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Chapter 4. From depharmaceuticalization to drug abundance: a social history of pharmaceutical regulations in Cambodia

Eve Bureau-Point

While the pharmaceuticalization of Cambodian society was taking hold in Indochina, Cambodia underwent a reverse process of “depharmaceuticalization,” sparked by a succession of wars and authoritarian regimes and exacerbated by the Khmer Rouge revolution (1975–1979). The entire pharmaceutical system was rebuilt. This chapter looks at the current system through the lens of many sources of regulation. It offers an innovative theoretical framework to understand the diversity of social practices involved in regulating the circulation of medicines, whether such practices are driven by the State, healthcare professionals, distributors, or consumers. Through an historical perspective, the chapter presents how the contemporary Cambodian pharmaceutical system is structured as well as the rules, practices, and adjustments—both formal and informal—that have been harnessed over time, in response to the exponential rise in the drug circulation in this context.

Introduction

The first pharmaceutical medicines were introduced into Cambodia during the French protectorate (1863–1953). Representatives of colonial health services practiced the academic medicine developing in the West, delivered within a syncretic and pluralist medical system derived from Theravada Buddhism, Ayurveda, Chinese medicine, and animist theories (Chhem, 2001). The use of medicines imported from France and the practice of Western medicine were gradually incorporated into the existing medical offices. While pharmaceuticalization¹ of Cambodian society was taking hold in Indochina, Cambodia underwent a reverse process of “depharmaceuticalization,”² sparked by a succession of destructive wars and authoritarian regimes, exacerbated by the Khmer Rouge revolution (1975–1979). The entire pharmaceutical system was rebuilt. Most pharmacists were executed, and official production and distribution sites were destroyed. In this chapter, I will build on existing knowledge of the history of pharmaceuticalization/depharmaceuticalization in Cambodian society, using an approach that combines historic anthropology, the anthropology of objects and techniques, and medical anthropology. My analysis will specifically examine the “multiple regulations” that shape the structure of the pharmaceutical market in this specific context. Throughout the previous chapters, the concept of “multiple regulations,” introduced by Mathieu Quet and his colleagues (2018), goes beyond national and international regulations enshrined in legal documents and implemented by States and institutions and considers more alternative and informal regulatory models. As they explained, “the trajectories of pharmaceuticals are defined by alternative logistic regimes that must be explained and understood. The existence of such regimes depends upon multiple reasons: cultural representations, conflicts of need and availability, contradictions between regulation and marketing strategies, commercial initiatives, and so on” (p. 5). Looking at this issue through the lens of many sources of regulation offers an innovative theoretical framework to understand the diversity of social practices involved in regulating the circulation of medicines, whether such practices are driven by the State, healthcare professionals, distributors, or consumers. Social scientists researching health issues in the country have already highlighted historic and social aspects affecting the circulation of medicines in Cambodia (Bonnemain, 2008; Bourdier, Man, & Res, 2014; Crochet, 2001;

¹ This concept refers to the rising volume of pharmaceutical drugs in circulation and their increasingly predominant place in society (Desclaux & Egrot, 2015).

² I would like to thank Maurice Cassier who led the Globalmed team to this conceptualization of the situation in Cambodia during discussions at an internal project meeting in September 2016, held in Paris.

Guillou, 2009; Ovesen & Trankell, 2007; Pordié, 2016). This chapter employs a historical perspective to expand on this research by presenting how the Cambodian pharmaceutical system is structured as well as the rules, practices, and adjustments—both formal and informal—that have been harnessed over time, in response to the exponential rise in the drug circulation in this context.³

From the French protectorate to the 1990s: a historical overview of the pharmaceuticalization/depharmaceuticalization of Cambodian society

The primary mission of French colonial medicine was to provide medical care for soldiers and colonists. Colonized people's health was secondary, and translated into prevention and vaccination programs to control the development of infectious diseases. The first pharmaceutical medicines were introduced in this context. Beginning in 1923, health officials in the pharmacy sector were trained at the Hanoi Faculty of Medicine (a four-year program), and pharmaceuticals were only supplied by French pharmacists (Neou, 1999). There were four pharmacies, run by French pharmacists, all located in Phnom Penh. Health officers ran depots in the provinces. In her book on colonial medicine in Cambodia, Sokhieng Au points out that very few people sought biomedical consultations, but, in contrast, European pharmacopeia was a huge success (2011, p. 79). Laurence Monnais has documented the same finding for the Vietnamese situation (2014). Cambodia was noted for robust pharmaceutical manufacturing, producing over 400 specialties between 1940 and 1945 (Bonnemain, 2008).

After independence, under the reign of King Sihanouk (1955–1970), the first pharmacies directed by French-trained Cambodian pharmacists opened, along with the first local drug manufacturing companies. According to Seng Lim Neou, these pharmacists also held positions in the public sector (1999), a practice that endures today. Medicines continued to primarily come from France. Pharmacies were large companies that simultaneously managed imports and wholesale and retail sales. Health officers in pharmacy started to be trained at the Royal College of Medicine of Cambodia in the 1950s; after a five-year program, the first graduates became pharmacists in 1962. Since these officers worked in cities, retired nurses were authorized to open pharmacy-depots in the provinces. Medicine distribution was carried out according to French law, which recognized the pharmacists' monopoly.⁴ According to Seng Lim Neou, at this time in Cambodia, people bought medicines after consulting a physician who wrote a prescription (1999).

