Introduction

Situated at the crossroads between the history of colonialism, of modern Southeast Asia and of medical pluralism, this book traces the "life of pharmaceuticals" in Vietnam under French rule. By focusing on the circulation and consumption of *colonial medicines* from the last third of the nineteenth century to the eve of World War II, it addresses neglected, and sometimes surprising, facets of the medicalization of Vietnamese society.[1] By colonial medicines, I mean not only medicines introduced and distributed by the colonizers, but also, importantly, medicines that were generated within and (re)defined by the process, and experience, of colonization. This book covers a period during which pharmaceuticals as we now know them were being defined, when their characteristics became stabilized and their modalities of distribution were tightened. It illuminates, by placing them side by side, two predominant, apparently contradictory, features of the changing sphere of Vietnamese health care during this period. On the one hand, there were persistent and serious problems of accessibility. On the other hand, a plurality of options was on offer. Constantly under negotiation, these reveal clear manifestations of patient agency. More broadly, I seek to historicize the roles and identities of medicines in the Global South by going back to the early phases of the modern pharmaceutical industry's expansion and globalization, before the advent of antibiotics.[2] Also in these pages, I describe the tricky task of interpreting heterogeneous and fragmented sources, which are full of omissions and of dissonant discourses. I hope this will contribute new ways of investigating and writing (colonial) histories of health.

[1] I address medicalization as a historical process that, from the end of the eighteenth century, redefined problems and behaviors as "medical," falling under the purview of medical professionals and institutions, state laws and policies. The process cannot be reduced to social control, even in colonial contexts; rather, it is a negotiated encounter between a "supply" and "demand" that is both variable and complex.

[2] The choice of this chronological endpoint also recognizes World War II as a watershed in the medical history of Vietnam, opening onto thirty-five years of war and instability (beginning with Japanese occupation of Indochina in 1940), associated with major challenges and deficiencies in the provision of health care.

Reinterpreting Discrepancies

The government doctors working for the Assistance médicale indigène (AMI; Native Medical Assistance) very rarely wrote about medicines. When medicines were mentioned in the reports that, from 1907, they were required to submit to the Inspection générale d'hygiène et de santé publique (IGHSP; General Inspection of Hygiene and Public Health), this was usually in the budget section.[3] Here, we can sometimes track down a number: an amount allocated to "medicines and materials" – the latter term encompassing surgical instruments, hospital bedding, cleaning and disinfecting products – for the district hospital or clinic under the physician's responsibility. Occasionally, report authors might make some marginal comments on attempts to alleviate the situation (particularly in accounts of local outbreaks of infectious disease) with an emergency pharmaceutical treatment. There were also usually a few lines, often repeated word for word from one report to the next, on the operation of the Service de quinine d'état (State Quinine Service), created in 1909 to distribute quinine in zones of high malaria prevalence. A similar indifference to therapeutics prevailed in medical journals: these published a small number of reports, mostly of hospital-based trials of arsenical or sulfa drugs, the two "wonder drug" classes of the 1910s to 1930s, and of field trials of quinine-based prophylaxis.

Most (of the relatively few) mentions of medicines in colonial sources addressed the problem of inadequate consumption or even outright refusal by "the natives." A common assertion was that, as a general rule, the Vietnamese only deigned to accept the therapeutic options proffered by AMI doctors as "a last resort." For many clinicians, this "last resort recourse" was explained by a shared, indeed a cultural, indifference to disease and its consequences, and a tenacious mistrust of Western medicine.[4] In short, it was a product of collective ignorance paired with

[3] The translation of French institutional names, of French colonial categories, and of some pharmaceutical terminology into English poses problems of equivalence in relation to their specific meanings and uses in the context of the French history of colonialism and pharmacy. Original French terms will be given and used wherever appropriate throughout the book, along with a faithful, yet explicit English-language translation, on the basis of the terms used in similar contexts at the time (e.g., the term "native," rather than "indigenous," is the British colonial equivalent of *indigène*).

[4] Contemporary sources referred to the medical system they saw as originating in Europe, and as anchored in scientific validation and discovery, as, alternately, "European," "modern," and "scientific." When I seek to echo actor's emic designations, I also use these terms. In other cases, I use the more neutral term "biomedicine," which refers to the increasingly close relationships between medicine and biological sciences without making claims as to its geographical origins, epistemological universality, or temporal status. In colonial contexts, the use of this term recognizes that "non-Western" medicine can also be "modern," while biomedicine can also be "non-Western."

resistance to change. Its corollary, AMI doctors complained, was that the Vietnamese persisted in trusting "their" medicine. In 1913, the AMI médecin-chef (head doctor) of Ha Giang Province, in Tonkin, the northern part of Vietnam, reported that the sick "would come to [him] only when they have already exhausted the resources of the Chinese pharmacopeia."[5] Eighteen years later, the Directeur local de la santé (local director of health) for the Protectorate of Tonkin wrote, "Clientele – [. . .] We treat one tenth of the population, the chronic, inveterate, the most difficult cases, mostly incurables; nine tenths go to the empirics."[6]

Empirics were practitioners of "Sino-Vietnamese medicine," whose remedies were seen as a major public health risk, either because they were toxic, improperly handled, or therapeutically ineffective.[7] Indeed, the risk of poisoning associated with these "dangerous remedies" was probably the most prevalent theme in colonial discourses on therapeutics. In the very first volume of what would become the colony's main medical journal, the *Bulletin de la Société médico-chirurgicale de l'Indochine* (BSMI; Bulletin of the Medico-Surgical Society of Indochina), established in 1910, Dr. Édouard Sambuc described two cases of fatal poisoning caused by "native medicines" for gonorrhea that happened at the hospital of Haiphong where he worked. In one case, a twenty-five-year-old patient had "suddenly, without any warning sign, chang[ed] expressions, let out a piercing scream and beg[an having] convulsions, los[t] consciousness, making a croaking sound now and then." Sambuc concluded: "We must note [. . .] the rapidity of death, the powerlessness of therapeutics in the face of this poisoning."[8] The sensationalism in the narration of this tragic

[5] "Rapport sanitaire annuel de la province de Ha Giang, 1913," Archives nationales d'outre-mer, Aix-en-Provence, France (hereafter ANOM), Fonds de la Résidence supérieure du Tonkin nouveau fonds (hereafter RST NF) 4014.

[6] "Direction locale de la santé du Tonkin. Rapport annuel de 1931," ANOM, RST NF 3683. Although "empiric" is an often vague designation, in colonial contexts it was usually used to characterize a person or practice as devoid of scientific and rational underpinnings. Many colonial doctors believed that local medical practices, "traditional" practices, were based on trial and error rather than cumulative, validated, and shared knowledge. Although based on an extensive pharmacopeia, Vietnamese medicine could, according to some, hardly claim a scientific status given its lack of "rigorous" knowledge of physiology, anatomy, and symptomatology, of specialization and of diagnostic and therapeutic technologies.

