternative. The positioning of Ayurveda as an alternative modernity reflects broader biopolitical dynamics. Practitioners like Dr. Saaran navigate a healthcare landscape where providers and pharmaceutical industries engage populations through biopolitical frameworks, structuring care around perceived disease burdens. In this context, Ayurveda is a strategically positioned response to the growing burden of NCDs in urban populations. A prevailing stereotype within the field reinforces this positioning, suggesting, as Dr. Saaran stated, that "Indians are more concerned with [preventive] health care," whereas "Africans, being more result-oriented, focus on [emergency-related] sick care." Both Dr. Saaran and other practitioners I encountered argued that expertly practiced Ayurveda not only delivers effective results but also serves to shift "African attitudes" toward a more preventive approach to health. Moreover, labeling Ayurveda as an "alternative modernity" in this context provides a stark distinction from local "traditional" medicine (*dawa ya kienyeji*), distancing it from associations with spirit cults or witchcraft. This rebranding is politically motivated, aligning Ayurveda with local expectations and addressing the ongoing reservations that biomedical representatives in Kenya hold toward Indigenous practices. Through this approach, Ayurveda positions itself as both a culturally embedded and scientifically credible alternative (see Nichter, 1996, p. 204; Wujastyk and Smith, 2008, p. 2), thus capitalizing on the growing dissatisfaction with conventional healthcare systems and the expanding burden of NCDs.

Similarly, Ayurvedic entrepreneurs such as Anjali—whom I previously introduced in the context of her entrepreneurial engagement with her self-established clinic—further exemplify this trend. She emphasized a paradigm shift in response to the NCD pandemic among Kenyan patients. This shift is reflected in a growing interest in natural and preventive healthcare, which she sees as driving the expansion of Ayurvedic treatments across the city. "Rather than treating illnesses, patients seek to preserve their health," she explained. This "Ayurveda boom," as she calls it, is a direct answer to the perceived neglect of chronic conditions by the biomedical system. Together with her assistant, Dr. Mahesh, she has made prioritizing NCDs central to her clinic's health agenda. Their clinic, with its white walls adorned with posters illustrating the body's meridians and risk behaviors that provoke NCDs, draws legitimacy from practitioners' white coats and stethoscopes, which mirror the attire worn in biomedical settings. In these self-regulated therapy environments, where patients pay out-of-pocket, practitioners like Dr. Mahesh must cultivate trust through relational, physical, and material connections. Platforms like WhatsApp and Facebook groups act as hubs for sharing knowledge on NCD prevention and treatment, providing patients with advice on lifestyle changes and dietary choices. Dr. Mahesh also offers

online Ayurveda lessons to foster greater confidence among his clients and integrates "modern" diagnostic tools like glucometers and ultrasound software for biofeedback to validate patients' subjectively reported health improvements (Adams, 2002).

In addition to therapeutic settings where there is an established demand, Ayurveda is also expanding into entirely different social contexts. For example, Didi Ananda Rukmini, who took a monastic vow in India, has dedicated her life as a Hindu nun to spiritual practice and humanitarian service. Trained in homeopathy, acupuncture, and Ayurveda, she arrived in Kenya in the 1990s and began her work in the Soweto slums. In these marginalized areas on the outskirts of Nairobi, high pollution levels from sewage and waste contribute to a rising incidence of NCDs such as cardiovascular conditions. Didi consistently emphasized the religious and spiritual dimensions of her Ayurvedic practice. Her orange garments—symbolizing both fire and meditation—serve as a visible reminder of her vows and spiritual orientation. She frames her treatments as a form of spiritual cleansing, describing Ayurveda as a "gift from the Vedas" that aligns the body with divine cosmic energies. In her marketing, she invokes Hindu metaphors, referring to herbal therapies as *prasad,* a sacred offering to one's own health, thereby blending healing with devotional symbolism that transcends geographical boundaries. The religious element of her practice and her use of faith-based metaphors are not merely personal expressions, but strategic components of her marketing rhetoric—reflecting the motivations and persuasive strategies employed by those introducing Ayurveda to African audiences. Moreover, her mission is to make Ayurveda accessible not only to the middle class but to all patients. Ayurvedic products are often provided for free (depending on donations) or sold at more affordable prices ($1–3). According to Didi Ananda, Ayurveda's perceived effectiveness is largely attributed to the belief that its products are not associated with side effects. Practitioners like her emphasize this as a key advantage of Ayurvedic medicines—though the claim is questionable. Ayurvedic formulations, particularly those containing heavy metals, can also produce adverse effects, a concern central to the pharmaceuticalization thesis (see Banerjee, 2009).

