

Cross-border medical travels from Cambodia: pathways to care, associated costs and equity implications

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Abstract. In low- and middle-income countries, patients may travel abroad to seek better health services or treatments that are not available at home, especially in regions where great disparities exist between the standard of care in neighbouring countries. While awareness of South-South medical travels has increased, only a few studies investigated this phenomenon in-depth from the perspective of sending countries. This paper aims to contribute to these studies by reporting findings from a qualitative study of medical travels from Cambodia and associated costs. Data collection primarily involved interviews with Cambodian patients returning from Thailand and Vietnam, conducted in 2017 in the capital Phnom Penh and two provinces, and interviews with key informants in the local health sector. The research findings show that medical travels from Cambodia are driven and shaped by an interplay of socio-economic, cultural, and health system factors at different levels, from the effects of regional trade liberalisation to perceptions about the quality of care and the pressure of relatives and other advisers in local communities. Further, there is a diversity of medical travels from Cambodia, ranging from first class travels to international hospitals in Bangkok and cross-border “medical tourism” to perilous overland journeys of poor patients, who regularly resort to borrowing or liquidating assets to cover costs. The implications of the research findings for health sector development and equitable access to care for Cambodians deserve particular attention. To some extent, the increase in medical travels can stimulate improvements in the quality of local health services, including the migration of foreign clinics to Cambodia. However, concerns remain that these developments will mainly affect high-cost private services, widening disparities in access to care between population groups.

Introduction

The global phenomenon of people travelling outside the country of residence for the purpose of receiving health care is characterised by a diversity of practices and motivations (Glinos et al. 2010). Medical travels from high-income countries (HICs) are often driven by the pursuit of more affordable care (Turner, 2007); however, many patients from low- and middle-income countries (LMICs) travel abroad for better or more advanced treatments that are not available at home. Medical travels from LMICs are particularly frequent in regional contexts where great disparities exist in standards of care between neighbouring countries. For example, regular patient flows have been documented from Yemen to Jordan (Kangas, 2007), Libya to Tunisia (Lautier, 2008), Lesotho and Zimbabwe to South Africa (Crush and Chikanda, 2015), Bangladesh to India (Mamun and Andaleeb, 2013), Laos and Myanmar to Thailand (Maung

and Walsh, 2014; Bochaton, 2015; Noree, Hanefeld, and Smith, 2016; Durham, 2017), and Indonesia to Malaysia (Ormond and Sulianti, 2014; Ormond 2015; Whittaker et al., 2017).

Research exploring the practice of medical travels from LMICs has increased in recent years, highlighting the limitations of the national health system as a unit of analysis in studies of health seeking behaviour. As pointed out in a recent literature review of South-South medical travels, “restricting health system analysis to national public sector services, whilst attractive in terms of planning, distorts our understanding of the health system, provides a misrepresentation of health-seeking practices, and masks the true burden of disease” (Durham and Blondell, 2017, p.1). One important issue emerging from this body of work is a concern with equity (Whittaker, 2015), understood as the “conditions whereby those in equal needs have equal *opportunities* to access health care” (Oliver and Mossialos, 2004, p.655). While access to health services abroad may provide an opportunity to receive a higher level of care, medical travels from LMICs often expose inequities between those who can afford the travel, those who cannot, and those who travel but face dire economic consequences. For example, a survey in the Maldives found that households of medical travellers may face catastrophic expenditures, even when subsidies are available (Suzana et al., 2015).

Despite increasing awareness in the literature, knowledge of medical travels from LMICs remains patchy and fragmentary. As documented by Durham and Blondell (2017), empirical studies of this phenomenon have been conducted only in a handful of countries, providing a thin evidence base for triangulation and comparative case study analysis. Considering this gap in knowledge, here we present and discuss results from a study of medical travels from Cambodia; specifically, the study aimed to document and understand (1) why and how Cambodians use health facilities outside the country; (2) their experiences of medical travels,

particularly in relation to the quality of care; (3) associated costs and strategies to cope with the economic burden. After a description of the study context and the research methods, the results sections synthesise findings from interviews with Cambodian citizens returning from medical travels to Thailand or Vietnam. In the discussion, consideration is given to the implications of the research findings for broader health sector development and equitable access to health care.