[7] The adjectives "Sino-Vietnamese" and "Sino-Annamese" were used by colonial health authorities to designate the most visible local medical system and to emphasize its Chinese roots. I prefer the term "Vietnamese medicine," which I use to designate dynamic and hybrid traditions that were identified as specific to Vietnam. However, I keep the term "Sino-Vietnamese" to designate the remedies and pharmacopeia used in Vietnamese medicine at the time as well as medical actors who identified themselves as such.

[8] Dr. Édouard Sambuc, "Deux cas mortels d'intoxication par des médicaments indigènes employés contre la blennorragie," BSMI 1 (1910): 502–3, 506.

event was surely meant as counter-propaganda targeting Vietnamese medicine. Yet it also manifested strong colonial anxieties about a wide range of dangerous substances, individuals, and polluted places.[9] These anxieties are more explicit in the following account of an incident that affected a soldier of the Garde indigène (Native Guard) in Nam Dinh, Tonkin, in 1916:

> The unskilled laborer [. . .] Dang-Dinh-Huyen had, in the evening of Tuesday March 14 of this year, during a fit of madness caused by the ingestion of Chinese medicines, ripped apart his clothing, a kaki vest and a kapok jacket, to the point where they are absolutely unusable. Asked about it, Dang-Dinh-Huyen declared the following: having suffered for the last few days from headaches, I decided to go to a seller of Chinese medicines hoping that the medicines that I would get would bring me some relief. I do not know whether the concoction that was sold to me [. . .] did me any good, but what I am sure of, is that it did me lots of harm. Indeed several minutes after absorbing it, I was literally mad, I no longer knew at all what I was doing, thus I had a very unpleasant surprise when, having recovered my sanity, I noted the lamentable state of my belongings.[10]

This type of incident was not uncommon – that is, if we take the health authorities at their word. Apparently, a few young soldiers even died because they had put "too much trust" in their empirics. Such statements clearly reveal AMI doctors' ignorance and contempt of the prevailing models of health and health care among those they sought to convert to the benefits of scientific medicine. They manifest a typical biomedical arrogance toward "the native patient" – viewed as inherently credulous and ignorant, as was indeed also thought of French patients at the time – but also toward any other medical system, considered to be, by definition, irrational, ineffective, even dangerous, and thus de facto made subaltern, if not criminalized outright.[11] Yet according to annual reports of the Bureau d'hygiène (Hygiene Office) of the City of Hanoi, the total number of deaths due to poisoning, both accidental and criminal, caused by toxic substances did not exceed five per one thousand in the period 1923–29. This was comparable to the rate of suicide mortality, but ten times less

[9] David Arnold, *Toxic Histories. Poison and Pollution in Modern India* (Cambridge: Cambridge University Press, 2016).

[10] "Décès survenus parmi les volontaires de l'Annam, 1916," ANOM, RST NF 896.

[11] I define "medical system" as a medical culture – that is, a set of shared conceptual foundations and practices, upheld within one or more social groups: Steven Feierman and John M. Janzen, *The Social Basis of Health and Illness in Africa* (Berkeley: University of California Press, 1992), 163–64. On subaltern therapeutics, see: Projit Mukharji and David Hardiman, ed., *Medical Marginality in South Asia: Situating Subaltern Therapeutics* (Abingdon: Routledge, 2012).

than deaths caused by gastroenteritis and forty times less than deaths caused by bronchial pneumonia.[12]

Such oft-repeated remarks do, however, also indicate that even if the Vietnamese consulted AMI doctors only as "a last resort," they did indeed consult them. They thus hint at practices of medical pluralism – that is, of combining the use of biomedicine with one or more other medical systems. This suggests that seeking and taking pharmaceuticals was one of the ways in which the Vietnamese grew increasingly familiar with biomedicine. Indeed, there were also occasional complaints in AMI reports that some patients saw public hospitals as mere "free pharmaceutical shop[s]" and the clinician as an "automatic medicines distributor."[13] From the interwar period, a few medical professionals also began to note that the Vietnamese seemed to "appreciate more and more," and thus to request "some" Western medicines, such as Antipyrin, santonin, and arsenobenzols. They did not, however, ponder the meaning and underlying reasons of lay practices of therapeutic selection and self-medication, nor did they wonder how these practices were changing as a result of colonization. The consumption of medicines by the colonized was seen as inherently problematic (if only because it often bypassed doctors), and certainly not a topic of serious reflection.

Dr. Nguyễn Văn Luyện had, it seems, a different view.[14] After graduating as a state-qualified doctor of medicine in France in 1928, Nguyễn Văn Luyện worked for the AMI before setting up a private practice in 1931 in Hanoi, the colonial capital. At that time, he began devoting part of his career to educating his compatriots about the benefits of biomedicine. He founded and edited the monthly serial *Bao an y báo. Revue de vulgarisation médicale* (BAYB; Popular Medical Magazine), which was published from July 1934 to January 1938. He invited BAYB readers to write to him directly and, in response, offered personalized health advice. This "letters to the editor" rubric took up several pages in each issue. On average, about half of the questions asked in these letters were about medicines used in the past, ongoing courses of treatment, or medicines for potential future use. These included, according to a list I compiled, references to nearly 650 different medicines – including 250 (nearly 40 percent) by name. About 350 (over half) of these medicines were *spécialités pharmaceutiques* (pharmaceutical specialties), trademarked

[12] Gouvernement général de l'Indochine, *Annuaire statistique de l'Indochine, 1923–1929* (Hanoi: Imprimerie d'Extrême-Orient [IDEO], 1931), 111, 126.

[13] Dr. Paucot, "Discussion sur l'emploi du Salvarsan aux colonies," *Bulletin de la Société de pathologie exotique* (BSPE) 6 (1913): 240.

[14] I have respected Vietnamese diacritics whenever possible – that is, when they were specified in my sources.

products manufactured by the pharmaceutical industry.[15] Some of these were toxic but highly effective drugs, such as "914," an arsenobenzol compound used to treat syphilis. Marketed under several brand names, this drug was mentioned fifty-seven times by readers, which averages out to more than once per issue. BAYB readers also evoked cutting-edge products that, in some cases, had arrived in Vietnam only a few months earlier. For example, Folliculine, a synthetic ovarian hormone launched by the French firm Roussel in 1932, was mentioned in early 1934.

The published correspondence between Nguyễn Văn Luyện and his virtual patients contradicts the dominant discourse among AMI doctors. Were I to write a colonial history of medicines based exclusively on an analysis of the letters-to-the-editor section of the BAYB, I would conclude that the Vietnamese consumed medicines profusely, and that pharmaceuticals were widely available, well-trusted, and familiar commodities, and one of the main objectives of therapy-seeking. Letter writers did not, however, consume medicines indiscriminately. They often wondered about a specific product's toxicity and side effects, or another's lack of efficacy, seeking out information for selecting the most effective medicines, with the fewest possible risks. This paints a picture that is very far from the figure of the ignorant, resistant patient or of the occasional yet exasperating consumer, as depicted by medical periodicals and AMI reports.