Starting in the 1970s, the political situation began deteriorating; the Lon Nol coup d'état and the collateral effects of the Vietnam War weakened the country. During the Khmer Republic of Lon Nol (1970–1975), described as plagued by corruption (Chandler, 1992), health services were overburdened by the war-wounded and refugees fleeing the fighting. Treatment options were limited despite massive aid from the United States (Guillou, 2009), and drug prices rose (Ovesen & Trankell, 2007). The country gradually fell under the Khmer Rouge (1975–1979), a radical Maoist communist regime based on an ideology promoting the purification of the Khmer people and an agrarian utopia aimed at self-sufficiency that resulted in the massacre of approximately one quarter of the population. The intellectual professions, especially pharmacists and physicians, considered to be impure and contaminated by imperialism, were targeted first. Consequently, no more than 26 of the 150 trained pharmacists remained at the end of the Khmer Rouge regime (Neou, 1999). The health system, along with its workforce,

³ See the Introduction of this book for information about the data collection methodology for this study in Cambodia.

⁴ The pharmacist must supervise any drug transaction (importation or distribution) to ensure public health interests take precedence over economic interests.

was destroyed in order to create a new one. Biomedical scientists, such as Thiounn Thioeun, who was the Minister of Health under the Khmer Rouge, had joined the revolution before 1975. They trained their own medical staff (“*pet padevat*”: *pet*, doctor; *padevat*, revolution). The study done as part of the Globalmed project was conducted in a former bastion of the Khmer Rouge, and the distribution actors who were interviewed there were primarily former Khmer Rouge health professionals who had been trained during the Democratic Kampuchea. Thus, the Khmer Rouge did not reject Western medicine as a whole; their priority was to limit dependence on the outside world and to produce drugs themselves. Its relationship to medicines shows this since Angkar⁵ had appropriated inventory from pharmaceutical companies and pharmacies, and imported a few drugs from Thailand, China, and Hong Kong (Tyner, 2012). It created a drug importation company (the Ren Fung Company) and set up small local manufacturing (vaccines and penicillin) that produced finished products with questionable quality (Tyner, 2012). While the political project involved experimenting with traditional medicine⁶ and establishing domestic production to become autonomous (Vilim, 2010, cited by Tyner 2012), ultimately a two-tier medical system was put in place: one intended for Khmer Rouge cadres and armed combatants who received biomedical care and pharmaceuticals administered by staff trained in China; and another one based on popular and traditional knowledge, that, according to Michael Vickery, applied to 90% of the population (1984). A factory to manufacture traditional medicines was set up in Phnom Penh, where production was supervised by the *kru khmaer*⁷ and Chinese advisors (Tyner, 2012). Cooperatives to produce this same type of medicine were also found in the country’s various districts (Guillou, 2009). These medicines were called *aarj tunsai* by their consumers, Khmer for “rabbit droppings,” because of their resemblance. Therefore, depharmaceuticalization was not absolute. In this context, it meant a drastic reduction in the pharmaceutical drug supply and the near-disappearance of actors working in pharmaceutical drug distribution (pharmacists and health officers) and designated places where they dispensed medicines (pharmacies and depots). Additionally, it reflected the establishment of a new production and distribution system that was less dependent on foreign countries and based on removing pharmaceuticals from their exalted position and replacing them with another episteme of care: traditional medicine.

The history of the Cambodian pharmaceutical system would soon take a turn. Pharmaceuticals were re-introduced massively and quickly, and “pharmaceutical anarchy” (Gollogly, 2002) took hold. After the Vietnamese intervention in 1979 that put an end to the Khmer Rouge regime and marked the debut of the People’s Republic of Kampuchea under Vietnamese domination (1979–1989), everything was rebuilt. On the pharmaceutical front, the top priority was remedying the lack of human resources by implementing a rapid training system: four years of training for “auxiliary pharmacists,” following the model used for the protectorate’s health officers. These pharmacists were required to work in the public sector—in health facilities; supply, manufacturing, and distribution structures; or in the few “State pharmacies” that were opened under the auspices of the Ministry of Health. Three State factories were set up to revive

⁵ A term that means “organization” in Khmer, often used under the Khmer Rouge regime to refer to the Khmer Rouge’s revolutionary organization. Described as a mysterious, faceless authority, *Angkar* was a personified entity with a soul, feelings, and the capacity to act. People had to refer to *Angkar* as a protective and pure mother who must know everything.

⁶ Although there is no shortage of literature on *Kru khmaer* medicine (“*kru khmaer*”: *kru*, master; *khmaer*, Khmer) (Crochet, 2000; Richman, Nawabi, Patty, & Ziment, 2010), there seems to be no specific literature on the composition of traditional medicines manufactured during the Khmer Rouge, except for a few examples cited here and there (Crochet, 2001; Tyner, 2012).