4 Discussion

As I have shown in this article, Ayurveda is "going global" by virtue of its perceived "qualitative strength". It is being transformed from a culturally specific healing practice to a repository of herbal formulations, where assumptions of efficacy are grounded in biomedically scientific frameworks rather than in its native epistemologies (Bode, 2006, p. 231). Following Pordie (2008, p. 4), the development of Ayurvedic medicines for the global market is reshaping medical provision at the national level while driving expansion into the international market. Ayurveda is now embedded in (inter)national medical, political, and economic landscapes, undergoing reinvention through complex social processes—including health and drug policies, global economic logics, and the evolving aspirations of practitioners, entrepreneurs, and patients. At the same time, new markets emerge as patients, doctors, and regulatory bodies internalize and selectively adopt aspects of Ayurveda that appear most effective and appealing within contemporary healthcare systems.

This case study from Kenya sheds light on the evolving forms of modern Ayurveda, offering two key contributions to the literature. First, it examines how Ayurveda is being positioned in East Africa, particularly through collaborations between entrepreneurs, the pharmaceutical industry, and practitioners. These actors bank on the historical Indian Ocean connections, drawing on fertile ground of shared cultural practices, idioms, and therapies to establish Ayurveda in Kenya, specifically Nairobi. Rather than a simple transfer, Ayurveda is strategically reconfigured within new socio-political landscapes, offering insights into how traditional medical systems adapt, integrate, and gain legitimacy within contemporary global health frameworks—including efforts to "make the ocean Indian again" through healthcare. Second, this study highlights how Ayurveda is being framed as a response to the growing burden of NCDs in Kenya. Ayurvedic practitioners and entrepreneurs link these diseases to the consequences of modern life, including processed foods, stress, and sedentary lifestyles, promoting Ayurveda as a superior alternative rooted in the principle of balance. Through this lens, Ayurveda is not only presented as therapeutic care but also as a tool for mitigating the broader health challenges of contemporary life.

The article demonstrates how aspirations for profit, development, as well as political and medical influence are legitimized, contested, and shaped by political and economic forces. The concept of "connectivity in motion" captures the fluid interactions within and between health arenas in the Indian Ocean, highlighting the continuous reconfiguration of healthcare networks, knowledge systems, and markets. This concept underscores how medical practices are not only mobile but also undergo transformation as they traverse different regions, adapting to local needs. Actors like Vivaan, Anjali, Dr. Mahesh, Dr. Saraan, and Didi Ananda exemplify how these aspirations drive the expansion of Asian health industries, where global health initiatives intersect with local practices to shape new medical landscapes.

This dynamic is particularly evident in the context of the NCD epidemic, where systemic barriers to biomedical care have facilitated the strategic adoption of alternative medicine, such as Ayurveda. As public health systems struggle with resource scarcity and political neglect, alternative healing practices come increasingly to the fore, not merely as adjuncts to biomedical treatment but also as a source of meaning and comfort. Beyond treating symptoms, NCD management centers on restoring the self and reinforcing social connections, both essential to wellbeing. This process signals distinct forms of pharmaceuticalization in healthcare, diverging from those seen in previous global epidemics. Efforts in epidemics such as HIV/Aids or malaria, though deeply entangled with commercial interests, were largely structured around universal access and mass treatment campaigns, emphasizing the rapid development of biomedical solutions. Current approaches to pharmaceuticalization in the context of NCDs and Ayurveda reflect a more segmented, market-driven model, where commercial actors and individuals' aspirations play an important role in shaping health interventions. As Whyte (2012) notes in Uganda, the prevention and treatment of rising epidemics like NCDs expose disparities between richer and poorer, urban and rural, and more and less educated populations. Those

with greater resources not only have access to pharmaceuticals—such as those prescribed by Dr. Saraan—but can also afford Ayurvedic detoxifiers or mitigate urban stress through Yoga. As seen elsewhere, health consciousness and lifestyle serve as markers of sophistication, yet remain accessible to only a small segment of the Kenyan population.