Toward a Colonial and Vietnamese History of Modern Medicines

One way of reconciling these conflicting discourses would be to point out that Vietnam changed between the first years of the AMI (created in 1905) and the time when the BAYB was published. There is value in this statement. Vietnam garnered the lion's share of attention and resources among the territories that formed the Union indochinoise (Indochinese Union) or French Indochina from 1887 to 1947, placed under the authority of a Gouverneur général (governor general) who represented the French Republic.[16] Here, colonial policies of

[15] Translator's note: the specificity of national pharmaceutical markets and industries in the nineteenth and early twentieth centuries generated distinctive terminologies. Thus, there is no commonly-used equivalent term in English for *spécialité pharmaceutique* (sometimes approximated as "proprietary drug"). I have opted to use the literal translation throughout this book.

[16] L'Union indochinoise or Indochine française was created as an administrative umbrella for five distinct territories (*pays*): a colony (Cochinchina), administered by a governor, and four protectorates (Tonkin, Annam, Laos, and Cambodia), administered by Résidents supérieurs (superior residents). I generally use the term "colony" more broadly

centralization, economic exploitation and *mise en valeur* – a policy for "improving" the economic potential of colonies developed and popularized by the Minister of Colonies and former Governor General Albert Sarraut in the early 1920s – were applied with the greatest vigor.[17] Some have characterized this colonization of Vietnam as "total": a "model" totality that joined both colonial enterprises – to exploit and to civilize – at the intersection of which was the project of taking the health of "the natives" in hand.

The drawn-out French conquest and pacification of Indochina in the second half of the nineteenth century was well timed to enlist medicine as a "tool of empire."[18] This was a time when the cultural authority of biomedicine as modern, expert, and scientific was growing. It became a realm of professionals, to be accredited and protected by the state. As the links between the clinic and the laboratory grew stronger, significant progress was made in the scientific understanding and control of tropical diseases. Bacteriology, usually seen as the paragon of this "new" medicine, was, in the French world, dominated by Pasteur and his acolytes (the "Pastorians"). The synchronicity between the "bacteriological revolution" and the stabilization of colonial rule in Indochina created an opening for the Pastorians to quickly export their science and institutions overseas. Indeed, the Pastorian ambition to master tropical pathological environments was welcomed by a colonial government grappling with high rates of mortality and morbidity. It is no coincidence that the first Institut Pasteur d'outre-mer (Overseas Pasteur Institute) was established in Saigon in 1891, only three years after the Parisian headquarters opened its doors. By the late 1930s, there were four Instituts Pasteur in Indochina and three affiliated laboratories. This dense network of research facilities was unparalleled in other colonial territories.[19]

to refer to the three Vietnamese territories, or to Indochina as a whole. I use the term "Vietnamese" to designate the ethnic majority of Vietnam (of Viêt or Kinh origin), which made up 85 percent of its population at the time. Contemporary sources also used this designation interchangeably with that of "Annamese" (*Annamite*), referring to the population of the precolonial kingdom of Annam.

[17] The best overview of the history of French Indochina is Pierre Brocheux and Daniel Hémery, *Indochine. La colonisation ambiguë, 1858–1954* (La Découverte, 2001 [1994]). On mise en valeur, see Albert Sarraut, *La mise en valeur des colonies* (Paris: Payot, 1923), and Alice Conklin, *A Mission to Civilize: The Republican Idea of Empire in France and West Africa, 1895–1930* (Stanford: Stanford University Press, 1997).

[18] Daniel Headrick, *Tools of Empire. Technology and European Imperialism in the Nineteenth Century* (New York and Oxford: Oxford University Press, 1981).

[19] On the history of the AMI and the role of the Institut Pasteur in Indochina, see Laurence Monnais-Rousselot, *Médecine et colonisation. L'aventure indochinoise, 1860–1939* (Paris: CNRS Editions, 1999).

From 1905, the AMI, a public health care system, was the theatre of an ambiguous – to echo the insightful adjective used by Pierre Brocheux and Daniel Hémery to characterize Indochina's colonization – project to exploit and to modernize, through biomedicine, its agents and techniques. This endeavor was predominantly focused on the collective prevention of infectious diseases, especially those responsible for the greatest burden of morbidity and mortality in the territory. Yet the system also sought to educate the population about the benefits of Western medicine, both directly, through classes and pamphlets on the principles of hygiene, and indirectly, through the provision of free care. As AMI authorities began to take stock of the system's achievements just after World War I, a process of nativization of the health care system was initiated.[20] A growing number of indigenous health care workers were hired by the AMI, including Vietnamese doctors trained at the Hanoi Medical School, which had opened in 1902. During the same period, greater attention was given to mothers and children, as well as to conditions associated with poverty such as tuberculosis and trachoma, and efforts were made to ruralize the provision of medical care. Some statistics, such as the linear rise in the number of outpatient consultations, or the sharp drop in cases of maternal and neonatal tetanus, were encouraging. The interwar period was thus marked by a clear drive to expand both the nature and reach of colonial medicalization, creating new potential points of contact with Vietnamese health practices. By the 1930s, however, the administration was facing a series of crises ranging from the aftermath of the 1929 stock market crash to the radicalization of nationalist movements, as well as demographic pressures in zones of high population density and bitterness arising from the failure of colonial reformism and the abandonment of the policy of *collaboration franco-annamite* (Franco-Vietnamese collaboration).[21] This placed serious constraints on the expansion – dampening optimism about the achievements – of colonial health programs.

[20] Laurence Monnais, "'Modern Medicine' in French Colonial Vietnam. From the Importation of a Model to its Nativisation," in *Development of Modern Medicine in Non-European Countries: Historical Perspectives*, ed. Hormoz Ebrahimnejad (London and New York: Routledge, 2008), 127–59.

[21] Official name given to colonial policy on indigenous political participation from 1911, collaboration franco-annamite sought to grant representation to the local population through consultative assemblies elected through suffrage by census (i.e., of taxpayers only). However, the policy did not lead to any consistent reforms on the political status of Indochina and lost the support of local elites from the late 1920s: Agathe Larcher, "La voie étroite des réformes coloniales et la collaboration franco-annamite, 1917–1928," *Revue française d'histoire d'outre-mer* 82, 309 (1995): 397–420.

Given these ongoing constraints, "the passing of time" cannot entirely and convincingly account for the discursive discrepancies concerning the consumption of medicines, as noted previously. It is true that the interwar period was, in Vietnam, one of rapid social change that manifested in a flourishing press, the emergence of new socio-professional categories, dynamic local economies, and even the birth of the first feminist movements.[22] However, these changes were almost exclusively limited to urban areas, mainly to the Union's two largest cities: Hanoi, the colonial capital in the North, and Saigon, the economic capital in the South. This is also where cutting-edge hospitals, scientific laboratories, and retail pharmacies were concentrated. What role might biomedicine, and its medicines, have played in the small provincial cities of Annam,[23] or even in the remote outposts that accounted for the majority of health care facilities that filled the reports submitted to the IGHSP in Hanoi? To what extent did colonization provide access to drugs and to curative, individual, care? There is little indication that AMI doctors dispensed a greater volume of medicines in 1940 than they did in 1905, and it seems unlikely their perspectives changed much. That there is no sub-series on the subject of "medicines" or "pharmaceuticals" in the colonial archives seems, in itself, to reveal the absence of any effective pharmaceutical policy in the colony. These discrepancies must be given a voice rather than muffled. But *how*, using what historiographical, theoretical, or methodological tools, and on the basis of which alternative sources – other than the BAYB, which I discovered by accident when I came upon a (not yet consulted) copy at the National Library of France in Paris?