⁷ During the Khmer Rouge, according to Ovesen and Trankell (2010), the *Kru khmaer* were allowed to administer traditional medicines but not to recite mantras or make the offerings that usually accompanied care procedures. Any spiritual or religious component had to disappear.

local production. The Central Medical Store (CMS), created in 1992 (Neou, 1999), was responsible for supplying medicines to central, provincial, and municipal hospitals. These factories immediately faced problems with shortages of electricity, raw materials, and funding. In this generalized post-crisis context, marked by anomie and drug shortages, an informal sector emerged, managed by non-qualified personnel who “in the beginning, spread out their small quantity of medicines, sent by their families or friends abroad, on a scrap of mat or on little tables on the sidewalks or in markets” (Neou, 1999, p. 59). These vendors gradually organized themselves and then purchased medicines in Thailand (interviews with wholesalers, Phnom Penh, 2015). Medicines became consumer goods like any other, circulating outside the control of health professionals. Although access to care and medicines was officially limited to the public sector under this State socialism, the Ministry of Health, seeing the extent of these small businesses, “decided to group these merchants into formal shops and have them store their medicines on shelves” (Neou, 1999, p. 59). Courses covering basic pharmaceutical concepts were organized for them, and those owners who successfully completed the training program could be unofficially recognized by the State and attain the status of “blue pharmacy” (Neou, 1999, p. 59). This type of State-led adjustment serves as a reminder that States are also actors in implementing informal modes of regulation in response to the constraints of the situation.

A United Nations mission (United Nations Transitional Authority in Cambodia, UNTAC) was deployed in 1991 to ensure a return to peace. Although the Khmer Rouge were no longer in power, they were at war with the People’s Republic of Kampuchea army until 1999, when the last Khmer Rouge, who until 1999 were entrenched in bastions, surrendered their weapons and joined the government through a “reconciliation” program. The 1990s would symbolize an intensification of exchanges with the outside world. To rebuild the country, the government opened its doors to international organizations and private companies. The pharmaceutical system was gradually liberalized. The main local production plants were privatized, the number of pharmaceutical companies⁸ and the volume of medicines in circulation saw a steady rise, and the sources of medicines became diversified.

Pharmacists who until then were required to work in the public sector were authorized to open private pharmacies starting in 1989. According to Seng Lim Neou, an information program was developed by the Ministry of Health to explain the differences between legal pharmacies and informal blue pharmacies (1999). The public sector was rebuilt with foreign aid support. Medicine procurement was based on the essential medicines list.⁹ According to the Ministry of Health, problems with stockouts in the public sector continued to arise, and supervision of the public distribution and storage system needed strengthening (2012). Thus, a public and private distribution system, dominated by the private sector,¹⁰ (Neou, 1999) gradually took hold, and the need to establish laws regulating the organization and management of medicines became evident.¹¹

From 1990 to today: constructing a new legal framework for drug circulation

Regulation followed French law until 1975, with two parallel systems, one public and one private (Neou, 1999, p. 109). Due to the years of war, the legal framework for drug circulation had changed very little. In 1994, a national agency for pharmaceutical regulation was created.

⁸ In local use, the term “pharmaceutical company” refers both to local medicine manufacturing firms and medicine import-export and distribution companies. They have a special license from the Ministry of Health to import and export medicines.

⁹ This list was reissued seven times between 1995 and 2016.

¹⁰ In 2013, 80% of health care services were delivered in the private sector (Men, 2013).

¹¹ January 1990 working group reports in Phnom Penh on challenges in the pharmaceutical sector revealed this problem (Neou, 1999).

It was the current Department of Drugs and Food (DDF), attached to the Ministry of Health. That same year, this department began registering medicines. The first pharmaceutical law, still in force today, was introduced in 1996. It sets the general rules for manufacturing and distribution. The pharmacists order would not be created until 2008. It is responsible by law to continuously ensure that the principles of morality, honesty, justice, and loyalty are properly and effectively applied to the pharmacist profession (royal decree, p. 120). Every pharmacy manager is required to register (cf. sub-decree of 2014).

In 1999, four licenses were created to regulate retail distribution. The first was for pharmacists (to open pharmacies); the second for assistant pharmacists (to open Depot-As); the third for retired health professionals (to open Depot-Bs); and the fourth license was for selling traditional medicines. Licenses for Depot-As and -Bs were created to address the lack of pharmacists in the country. The B licenses have not been issued since 2013, but anyone who had obtained one previously is allowed to use it until their retirement. As a result, we still find many Depot-Bs in Cambodia. Legally, the retail distribution system has been based on French law since the protectorate; it grants a monopoly to the pharmacist. However, not until the early 2010s when the government applied pressure did retailers routinely start registering with the Ministry of Health and applying for licenses (interviews with retailers and Ministry of Health representatives, 2015 and 2016). In addition, a nosocomial HIV outbreak caused by contaminated syringes in an informal private practice (Vun et al., 2016), uncovered in Battambang province at the end of 2014, resulted in the promulgation of a new decree to combat activity by non-qualified professionals and the circulation of “fake drugs.”¹² Thus, this resulted in fewer informal retail outlets (Men, 2013); however, as we will see later in this chapter, licensees rarely conduct any oversight for medicines in their formal sales outlets, and informal practices are concealed within formal ones, as described in Ghana in the previous chapter.