While these disparities in access to resources and healthcare options underscore the importance of addressing the social determinants, understanding Ayurveda's role in NCDs requires further inquiry. In particular, it is essential to examine how the framing of health practices individualizes risk, overlooking the broader structural factors that influence chronic disease outcomes. While the practitioners I encountered acknowledged certain structural determinants of health, their approach ultimately reflected a broader tendency within NCD discourse to individualize risk—failing to recognize that so-called "lifestyle choices" are often imposed rather than actively made. This perspective neglects other complexities of metabolism beyond individual control, such as exposure to stressors of poverty, inequality, food systems, or environmental conditions (Adjaye-Gbewonyo and Vaughan, 2019; Bunkley, 2021). The most harmful foods, such as white sugar, white rice, white flour, and industrially produced vegetable oils, are also the cheapest and most widely consumed in urban centers like Nairobi. This is not incidental but a direct consequence of political-economic structures of development, with urbanization playing a central role in shaping food access, work conditions, and patterns of daily life—reflecting upstream drivers of public and global health that are historically rooted in processes such as colonialism and industrialization. As Whyte (2016) and Moran-Thomas (2019) argue, NCDs are better understood as being linked to changing life *conditions* rather than *styles*, implying a larger perspective, in which medical problems occur in particular social, economic, and historical circumstances. In this light, the expanding Ayurveda market—while positioning itself as an alternative—fails to engage with the deeper structural drivers of ill health. Industrialization and shifts in agricultural production have contributed to food insecurity and changing consumption patterns, which in turn exacerbate the burden of NCDs by promoting reliance on nutrient-poor diets, heightening chronic stress, and restricting access to consistent care and medication—ultimately amplifying metabolic and cardiovascular risks. Yet, responses to NCDs, including those rooted in Ayurvedic frameworks, remain largely anchored in lifestyle interventions.

This mirrors a broader trend in the pharmaceuticalization of Ayurveda, one that started in India and was carried over to Africa. As Ayurvedic practitioners and industries attempt to position themselves within a modern healthcare economy, they increasingly delink Ayurvedic medicines and treatments from their foundational Aryurvedic epistemology, which is rooted in balancing multiple aspects of body and mind, the assessment of humoral status, and a holistic approach that considers the patient's entire way of life. This process of delinking allows Ayurveda to appear "modern," yet rather than offering a true alternative, it becomes a mirror image of biomedical modernity. As has been discussed in the context of Ayurveda's pharmaceuticalization, this transformation is largely driven by the commercial imperatives of the Indian pharmaceutical industry, which shapes not only the production of medicines, both classical and proprietary, but also the very discourse of health and disease. Ayurveda's evolution in the modern era is marked by its global dissemination and ideological shifts, particularly as it is integrated into diverse healthcare systems, including those in Africa. This process reflects broader tensions between tradition and commercialization, as Ayurveda is repositioned within contemporary medical and wellness paradigms. Thus, in the contemporary Ayurvedic industry, lifestyle functions both as cause and as market: NCDs are framed as lifestyle diseases, creating a demand for interventions. Understanding alternative modernity in this context requires moving beyond Ayurveda as a mere counterpoint to biomedicine and instead analyzing how it is embedded in the political, economic, and epistemological shifts that define the Ayurvedic industry and transnational pharmaceutical circuits today.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving humans were approved by National Commission for Science, Technology, and Innovation (NACOSTI) under clearance reference number NACOSTI/P/16/28233/12938. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study. Written informed consent was obtained from the individual(s) for the publication of any potentially identifiable images or data included in this article.

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Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Generative AI statement

The author declares that no Gen AI was used in the creation of this manuscript.

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