The first obstacle I encountered as I set out on this long research journey was the lack of historiography on medicines prior to the antibiotic era – that is, before World War II, particularly in settings other than Europe and North America. This is surprising, given that several studies pointed out, long ago, the importance of the years between the 1870s and the 1940s as a period of long "therapeutic transition" if not of "therapeutic revolution."[24] It has also been known that medicines

[22] Van Nguyen-Marshall, Lisa Drummond Welch, and Danièle Bélanger, ed., *The Reinvention of Tradition. Modernity and the Middle Class in Urban Vietnam* (Singapore: Asian Research Institute, 2012).

[23] Annam was much less a target of colonial investment than Tonkin, which was seen as having a greater economic potential. The paucity in health archives for the protectorate, relative to Tonkin, is in itself a sign of this disparity. In addition, it should be noted that the archival reference in this book to the Fonds de la Résidence supérieure d'Annam at the Vietnam National Archives (hereafter VNA) is no longer valid. Although it was accurate at the time I consulted this archival collection, it has since been moved to Hué.

[24] On the concept of therapeutic transition, see Harry Marks, *The Progress of Experiment: Science and Therapeutic Reform in the United States, 1900–1990* (Cambridge: Cambridge University Press, 1997), and John Harley Warner, *The Therapeutic Perspective: Medical*

played a key role, from the turn of the twentieth century, in the transformation and globalization of industrial and commercial practices, and in the emergence of health consumerism.[25] A spate of recent work on postwar pharmaceuticals renders obsolete Charles Rosenberg's 1992 observation that historians were ignoring medicines because they saw them as "strange objects."[26] Despite this, medicines rarely occupy a central position in current reflections on the coproduction of imperialism and health.

Guillaume Lachenal's book on Lomidine, a contested wonder drug used in sleeping sickness prophylaxis in 1950s sub-Saharan Africa, is a notable exception.[27] At most, medicines appear in the margins of studies of imperialism, as a modern technology among others (as is the case for quinine), as part of an array of modern consumer goods that may even be seen as "emancipatory," or as evidence of dynamic practices of medical pluralism and of the reinvention of traditional medicines.[28] Therapeutic substances are sometimes evoked to highlight colonial oppression, subjugating the colonized through addiction

Practice, Knowledge and Identity in America, 1820–1885 (Cambridge: Cambridge University Press, 1986). On the idea of a post–World War II therapeutic revolution and its narratives, see Jeremy A. Greene, Flurin Condrau, and Elizabeth Siegel Watkins, ed. *Therapeutic Revolution. Pharmaceutical and Social Change in the Twentieth Century* (Chicago: Chicago University Press, 2016).

[25] Nancy Tomes, "Merchants of Health: Medicine and Consumer Culture in the United States, 1900–1940," *The Journal of American History* 88, 2 (2001): 531–38.

[26] Charles Rosenberg, *Explaining Epidemics and Other Studies in the History of Medicine* (Cambridge: Cambridge University Press, 1992), 10.

[27] Guillaume Lachenal, *Le médicament qui devait sauver l'Afrique. Un scandale pharmaceutique aux colonies* (Paris: La Découverte, 2014), translated as *The Lomidine Files. The Untold Story of a Medical Disaster in Colonial Africa* (Baltimore: Johns Hopkins University Press, 2017). See also Nandini Bhattacharya, "Between the Bazaar and the Bench: Making of the Drugs Trade in Colonial India, ca. 1900–1930," *Medical History* 90, 1 (2016): 61–91; Myriam Mertens, "Chemical Compounds in the Congo: Pharmaceuticals and the 'Crossed History' of Public Health in Belgian Africa" (PhD diss., University of Ghent, 2014), and Noémi Tousignant, "Trypanosomes, Toxicity and Resistance: The Politics of Mass Therapy in French Colonial Africa," *Social History of Medicine* 25, 3 (2012): 625–43.

[28] On consumerism and drugs, see Sarah Hodges, *Contraception, Colonialism, and Commerce. Birth Control in South India, 1920–1940* (Aldershot: Ashgate, 2008); and Timothy Burke, Lifebuoy Men, Lux Women. *Commodification, Consumption, and Cleanliness in Modern Zimbabwe* (London: Leicester University Press, 1996). On therapeutic pluralism and traditional medicines, see Karen E. Flint, *Healing Traditions: African Medicine, Cultural Exchange, and Competition in South Africa, 1820–1948* (Athens: Ohio University Press, 2008); Kavita Sivaramakrishnan, *Old Potions, New Bottles. Recasting Indigenous Medicine in Colonial Punjab (1850–1945)* (Hyderabad: Orient Longman, 2006); Anne Digby, "Self-Medication and the Trade in Medicine within a Multi-Ethnic Context: A Case Study of South Africa from the Mid-Nineteenth to Mid-Twentieth Centuries," *Social History of Medicine* 1, 3 (2005): 439–57; Waltraud Ernst, ed., *Plural Medicine, Tradition and Modernity, 1800–2000* (London and New York: Routledge, 2002).

or compulsory ingestion.[29] Other studies take up therapeutic substances to focus on extractive endeavors, as in early instances of bioprospection and experimentation, conducted with impunity far from the metropolitan gaze.[30] Interest in the coercive dimensions of colonial public health has perhaps led to an overrepresentation of vaccines in the study of colonial medicines. However, while biotherapies should indeed be defined as pharmaceutical products, they are set apart not only by their mode of action, but also by their use as tools of collective prevention, whose administration was tightly controlled by the colonial state.[31]

Given these historiographical gaps, I turned to studies of pharmaceuticals from other disciplines in order to formulate the right questions and to identify productive analytical pathways. Indeed, medical anthropologists have, since the 1980s, paid much more attention to medicines than historians have.[32] Their work has, in particular, developed an approach to medicines focusing on their *biography* or *life cycle,* which is articulated around three, sometimes four stages: production (which includes drug innovation, research, and development); circulation (in which one might concentrate, for example, on the role of retail pharmacies or the uses of prescriptions in orienting distribution); consumption; and, in some cases, a drug's "afterlife," its post-ingestion

[29] Ved Baruah, "Addicts, Peddlers and Reformers: A Social History of Opium in Assam, 1826–1947" (PhD diss., Cardiff University, 2017); James H. Mills and Patricia Barton, ed., *Drugs and Empires. Essays in Modern Imperialism and Intoxication, c. 1500–c. 1930* (Basingstoke: Palgrave McMillan, 2000); William Jankowiak and Daniel Bradburd, ed., *Drugs, Labor, and Colonial Expansion* (Tucson: University of Arizona Press, 2003).