Wholesale distribution, on the other hand, does not meet the standards either in France or in other former French colonies, particularly the francophone countries of West Africa—such as Benin and Côte d’Ivoire, discussed in previous chapters—where pharmaceutical legislation aligns closely with that of France. Wholesale distribution seems more liberalized in Cambodia, involving numerous pharmaceutical companies: 308 in 2015, compared to 7 in France and 5 in Benin. They are not legally bound, as in France, to each distribute all of the country’s authorized medicines (interview with pharmacist, Phnom Penh, July 2015). Also, drug prices are regulated by the free market. Wholesale distribution in Cambodia more closely resembles the system in the English-speaking world, such as the United Kingdom, United States, and anglophone countries in West Africa like Ghana, to name a few. Thus, while France’s imprint on the legal framework remains significant, various other influences have also shaped it.

It is also important to consider this legal framework through the regional dynamics in play since Cambodia joined the Association of Southeast Asian Nations (ASEAN) in 1999. The organization has established a free-trade zone between the ASEAN Free Trade Area (AFTA) countries aimed at eliminating customs duties, liberalizing the movement of goods and people, and harmonizing economic policies between member States. ASEAN is also taking initiatives to facilitate the circulation of pharmaceuticals between member States without compromising their quality, safety, or efficacy. To achieve this, ASEAN created the Consultative Committee for Standards and Quality (ACCSQ) in 1992 and a Pharmaceutical Product Working Group (PPWG) in 1999.¹³ The member States meet regularly, with the 25th meeting held in 2018 in Vietnam. Efforts to harmonize pharmaceutical standards between member States are underway;

¹² This concept covers very different phenomena: counterfeit drugs, defective drugs, and informal distribution (Baxerres, 2014; Quet, 2015).

¹³ https://asean.org/?static_post=accsq-pharmaceutical-product-working-group, accessed April 17, 2019.

however, as noted above, pharmaceuticals circulation is poorly regulated in the region, and the effects of ASEAN harmonization policies are often imperceptible. As a result, a considerable proportion of medicines circulate through non-official channels (Quet et al., 2018).

Falsified or sub-standard medicines pose a greater problem in developing countries where regulatory systems and their application are laxer (Quet, 2015). Thus, in Cambodia, the post-conflict context of anarchic drug circulation has fostered the circulation of falsified or sub-standard medicines, raising potential public health problems (Quet, 2015). In 2004, the situation analysis of the pharmaceutical sector in Cambodia identified that about 50% of medicines available on the market are not registered (Ministry of Health, 2004). Many falsified medicines in Cambodia are thought to be smuggled across borders from Thailand and Vietnam (Men 2013). During our study, some interviewees said that these medicines were primarily channeled across bilateral borders that only citizens of the two bordering countries could cross. Authorities exerted less control at these small border posts. Other informal entry points might include the Port of Sihanoukville, where ships come in, or even airports; however, our investigation did not allow us to examine these aspects in detail. Specific regulatory measures have been implemented in the country to address this concern. In 2005, an Inter-Ministerial Committee on Combating Counterfeit and Substandard medicines was created. The committee's mandate is to guide the fight against counterfeit and substandard medicines and illegal health services. According to the government and WHO, "a decline of the prevalence of counterfeit and substandard medicines appeared" (Ministry of Health, 2012, p. 16).

Contemporary State regulatory systems have been built through regional and international collaboration. As we will see in the rest of this chapter, their application depends, however, on other mechanisms, specific to the drug market, health professionals' practices, retail distribution actors, and the logics of consumers.

The current Cambodian pharmaceutical market and its regulations

Although local production is on the rise,¹⁴ actors in the distribution sector regularly call into question the quality of these products. One distributor that we interviewed had this to say about local products: "How do you explain that a blister pack of paracetamol costs 500 riels;¹⁵ something is off here! These products have no ISO, no GMP, no analysis certificates" (Phnom Penh, March 2016). For the Ministry of Health, non-compliance with ASEAN Good Manufacturing Practice (GMP) standards hampers the development of the local market (Ministry of Health, 2012).

In Cambodia, most pharmaceuticals are imported. According to the DDF director, whom we interviewed in 2015, 70% of medicines arrive by boat, and when needed, by plane for emergencies (Phnom Penh, March 2015). While in 1994, 50% of distributed medicines came from France, by 2015, according to the DDF, that share had decreased to 7%, with most medicines now coming from Asian countries, as shown in the table below.

Medicines from India	31%
Medicines from Cambodia	9%
Medicines from Thailand	7%

¹⁴ In 2015, it accounted for 9% of the drug market (interview at the DDF, 2016).

¹⁵ The riel is the official currency of Cambodia; however, due to its weak value (4000 riels = USD 1, depending on the market rate), United States dollars have been in widespread use since the 1980s. Dollars are accepted everywhere and are the main currency used in cities and tourist provinces.

Medicines from France	7%
Medicines from Korea	6%
Medicines from Vietnam	5%
From other countries (Indonesia, China,¹⁶ etc.)	35%

Medicine sources in Cambodia

These transformations in medicine distribution in Cambodia should be interpreted in the context of the more globalized transformations affecting medicine production and the global drug market. Although pharmaceutical companies located in the Global North still play a central role in innovation, research, and intellectual property rights policy, the development of a market in some emerging countries has begun to disrupt the previously established order (Quet et al., 2018, also Introduction of this book). India and China have become major actors in the global drug market. The Indian pharmaceutical industry, which took off with the production and distribution of generic drugs, has become Cambodia's top provider. Even though these official numbers inform us of the diversity of sources and their scale, they should, nevertheless, be interpreted with precaution since, as mentioned above, a high number of medicines are not included in national data, due to considerable informal pharmaceutical circulation.