[30] Laurence Monnais and Noémi Tousignant, "The Values of Versatility: Pharmacists, Plants, and Place in the French (post)Colonial World," *Comparative Studies in Society & History* 58, 2 (2016): 432–62; Abena Osseo-Asare, *Bitter Roots: The Search for Healing Plants in Africa* (Chicago: University of Chicago Press, 2014); Deborah Neill, "Paul Ehrlich's Colonial Connections: Scientific Networks and Sleeping Sickness Drug Therapy Research, 1900–1914," *Social History of Medicine*, 22, 1 (2009): 61–77; Wolfgang Eckart, "The Colony as Laboratory: German Sleeping Sickness Campaigns in German East Africa and in Togo, 1900–1914," *History & Philosophy of Life Sciences* 24 (2002): 69–89.

[31] For these reasons, I chose to exclude vaccines from my study. This exclusion is further justified by the fact that the production of vaccines and serums was then the prerogative, in Indochina as in France, of the Institut Pasteur, and that contractual agreements between Pasteur and the colonial government made it possible to distribute all vaccines for free in Vietnam via specific channels.

[32] See especially Sjaak Van der Geest, Susan Whyte, and Anita Hardon, "The Anthropology of Pharmaceuticals: A Biographical Approach," *American Review of Anthropology* 25 (1996): 153–78; Sjaak Van der Geest and Susan Whyte, *The Context of Medicines in Developing Countries. Studies in Pharmaceutical Anthropology* (Dordrecht and Boston: Kluwer Academic Publishers, 1988); Charles E. Cunningham, "Thai 'Injection Doctors': Antibiotic Mediators," *Social Science & Medicine* 4 (1970): 1–24.

manifestations.[33] By attending to the meanings invested in medicines across space and over time, this approach is particularly valuable for identifying the multiple determinants of the accessibility of health care. Indeed, it illuminates its many dimensions, which are not only economic and geographical (i.e., how much care costs and where it can be obtained), but as also shaped by other practical and conceptual, even cultural, issues, ranging from forms of interaction with health care professionals to the representations of drug effects. Furthermore, following medicines through these different stages – which also represent sets of relationships and interactions, in which value and meaning are negotiated and transformed – helps highlight the roles played as much by "dominant" pharmaceutical actors (the industry, pharmacists, doctors) as by consumers. It helped, and pushed, me to foreground those who ingest, or who refuse, medicines as playing an active part in their own health care – in other words, to privilege a "bottom-up" construction of the history of health.

Anthropologists of medicines do not begin with a priori judgments of drug consumption as problematic, risky, or irrational. The meanings of observed therapeutic practices become clear only after their specific factors – logics, values, practical obstacles, and advantages – have been identified. This perspective is shared by some sociologists who are committed to studying medicines as *social objects*,[34] and to thereby grasp the full complexity of processes of medicalization. Here, I deploy this capacity to illuminate the flip side of official narratives and practices of colonial medicalization, and therefore to better scrutinize and capture this process as a whole, with its multiple, sometimes conflicting, more and less visible dimensions; its imposed, accepted, refused, and sought-after elements. Pharmaceuticals have highly malleable social meanings, more so than doctors, for example.[35] Furthermore, medicines have a life of their own, a potential for material and therapeutic autonomy. Indeed, despite the proliferation of institutional and legal measures to impose biomedical gatekeepers, namely the doctor and the pharmacist, on access to medicines since the nineteenth century, medicines embody expertise in a way that often makes it possible to bypass the experts.[36] As modern, volatile,

[33] Nina Etkin, "'Side Effects': Cultural Constructions and Reinterpretations of Western Pharmaceuticals," *Medical Anthropology Quarterly* 6 (1994): 99–113.

[34] Johanne Collin, Marcelo Otero, and Laurence Monnais, ed., *Le médicament au cœur de la socialité contemporaine. Regards croisés sur un objet complexe* (Sainte Foy: Presses de l'Université du Québec, 2006), 1–15.

[35] Sokhieng Au, *Mixed Medicines. Health and Culture in French Colonial Cambodia* (Chicago: Chicago University Press, 2011), 80.

[36] Sjaak Van der Geest and Susan Whyte, "The Charm of Medicines: Metaphors and Metonyms," *Medical Anthropology Quarterly* 3, 4 (1989): 357–60.

autonomous medical technologies, and as commodities in the making, medicines are also historical objects that can shed light on the social dynamics at work in (colonial) ways of relating to health and to well-being.

Historicizing the "Inappropriate" Consumption of Medicines

Pharmaceuticals are in urgent need of historicization, going beyond the specific context of Vietnam under French rule. We are now in an era, some say, of out-of-control *pharmaceuticalization.*[37] The "pharmaceuticalization of daily life" is epitomized by a rampant, global consumption of drugs such as Lipitor, Plavix, Prozac, and Viagra, paralleled by a race to unleash nature's pharmacological potential and the growing scale of mass production of "neo-traditional" medicines.[38] Pharmaceuticals are at the heart of the quest for health; indeed, medicines have shaped how we define health and disease since at least the late nineteenth century. While relying heavily on pharmaceuticals, health care and public health professionals, policy makers, and managers continue to raise concerns about the role they play in care. These concerns include ever-more complex and potentially risky patterns of consumption, as well as exorbitant costs to national economies. According to the global information and technology services company IMS Health, the global use of medicines will reach 4.5 trillion doses by 2020, costing US$1.4 trillion.[39] Frantic pharmaceutical consumption appears to be rooted in another major problem: the "misuse" (i.e., inappropriate or irrational use, with reference to biomedical standards) of medicines, which is blamed, for example, as the cause of widespread antibiotic resistance. While some drugs are defined as essential[40] or as miraculous, there is still a persisting tendency to judge

[37] The term "pharmaceuticalization," in its most neutral historical definition, points to the role played by pharmaceuticals (produced, distributed, consumed), and their many actors, in modern processes of medicalization. However, its use in the fields of anthropology, sociology, or public health often implies a harmful process of "pharmaceutical invasion": Adriana Petryna, Andrew Lakoff, and Arthur Kleinman, ed., *Global Pharmaceuticals. Ethics, Markets, Practices* (Durham and London: Duke University Press, 2006).

[38] Nick J. Fox and Kathie J. Ward, "Pharma in the Bedroom . . . and the Kitchen . . . The Pharmaceuticalisation of Daily Life," *Sociology of Health & Illness* 30, 6 (2008): 856–68.

[39] imshealth.com/en/thought-leadership/ims-institute/reports/global-medicines-use-in-2020.

[40] Jeremy A. Greene, "Making Medicines Essential: The Emergent Centrality of Pharmaceuticals in Global Health," *BioSocieties* 6 (2011): 10–33.

the generalized attraction to pills of all sorts as blind and lazy: as sidestepping healthy lifestyles and the collective prevention of "real" health problems.

The issues arising from the consumption of medicines in the Global South appear to be different from those plaguing high-income countries and, it seems, more "problematic." Often mentioned is the ease and frequency with which prescription-only drugs are obtained without due consultation of a qualified health care professional. This tendency is then linked to high levels of nonadherence to officially recommended uses (dosage, therapeutic indications, course of treatment, etc.) and a profuse circulation of counterfeit products: the World Health Organization (WHO) estimates that 25 percent of the drug market in the Global South is composed of counterfeit medicines, compared to 7 to 15 percent in other countries – although internet purchasing may be narrowing this gap.[41] Pluralistic medical practices are viewed as especially likely to result in harmful drug interactions or, at the very least, to make patients less adherent to biomedical therapeutic principles. The "rediscovery" of so-called traditional medicines and their inclusion within integrative health care systems obtained the WHO's stamp of approval in 1978; its Declaration of Alma-Ata affirms the benefits of promoting medical traditions that are rooted in the values and practices of local communities.[42] Yet this has positioned traditional medicine as an *alternative* to biomedicine, to be fostered in order to meet the goal of providing primary health care "for all" in the face of the obvious impossibility (both material and human) of universal and equitable access to biomedical care.

While it is easy to blame irrational individuals, negligent states, and dysfunctional health care systems for problems of pharmaceutical consumption and accessibility, there is, of course, another important player. In the 1970s and 1980s, a greedy, devious, and far-reaching pharmaceutical industry was accused of launching a global "pharmaceutical invasion." Through aggressive marketing and product distribution, the industry was said to expose vulnerable populations to risky forms and norms of pharmaceutical consumption.[43] The economist Michael Kremer suggests that the distinctive traits of drug consumption in the

[41] gphf.org/images/downloads/library/who_factsheet275.pdf.

[42] WHO, Declaration of Alma-Ata International Conference on Primary Health Care, Alma-Ata Kazakhstan, USSR, September 6–12, 1978 (http://who.int/publications/almaata_declaration_en.pdf).

[43] On the pharmaceutical invasion of the Global South, see Milton Silverman, Mia Lydecker, and Philip Randolph Lee, *Bad Medicine: The Prescription Drug Industry in the Third World* (Stanford: Stanford University Press, 1992); Diana Melrose, *Bitter Pills: Medicines and the Third World Poor* (Oxford: Oxfam, 1982).

Global South can also be linked to the fact that pharmaceutical products are, compared with the Global North, responsible for a higher share of twentieth-century population-level health gains relative to other medical interventions and technologies.[44] This assertion merits consideration. Indeed, it is worth investigating the process of pharmaceuticalization from the vantage point of multiple genealogies. Although we might catch a whiff of colonial discourses in some interpretations of the current situation, it is surely not enough to denounce as neo-imperialist the pressures and accusations weighing on the consumption of pharmaceuticals in Asia or Africa. We have to go back further, before the years of the pharmaceutical invasion, before Alma-Ata, even before antibiotics, to really understand the meanings and determinants of self-medication and therapeutic pluralism, and to document the history of access to health care as well as the genesis (or absence) of pharmaceutical policies.

Vietnam is particularly suited to, and in need of, such a project of excavation. The consumption of medicines became a source of particular anxiety in the wake of the Đổi mới (renovation era), a set of economic reforms initiated in 1986 toward a "socialist market economy," which led to the privatization of the national health care system from 1989. This entailed a deregulation of the sale of medicines and medical services, and the introduction of restrictions on access to free health care, which, until then, had been universal. By the turn of the twenty-first century, thirty-five thousand pharmacies sold about ten thousand medicines, of which four thousand were manufactured abroad (these were usually more expensive but also more sought-after) – a situation that, some pointed out, was ripe for an explosive proliferation of risky practices such as self-medication.[45] Almost twenty years ago already, the World Bank estimated that two-thirds of all acts of health care seeking consisted of direct purchases of medicines, whether from qualified pharmacists or other types of traders, and that 93 percent of these transactions did not involve

[44] Michael Kremer, "Pharmaceuticals and the Developing World," *The Journal of Economic Perspectives* 16, 4 (2002): 72.

[45] See especially Okumura Junko, Wakai Susumu, and Umenai Takusei, "Drug Utilisation and Self-Medication in Rural Communities," *Social Science & Medicine* 54, 12 (2002): 1876–86; Nguyen Thi Kim Chuc and Goran Tomson, "Doi Moi and Private Pharmacies: A Case Study on Dispensing and Financial Issues in Hanoi, Vietnam," *European Journal of Clinical Pharmacology* 55 (1999): 325–32; Duong Dat Van, C. W. Binns, and Truyen Van Le, "Availability of Antibiotics as Over-the-counter Drugs in Pharmacies: A Threat to Public Health in Vietnam," *Tropical Medicine and International Health* 2, 12 (1997): 1133–39; Ivan Wolffers, "The Role of Pharmaceuticals in the Privatization Process in Vietnam's Health Care System," *Social Science & Medicine* 41, 9 (1995): 1325–32.

a medical prescription.[46] The Vietnamese market for counterfeits offered, according to the WHO, a wide variety of products, including different types of antibiotics, analgesics, antimalarial, psychotropic, and combination drugs, as well as (neo)traditional products.[47]

The country is indeed pervaded by a strong medical culture of its own, which has a long and complex history. The use of the term *thuốc ta* (our medicine) is still used with reference to a distinctively national medicine, whose roots are closely intertwined with the anti-colonial emancipation movement of the 1930s and 1940s. Yet this appellation underplays the long-standing, still strong, if sometimes tense, association between *thuốc bắc*, Chinese medicine from the North, and *thuốc nam*, a southern medicine based on a therapeutic arsenal that draws on Vietnam's extraordinary local biodiversity.[48] Interchanges between "north" and "south" have long been fostered by a busy, extensive, and durable network of channels for the circulation of medicinal plants and substances, which crisscrosses the Vietnamese territory and connects it to its neighbors. The prominent social, economic, and therapeutic role played by those who provide remedies (including but not limited to the biomedically qualified pharmacist) also obviously predates the privatization of the Vietnamese health care system. In addition, it should not be surprising to find a tendency toward self-medication in a country whose predominant East Asian Confucian culture emphasizes the value of managing one's own health, a link that can indeed be discerned through a close reading of health magazines, for example.[49] The markers of these patterns of practice – like those of the pharmaceuticalization of the Global South – have yet to be historicized.

A site of total colonization, Vietnam was, from relatively early on, connected to a global economy that included transnational trade in pharmaceuticals. The pharmaceutical industry was taking off in Europe and North America at the same time as the Southeast Asian territory was

[46] World Bank, *Vietnam Living Standards Surveys (1997–1998)* (Washington, DC: World Bank, 2001).

[47] WHO, *Counterfeit and Substandard Drugs in Myanmar and Vietnam* (Geneva: WHO, 1999), http://apps.who.int/medicinedocs/pdf/s2276e/s2276e.pdf. Combination drugs are products that contain several medicines or pharmacologically active substances that are usually taken separately. Common examples are APC (aspirin, phenacetin, caffeine) and PPA (phenobarbital, phenacetin, aspirin).