Legally in Cambodia, an import license issued by the Ministry of Health is required for each drug or each of its formulations. Based on several interviews conducted with representatives of pharmaceutical companies, registration is expensive. Applicants must submit 120 samples, pay USD 1200, and wait two and a half years to obtain the license, which distributors sometimes call a "visa." As we observed during our study, there was still no electronic system to register medicines. In the eyes of some of our interviewees, this contributed to undermining the DDF's figures, and more generally, a lack of confidence in this registration system's effectiveness and the Ministry of Health's ability to test drugs. The registration process requires that medicines be tested at the national laboratory. On this topic, one company sales director confided to us: "At the national analysis laboratory, they don't have any means for testing medicines, no equipment, and they assume that a medicine registered in ASEAN, for example in Singapore or elsewhere, has been tested and, therefore, there is no need to do it. Registration is really a system to get funding" (Phnom Penh, October 2015).

During our conversations with semi-wholesalers¹⁷ and retailers, we understood that both the private and public sectors were distributing imported molecules without a license, namely, molecules for which companies had no import permit. Several of our interviewees said: "Those who want to follow the law cannot. Some essential medicines are not registered." Morphine derivatives and anticancer molecules were cited the most. How is it possible that there is no official market for molecules that public health actors consider to be essential? Our interviewees' responses centered on economic arguments. Marketing these molecules would not be profitable enough for distributors. They explained that, especially in emerging countries, companies focus on distributing certain products. For example, the medicine market for chronic diseases would improve once health insurance was more widespread (interview with a distributor, Phnom Penh, April 2016). One importer-distributor told us: "In Cambodia, the

¹⁶ Based on official DDF data, only 5 percent of medicines that are formally distributed in Cambodia come from China. Today, the Chinese exportation of finished pharmaceuticals has been poorly developed, which, however, is not the case for its production of active ingredients, which it exports widely, including to India (Li, 2019).

¹⁷ Semi-wholesalers purchase their supply from "pharmaceutical companies," sell wholesale or retail, and have a pharmacy license. They are not authorized to import, yet our interviews indicate they import products illegally, mostly from neighboring countries (Vietnam and Thailand). Sometimes these semi-wholesalers run an import company alongside their pharmacy.

population is young, so we mainly import products that target women and children” (interview with an importer, Phnom Penh, January 2016).

Also, the issue of “parallel imports”¹⁸ came up regularly during our interviews with distribution actors. This refers to the importation of the same product by different distributors. These strategies—formal, if they are declared, informal if not—are described as tactics to spark competition and lower the market prices. One gave us the example of Sterimar®. While his company sold this product to retailers at USD 4.50, he saw the same product without a Cambodian Ministry of Health sticker¹⁹ for USD 4 at a semi-wholesaler’s. Speaking specifically about parallel imports, he noted: “It’s not just a few products since it’s enough that official distributors need to lower their prices!” (Phnom Penh, March 2016).

Criteria related to the market, above all, determine access to medicines. Importers complain about the rising number of importers and the increasingly fierce competition. The representative of one company explained: “The Cambodian market is saturated. It’s hard to work; there are too many products circulating with no controls. The market is too free” (Phnom Penh, October 2015). Thus, in this context, many drugs with the same effects are on the market. A retail seller whom we met in Phnom Penh, for example, counted about 50 brands of paracetamol.

The investigation distinguished between three types of importers. Some are pharmaceutical companies that have opened branches in Cambodia. However, their policies differ. Two of them, encountered during the study, registered their products, then trained prescribers and promoted their products before going through a distributor for distribution. Other importers are importer-distributors. They register drugs from several pharmaceutical companies with the Cambodian government and distribute them to semi-wholesalers and retailers in the country’s various provinces. During our study, three large distributors had acquired a large share of the drug market.²⁰ The third category of importers is the semi-wholesalers. They are primarily concentrated around the Olympic Market in Phnom Penh. Ninety-three pharmacies and pharmaceutical companies have been listed around this market.

¹⁸ Here, this term refers to importation of a product registered in another country, without the manufacturer’s prior consent. Parallel imports of a patented product are assumed to be in compliance with the exhaustion regime of the manufacturer’s national, regional, and international rights, once its product is marketed. After that point, it has no legal standing to oppose parallel imports.

¹⁹ Each registered product has a code beginning with KH on its packaging.

²⁰ In order to prevent any form of publicity, these distributors’ names have not been mentioned.



Semi-wholesalers in Olympic Market, Phnom Penh

Based on our interviews, these are small traders who sold small quantities of medicines around markets in the 1980s, and who gradually acquired these businesses and became official semi-wholesalers. Their shopfronts look like any other pharmacies. As with other types of businesses in Cambodia, the semi-wholesalers are in adjoining buildings in a single neighborhood.