[48] On the identity of Vietnamese medicine, see Laurence Monnais, C. Michele Thompson, and Ayo Wahlberg, ed., *Southern Medicine for Southern People. Vietnamese Medicine in the Making* (Newcastle upon Tyne: Cambridge Scholars Publishing, 2012). *Thuốc* means remedy, medicine, and tobacco.

[49] Judith Farquhar, "For Your Reading Pleasure: Self-Health (Ziwo Baojian) Information in 1990s Beijing," *Positions. East Asia Culture Critique* 9, 1 (2001): 105–30; David Finer, *Pressing Priorities: Consumer Drug Information in the Vietnamese Marketplace* (Stockholm: Karolinska Institutet, Department of Public Health Sciences / Global Health [IHCAR], 1999).

being placed under colonial rule. This synchronicity had a significant impact. French firms sought out overseas market opportunities as soon as they began to expand, if only to secure their position in an industry that was quickly becoming increasingly competitive.[50] These circumstances are difficult to reconcile with colonial doctors' silence on the subject of medicines. Yet they might make a good starting point in responding to historian David G. Marr's 1987 call to unravel the mystery of the popularity of Western drugs in Vietnam.[51] Pointing out that "Western medicines" were absent, or nearly absent, from pharmacy shelves for nearly four decades, from World War II to the Đổi mới, Marr suggests that we need to look back to the time of colonial rule in order to solve this puzzle. I would add weight to this intuition by pointing out that the Democratic Republic of Vietnam (North Vietnam, 1945–76) implemented an integrative health care system as early as 1954, just after the Geneva Agreements provisionally split the country in two. This was a symbolic and highly political decision, but one that was nevertheless necessarily rooted in a preexisting familiarity with biomedicine, its institutions, agents, and, presumably, its medicines.

Tools for Biographical Writing: About Alternative (Colonial) Sources

Once I set out to explore these questions, I had to tackle the problem of locating sources for writing such a colonial genealogy of pharmaceuticals. Unlike anthropologists, historians are often forced to privilege a macroscopic approach when their documentary sources are not sufficiently fine-grained. With its endpoint in 1940, my study could not rely on oral history interviews or ethnographic observation of historical actors. It was particularly challenged by the lack of voice, in the usual sources, given to producers, distributors, and especially to consumers of medicines, most of whom were twice subaltern: as both lay and colonized subjects. It was thus a matter of both finding new sources and reading old ones in new ways. I used multiple search strategies to uncover potential sources, including some that spoke of medicines only marginally or indirectly; forced a juxtaposition of data on official medical positions and practices with information on actors and practices that were beyond the AMI's purview (whether by definition, indifference, or intentional

[50] Sophie Chauveau, *L'invention pharmaceutique. La pharmacie française entre l'état et la société au XXe siècle* (Paris: Sanofi Synthélabo, 1999), 77.

[51] David G. Marr, "Vietnamese Attitudes Regarding Illness and Healing," in *Death and Disease in Southeast Asia. Explorations in Social, Medical, and Demographic History*, ed. Norman G. Owen (Singapore: Oxford University Press, 1987), 182–83.

escape); sought to bring private, informal, and even illegal realities to light; and drew together, within the same frame of reality, the silences in sources with their expressions of judgment, value, ignorance, anxiety, and blame. Throughout, I constantly marked out turning points in drugs' trajectories and remained attentive to the distinct regimes of value through which they passed and were redefined.

While the importation (or exportation, if one is standing on the opposite shore) of pharmaceuticals is not a major dimension of my analysis, I still felt it was necessary to trace the outlines of how medicines made their way to Vietnam from the Euro-American, particularly the French, pharmaceutical industry during the colonial period. I once again found an indifference to medicines in the archival series pertaining to the customs services and chambers of commerce. However, a few serial publications on the commerce and economy of Indochina, as well as the *Annuaire statistique de l'Indochine* (Directory of Statistics of Indochina), allowed me to roughly sketch out the flux of products between metropole and colony, but also, interestingly, between Indochina and some of its neighboring countries.[52] Because the Instituts Pasteur were so influential in Indochina, the Pasteur archives housed in Paris, and especially the files of the institution's Laboratoire de chimie thérapeutique (Laboratory of medicinal chemistry), which became involved in the production and experimentation of new pharmaceutical compounds as early as 1911, were highly informative. This compensated, at least in part, for the unavailability of pharmaceutical industry archives documenting their products and activities in Vietnam during this period.

Acts of legislation that regulated the circulation of medicines into and within the colony were published in the serial *Journal officiel de l'Indochine* (Official Journal of Indochina). These reveal an extremely dense and complex legislative framework that seems typical of the well-known French emphasis on centralization and on the regulation, and protectionism of commercial and professional activity. It also, at least on the surface, contradicts the lack of attention to medicines in the texts of AMI protagonists. Obviously, I also consulted the reports of any administrative agency or institution likely to intervene in the circulation of medicines. These of course included the records of the health services, whose top level, initially a Direction de la santé publique (Directorate of Public Health) that became the IGHSP in 1914, centralized (monthly) and synthesized (annually) reports from the districts and facilities under its

[52] I also surveyed the metropolitan journal *Chimie & industrie* (Chemistry and Industry) as well as the *Bulletin économique de l'Indochine* (Economic Bulletin of Indochina), *La quinzaine coloniale* (Colonial Fortnightly), and *La revue coloniale* (The Colonial Review).

authority. I identified and retrieved relevant documentation from the Agence des douanes et régies (Customs and State Monopolies Agency), the Service économique du Gouvernement général (Central Government's Economic Service), the Service judiciaire (Judicial Service), and the Sûreté générale, a security and police service created in 1919. I also managed to obtain reports of the Inspection des pharmacies (Pharmacy Inspection Service), a control service created in 1908. These contain a wealth of information on the practices, both legal and illegal, of various types of medicines-traders, as well as evaluations of the "proper" management of "Western-style" pharmacies. These reports also shed light on the highly versatile Vietnamese market for medicines, compensating, to some extent, for the unavailability of prescription ledgers or other sources of information on the day-to-day operation of pharmacies.

Indochinese and colonial medical journals, despite their previously mentioned relative indifference to medicines, did provide some indications as to which medicines were used in AMI hospitals, with what therapeutic methods and results. A much richer source, however, was the Vietnamese popular press. Colonial Vietnam was home to hundreds of periodicals in French, especially in *quốc ngữ*.[53] By 1939, the official count was of 128 dailies and 176 magazines, bulletins, and serials. Unrivalled in the colonial world, this prolific production has, paradoxically, been relatively neglected as a historical source other than for the analysis of its political role.[54] During the interwar years, the pages of these publications were quickly filled up with publicity for an array of medicines. The Vietnamese press often addressed health topics, in ways that echoed, but could also criticize and deviate from, dominant colonial and medical rhetoric. A close reading of a selection of health magazines such as the previously mentioned BAYB gave me a glimpse of dimensions of local therapeutic consumption that are not addressed in other sources. For example, I was able to find out how readers and their kin learned about some of the pharmaceutical products they had discovered in AMI hospitals or through publicity (see Chapter 5).

Together, these sources provide a range of types of information on the medicines that circulated in Vietnam prior to 1940, or at least, on the

[53] Quốc ngữ is a romanized writing system for the Vietnamese language that was imposed by the colonial administration for administrative correspondence in the late nineteenth century and in schools in the early twentieth century; later it became the official national written language.

[54] Philippe M. F. Peycam, *The Birth of Vietnamese Political Journalism: Saigon, 1916–1930* (New York: Columbia University Press, 2012); Shawn F. McHale, *Print and Power. Confucianism, Communism, and Buddhism in the Making of Modern Vietnam* (Honolulu: University of Hawai'i Press, 2004); David G. Marr, *Vietnamese Traditions on Trial, 1925–1945* (Berkeley: University of California Press, 1981).

products considered worth mentioning, for various reasons, by their authors and protagonists. From this information, I compiled a database of 1,121 drugs and traced their colonial lives. I created separate entries for the different brand names of the same active substance. However, I excluded traditional remedies – or remedies identified as such, as opposed to "modern" medicines – and medicinal species. While it would be impossible to ensure or ascertain that the database is complete, and while it provides incomplete biographical information on some of the medicines it lists, it nevertheless contains a wealth of qualitative information. Usefully, the database distinguishes more popular products – which were well known and/or highly sought after, which had long, successful careers, or which drew particular attention – from those with a short-lived or erratic presence in Vietnam.[55]

Overview of the Book

There are several dimensions of the colonial history of pharmaceuticals that are *not* the primary focus of this book. It is not my intention to revisit Euro-American drug production "from the periphery," or to assess the impact of colonial medicalization projects on a therapeutic transition in the metropole. These are worthwhile objectives, but they are beyond the scope of this project. Also, I do not provide a comprehensive overview of (though I do touch upon) colonial drug research, including bioprospection, and therapeutic trials, in Vietnam. Nor do I reconstruct the underlying logics of colonial practitioners' therapeutic practices and experiments. In other words, this is not primarily a history of medicines as objects of colonial science, but rather, as I hope is clear by now, a history of medicines as tools and objects of social change. My main objective is to examine how, and to what extent, modern medicines and the "colonial situation," to use the French sociologist George Balandier's expression,[56] were mutually transformed. How were medicines shaped and incorporated into changing local health practices in the context of colonial rule, and, conversely, how were they redefined by colonial encounters and experiences?

To fully grasp pharmaceutical consumption patterns and especially their determinants in Vietnam, it is, however, essential to first retrace the steps by which they were produced, defined, and brought to potential Vietnamese consumers. I begin, in Chapter 1, by explaining

[55] I also compiled a database of pharmacists and doctors, allowing for an estimation of their number and to reconstruct some of their professional trajectories.

[56] Georges Balandier, "La situation coloniale. Approche théorique," *Cahiers internationaux de sociologie* 12 (1951): 44–79.

what I mean by *modern*, and *colonial*, medicines. In Chapter 2, I sketch out the outlines of the history of pharmaceutical importation to Indochina, and of the main (and knowable) qualitative and quantitative features of the "medicines market" in Vietnam from the last third of the nineteenth century to the Japanese occupation of French Indochina. Chapter 3 describes the circulation and distribution of *public medicines*, thus illuminating their role in colonial health policy and within the framework of the AMI. These first chapters show how large the gap was between discourses reflecting the intentions of colonial medicalization and the realities of health care implementation. While this gap is most evident in the inadequate distribution and accessibility of both medical services and medicines, it was also exacerbated by the slow, rather reluctant acceptance, by colonial authorities and doctors, of medicines as suitable tools of medicalization.

Chapters 4 and 5 focus on some of the key actors involved in the distribution of pharmaceuticals beyond the public health care system. Beginning, in Chapter 4, in the world of Western-style pharmacists and pharmacies, I then move on to the panoply of actors – professional and lay, colonial and colonized, foreign and local, from health specialists to purely commercial actors – who traded in colonial medicines. This chapter highlights the extraordinary fluidity, productivity, and adaptability of pharmaceutical distribution networks. Such flexibility is perhaps most salient in practices that played on, and sometimes transgressed, the limits of legality, which were delineated by a highly detailed and restrictive, but not always enforced (or enforceable), legislative corpus. Focusing on these illicit practices, Chapter 5 shows how innovative pharmaceutical actors could be, creating new possibilities for individual and collective health care.

Chapters 6 through 8 focus on the consumption of medicines, which depended on these diverse, permeable distribution circuits and a versatile, expanding market. My aim here is to gauge the popularity of modern medicines, especially in the interwar period, and indeed to identify the conditions and possible forms under which medicines might have become popular. This brings me, in Chapter 6, to examine the role of pharmaceuticals within broader transformations in Vietnamese health, health care, and day-to-day therapeutic choices, especially in urban settings where social change was at its most striking, if still uneven. I especially seek to analyze the mutual influence between an emerging health consumerism, which considered medicines less as a colonial "gift" and more as a modern commodity, and "quests for therapy." I follow up on this analysis in Chapter 7 by considering whether, and how, demands for medicines were associated with the acceptance of certain biomedical

rules (and the refusal of others), and in Chapter 8, by describing the rise of new forms of therapeutic pluralism. These plural practices were fashioned, of course, by the pressures and opportunities of colonization and colonial medicines, but also by shifts in the conceptualization and practice of Vietnamese medicine, as well as by the health care needs of men and women, children and the elderly.[57]

While this book is not a history of encounters between medical cultures and epistemologies, it nevertheless provides a closeup view of the colonial past of medical pluralism. In this, Vietnam, as part of French Indochina, is a fascinating case study that is particularly illuminating in revisiting the past of the globalization (or not) of individual and collective conceptions of health. In particular, it reveals three dimensions of this past: the enterprise of colonial medicalization as it unfolded in a specific colonial situation; the health perspectives and agency of the colonized; and, finally, the potentially transformative impact of medicines on conceptions of health. Though it was certainly violent and normative, modern colonization did not completely crush the liberty of action of the colonized. As producers, distributors, and consumers of medicines, the Vietnamese participated in many significant ways in the process of their own medicalization. There were many medicalizations in Vietnam, and medicines became key mediators in colonial encounters as a site for the expression of a range of expectations, desires, negotiations, and practices. Almost twenty-five years ago already, historian Luise White suggested that medicines (and other medical technologies), because they elicited seemingly conflicting discourses from colonial and colonized actors, could be taken up as a privileged analytical vantage point on the colonial phenomenon and its legacies.[58] *The Colonial Life of Pharmaceuticals* is a response to her call.

[57] It is, however, important to note that the colonized perspectives and practices revealed by these multiple sources are primarily those of men who were educated and lived in the city.

[58] Luise White, "They Could Make Their Victims Dull: Genders and Genres, Fantasies and Cures in Colonial Southern Uganda," *The American Historical Review* 100, 5 (1995): 1379–402.