Semi-wholesalers have developed a network of clients in all of the country's provinces since the reconstruction of the pharmaceutical market in the 1980s. For a long time, most wholesale transactions have been handled by these Olympic Market semi-wholesalers who use taxis to quickly supply the various semi-wholesalers in the provinces. At the time of the study, they were distributing a large quantity of drugs throughout the country, but the arrival of formidable importer-distributors who distribute directly in the provinces began to change the flow of drugs and decreased their sales (interview with vendors in the Olympic Market, Phnom Penh, 2015). Nevertheless, we regularly heard: "You can find everything at the Olympic Market." Hence, they have maintained a large clientele.

Drugs are transported from the wholesalers to the retailers in boxes, loaded on small motorbikes and mini-vans that may or may not be refrigerated. It is important to remember that Cambodia is a tropical country where temperatures often exceed 30°C, while the instructions inserted in many medicines specify that they should be stored in conditions below 25°C or 30°C.



Transporting medicines on motorbikes

Thus, with the liberalization of the economy, the drug market has become more complex. The number of actors and products requiring monitoring and testing has grown exponentially, each one implementing more-or-less legal accommodations to balance economic interests, practical considerations, and public health requirements. Subsequently, market forces led to an abundance, or even over-abundance, of some therapeutic classes (analgesics, anti-inflammatories, antibiotics, etc.), to the detriment of others that are either rare or lacking, as illustrated elsewhere (Desclaux & Egrot, 2015; Al Dahdah, Kumar, & Quet, 2018).

Regulations and deregulations affecting prescribers, retailers, and consumers

Reviewing the main drug supply sites used by families who were monitored in our study and my observations of interactions between distributors and consumers, I will now describe the logics of distribution and access to medicines that facilitate or compromise the flow of drugs.

Medicine sheets	Pharmacies/depots	Private consultation room	Public health facilities	Private clinics and hospitals
Phnom Penh n=134	49	25	31	29
Battambang n=135	60	39	31	5

Main drug supply sites for families monitored during the study

Our monitoring confirmed the Ministry of Health statistics (National Institute of Statistics, Directorate General for Health, & ICF International, 2015). The majority of patients turn to the private sector, while the majority of medicines consumed by family members in the study were obtained in a pharmacy or pharmacy-depot. There are various reasons for the high number of visits to pharmacies and depots. Firstly, contrary to the law, people can buy virtually any type of medicine without a prescription in these places. Vendors are rarely familiar with the official list of OTC drugs²¹ and for the most part do not include them in their practices, with the exception of a small number of pharmacies that proliferate in cities and tourist areas (Phnom Penh, Siem Reap, Sihanoukville, and Kep) and whose managers want to be known for applying best practices in pharmacy standards (presence of a pharmacist, air-conditioning, and prescription medicines only sold with a prescription). In 2016, we counted about 20 pharmacies of this type in Phnom Penh. Another factor why high numbers of consumers turn to the private sector: the public sector's failure to attract customers who want to treat everyday ailments. In fact, our study shows that public-sector drug distribution does not seem to meet patients' expectations. Various interviewees, from both urban and rural areas, used the following phrases: "there's only para [for paracetamol] at the health center," and "they don't have everything you need"; and "there are frequent stockouts," and "we have to go buy medicines in the private sector." People with the financial means generally avoid this sector or use it for very specific reasons: access to expensive medicines distributed for free (triple therapies for HIV or tuberculosis), a reproductive health follow-up visit, access to free treatments (for poor people with a fee-waiver card), vaccination, or use of an ambulance transport system in an emergency. However, in these facilities, patients see a health professional before being sent to the in-house pharmacy with a prescription. Access to medicines is under the control of health professionals. Yet, can we say that the public sector has greater control on drug circulation than the private sector does, as argued by a former Khmer Rouge cadre (Battambang province, December 2015)? Indeed, in the public sector, nurses in charge of pharmacy transactions fill out prescription and inventory registers in the private sector; whereas in the private sector, despite being a requirement, we have not seen any retail vendors record sales in registers. Nevertheless, drug circulation management in the public sector is regularly criticized. The Ministry of Health is sometimes at the center of health scandals involving fraud and embezzlement, as illustrated by the 2013 study conducted by the Global Fund to Fight AIDS, Tuberculosis and Malaria.²² In addition, we were able to repeatedly find public sector drugs, described as distributed solely through the public sector, on the shelves of private retail vendors.

Another accommodation has occurred since the 1980s during the reconstruction of the pharmaceutical system: pharmacies with no pharmacists and depots with no health professionals. This can be explained in different ways. In the rural area where we conducted our study, we noticed that the owners of these official retail shops were mostly nurses from the community health center. In parallel to their full-time activity in the public sector, these nurses have opened a private outlet and dispense medicines outside of their public work hours, but they sometimes do this during their public sector shift. According to Ministry of Health data, low salaries have led to this dual practice (Ministry of Health, 2012). Public sector health professionals do not earn enough to discourage them from working in parallel in the private sector. When health professionals were away from their private structures, we observed that their business remained open and that a non-qualified person from the socio-family network

²¹ Over-the-counter (OTC) drugs are pharmaceuticals that can be purchased without a prescription. The list of OTC drugs was established in 2009 in Cambodia.

²² https://www.theglobalfund.org/media/6814/oig_gf-oig-17-020_report_fr.pdf, accessed April 2019.

continued to conduct sales. Based on our observations and interviews in rural and urban areas, this fairly widespread phenomenon includes most health professionals in the public sector, whether in Phnom Penh or Battambang. In cities, it seems that the lack of pharmacists in pharmacies is explained less by unavailable human resources and instead by how unappealing pharmacists find working in a pharmacy. According to our interviews, most of these dissatisfied pharmacists seek jobs in international organizations or pharmaceutical companies, sectors that are substantially more rewarding. Contrary to the legal requirements taught at the university, the pharmacists we met in Phnom Penh explained that they “rent” their licenses to pharmacies or pharmaceutical companies in exchange for USD 100–150 per month. With a certain discomfort, they explained that they rarely set foot on the premises where they are officially responsible. This context of “pharmacies without pharmacists” was previously described by Ovesen and Trankell (2007). As noted in the study, the spread of this practice led the Ministry of Health to set up short-term training for drug vendors who are not officially authorized to sell pharmaceuticals to learn basic skills for medicine distribution in a broad range of outlets (pharmacies, Depot-As and -Bs). Some interviewees indicated that this training can be “purchased” and that not all drug vendors follow it, as underscored by Quet et al.; however, this does not mean that these drug vendors’ practices are ineffective or dangerous (2018). Non-qualified vendors are also implementing strategies to ensure medicine quality and people’s health. As pointed out by Quet et al., more often than not, these logics, along with others, make the practice “more functional” (2018, p. 15).

We noted that medicine distribution practices in private consultation rooms²³ are highly similar to those in pharmacies and pharmacy-depots. The doctors, nurses, midwives, and dentists who work there, along with other non-qualified vendors who replace them during their absences or assist them during peak times, take on the role officially reserved for pharmacists and gear their activities toward selling medicines. Health officials maintain that private consultation rooms may carry outpatient drugs for patient care; however, in practice, they have an arsenal of medicines that sometimes equals those of pharmacies and depots. Moreover, although they are not authorized to sell them, quite the opposite occurs: The staff at these facilities explained that the consultation, which rarely takes place, is free and the medicine is paid for. This is a prime example of a process of commodification of medicines. These professionals and laypersons distribute medicines as quickly as pharmacies and depots do, based on very limited conversations with patients. In 2012, this problem had already been uncovered in a Ministry of Health report: “this practice is not legal and the laws regarding separation of roles of prescribing and dispensing need to be enforced” (Ministry of Health, 2012). Again, this also does not mean that the practices are ineffective or dangerous. However, the habit of bypassing auscultation and avoiding direct contact with the patient—a practice that has been highlighted in various studies on health in Cambodia (Bureau-Point, 2016)—is considered to contradict the deontology of health professionals.

Other mechanisms help explain the high number of consumers who visit pharmacies, depots, and medical offices. Indeed, a patient’s trust in a drug distributor is not based on the status of the locations and professionals but on the interpersonal relationship and the perceived efficacy of the treatment received. People generally have one or two preferred locations where they purchase medicines that they have chosen over time, based on their experiences there. A trusting relationship is established with the people who work there. Several factors explain why the sites’ and professionals’ status ultimately plays a minimal role in building trust. Firstly, we mentioned that people hardly distinguish between private medical offices, pharmacies, and

²³ They are smaller than clinics and are the responsibility of municipal health departments (representative of the Physicians Council, February 2015).

depots. The law has designated pharmacies and depots by green crosses and private clinics and consultation rooms by blue ones. However, in practice the colors used do not always comply with these standards and seldom serve as a reference point for individuals to distinguish between these care or pharmaceutical distribution points. More generally, the coexistence of two color codes in popular perceptions in Cambodia partially explains why these color-coded crosses are inefficient: until recently, no distinction was made between green and blue.²⁴

Moreover, although we found numerous unskilled drug vendors working in private medical offices, pharmacies, or depots, our interviews and observations in these structures revealed that clients think they are dealing with qualified health professionals who possess the medical expertise and proper pharmaceutical knowledge to meet their needs. Although clients rarely know the professional status of those who treat them, these individuals are all considered to be *pet* (a diminutive of *kru pet*: *kru*, master; *pet*, hospital, translated in English by “doctor” but used to designate all health professionals). Clients frequently call the people they meet in these various health care points “*pet*.” Health professionals often own depots or pharmacies, and vendors working with them who are generally from their socio-familial environment (a spouse, niece or nephew, cousin, son or daughter, or family friend) sell medicines with them. Regardless of their family status, they are perceived as *pet*, based on their somewhat remote relationship to biomedical knowledge. Several health professionals generalizing about their experience said with some irony: “When one family member is *pet*, the others become *pet* also.” Consequently, in popular perceptions, retailers perform two jobs, providing both professional health consultations and medicines. Therefore, a consultation that does not result in dispensing medicine is generally perceived as useless.

High demand in pharmacies and depots must also be understood in the context of tactics developed by drug vendors and consumers to create a more practical context. One tactic is the practice of “*thnam psoam*.” These distribution methods have advantages and disadvantages for both the vendor and the consumer, as we will see. Medicines, whether tablets or blister packs, are very rarely sold in their original packaging, but rather more often in bulk in clear plastic bags sealed with a rubber band and containing several doses. In Khmer, these bags are called *thnam psoam*, or literally “mixed medicines.” Frequently, vendors put two types of antibiotics, analgesics, or anti-inflammatories in one bag, usually corresponding to one dose. Rarely do vendors have a single type of medicine per bag. These bags are typically composed of three to eight different medicines, combining bulk tablets sometimes with blister tablets, whose quantity, price, and colors vary depending on the vendor, client, urban or rural context, and health issue. Public health officers criticize this practice, particularly because it poses risks of overdosing.

²⁴ According to several local sources, the color green did not exist for a long time. One health professional remarked: “Traditionally, we say that the rice fields or the trees’ leaves are blue” (interview, Phnom Penh, March 2015).



Mixed medicines

The *thnam psoam* are sold and/or requested for certain categories of health problems, such as *pdassai*,²⁵ toothache, stomachache, and diarrhea. Some retailers prepare bags in advance for these different pathologies, but arrange their displays so that they are not very visible from outside the point of sale. They fear inspectors' visits or being reported by potential competitors, regulators of best pharmacy practices, and even researchers!

For vendors, the preparation of the *thnam psoam* allows them to unload the least expensive medicines (usually from Cambodia and India), even though from time to time, especially in cities, clients request *thnam psoam* with "French medicines," which may multiply the price by eight. It also allows vendors to meet their clients' demands, a key point in any business activity. Generally, vendors have repeat customers and know their preferences (whether or not they are interested in *thnam psoam*, preference for small or large *thnam psoam*, spending capacity for health care, preferred source of medicines, etc.), and passing clients whose preferences vendors try to guess based on their appearance (deducing purchasing power through clothing) and on their comments. Interactions between vendors and buyers are brief, and vendors manage with little direction from the patient to guide the treatment. From the vendor's viewpoint, one advantage of the *thnam psoam* is reducing the number of explanations; if the components were given separately, the vendor would have to explain each one to the consumer.

For most consumers, the *thnam psoam* guarantees a more effective treatment. "It's more effective to take the *thnam psoam* than one single medicine because when you're sick, there's always several health problems. So, there must be one medicine for each problem" (mother, Phnom Penh, February 2015). Local perceptions of efficacy dictate that the number of medicines should often be proportional to the number of symptoms. And consuming several medicines at the same time "helps you get better faster" (father, Battambang, March 2016). In addition, another advantage is that the consumer does not need to remember the dosage for each medicine, just the daily number of bags recommended by the vendor (Bureau-Point, Baxerres, & Chheang, 2020).

Client visits to private clinics and private hospitals,²⁶ which are under the responsibility of the Ministry of Health, were lower during the study monitoring. In these facilities, medicines obtained in clinics and private hospitals were prescribed by certified prescribers. Most clinics have either an in-house or an adjoining pharmacy, usually run by a family member of the owner, and patients have a strong incentive to buy their medicines from these facilities.

²⁵ *Pdassai* refers to a "nosologic popular entity" (Jaffré & Olivier de Sardan, 1999) generally translated by "flu" and "common cold," however Cambodians use the word *pdassai* for different types of health disorders: runny nose, headache, sore throat, cough, fever, and sneezing.

²⁶ Clinics are identified as having more than five hospital beds.



Private clinic with an adjoining pharmacy

Generally, our interviewees consider these places expensive because one must pay for both the consultation with a professional and for the medicines or because they are used to getting both services for one low price. Also, since they are located in urban areas, rural patients must cover transportation costs. Patients only consult them for serious problems requiring in-depth medical exams or specific equipment.

These formal and informal practices of prescribers, retailers, and consumers highlight that, alongside today's State regulations that attempt to place tighter constraints on pharmacy practices, the three categories of actors described above play a significant role in the "multiple pharmaceutical regulations" outlined in the Introduction.

Conclusion

This history of the structuring of the Cambodian pharmaceutical market and its excesses, which considers multiple sources of regulation, provides key contextual components to understand the circulation and consumption of medicines in contemporary Cambodia. It highlights several specific characteristics unique to the Cambodian case. The pharmaceutical system, having experienced a virtual return to "square one" with the Khmer Rouge revolution and the various devastating political regimes that ensued, has been rebuilt in informal care delivery points, with traders, and health care professionals who have undergone non-uniform, quick training that may or may not be recognized, in a context where State sovereignty is gradually being rebuilt.

This explanation of the various stages of pharmaceuticalization/depharmaceuticalization, from the introduction of the first drugs during the French protectorate up until the neoliberal context

of the 2010s, provides a detailed view of the friction caused by several forces. These include the State's indigence and its incomplete attempts to provide oversight, the influence of the region's producing countries (India) and regional regulatory systems (ASEAN), as well as the accommodations implemented by various actors involved all along the drug supply chain so that a medicine responds to each actor's economic, pragmatic, and/or cultural preferences.

When viewed as a market commodity embodying a means of boosting economic activity, drugs are easily caught up in financial stakes that are likely to contradict the rules governing biomedicine and public health. Numerous foreign investors, both Asian and European, were attracted by the opportunities offered by this market, which has few State controls. With their huge investments in Cambodia, with or without official support, the drug supply has grown exponentially, with an over-abundance of some medicines and shortages of other molecules. The limited power of official pharmaceutical regulatory bodies and the market's incessant excesses empowers other, "bottom-up," regulatory modes implemented by the State representatives (blue pharmacies and training provided to informal vendors), drug distribution actors ("mixed medicines"), and patients (preferences, trust, and seeking efficacy).

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