Study context

Cambodia is located in the southern part of the Indochina peninsula, sharing national borders with Laos, Thailand, and Vietnam. It has a population of 16.2 million, mainly living in rural areas (The World Bank, 2019). In the past decades, sustained efforts have been made to improve the national health system after the tragedy of the Khmer Rouge regime (1975-1979), which resulted in severe shortages of health workers and the devastation of the health infrastructure. In 1996 a major reform was initiated to increase health sector coverage and access to services. To further improve accessibility and affordability of health services for the whole population, lay health workers were appointed in remote rural communities (Liverani et al. 2017) and innovative pro-poor health financing schemes were introduced to reduce the financial pressure on the poor (Ensor et al., 2017). Over time, these efforts have contributed to a substantial increase in the uptake of health services (Dingle et al., 2013; Fernandes Antunes et al., 2018). However, concerns remain about the quality of care (Gryseels et al., 2019), particularly for core services that have received little donor support such as emergency care (Yan, 2015) and the diagnosis and management of non-communicable diseases (Jacobs et al., 2018). By contrast, health facilities in Vietnam and, especially, Thailand have gained a

reputation for more reliable and comprehensive care, attracting large flows of patients from Cambodia and other less resourced neighbours, including Laos (Bochaton, 2015; Durham, 2017) and Myanmar (Maung and Walsh, 2014).

The changing context of international relations and political economy has been another key driver of cross-border patient mobility from Cambodia. Following decades of turmoil, in the early 1990s political transition and the process of democratisation ended a long period of isolation and opened Cambodia to greater engagement with the international community and regional cooperation. Since 1992, the Greater Mekong Subregion (GMS) programme, sponsored by the Asian Development Bank, has been an ambitious effort to integrate the economies of six countries - Cambodia, China (Yunnan Province and Guangxi Autonomous Region), Laos, Myanmar, Thailand, and Vietnam (Glassman, 2010). In the process, substantial investments have been made to increase cross-border connectivity through the construction of new roads and bridges along the so called “economic corridors” and more frequent direct flight connections between major urban centres (ADB, 2011). In addition, bilateral cooperation agreements and the strengthening of regional integration through the Association of Southeast Asian Nations (ASEAN), joined by Cambodia in 1999, have reduced travel restrictions and border formalities for ASEAN citizens who travel to other ASEAN member states (ASEAN, 2006). In combination with persisting imbalances in national economies and work opportunities, these changes have promoted a steep increase in the volume and diversity of cross-border population mobility, including migrant workers, traders, students and tourists. In 2018, it was estimated there were 3.9 million migrants in Thailand from Cambodia, Laos, Myanmar, and Vietnam (Harkins, 2019).

In this context of increasing intra-regional mobility, medical travel to neighbouring countries with more advanced health systems has become an attractive option for many Cambodians. Until recently, medical travels were a privilege of the local elite and expatriates working in NGOs and international organisations, routinely “evacuated” by charter flights to international hospitals in Bangkok for advanced medical care (Ovesen and Trankell, 2010). Today, the increasing purchasing power of Cambodians as a result of economic growth and easier access to neighbouring countries have promoted the utilisation of health facilities abroad by many Cambodian citizens – not only migrants and seasonal labourers but also those who travel abroad for the main purpose of seeking medical care. In 2010, for example, Cambodia was one of the top ten countries sending patients to the five largest international hospitals in Thailand, including three major hospitals in Bangkok, with 3,837 patients and more than 10,000 annual visits (Noree et al., 2016). More recently, a local newspaper reported that medical travels accounted for 24 to 30% of the 1.4 million outbound international trips taken from Cambodia in 2016 based on data from the Ministry of Tourism (Lim, 2017; Tang, 2019).

Methods

Research design

This study sought to investigate the practice of medical travels from Cambodia at two interrelated levels of analysis. First, we aimed to understand why and how Cambodians use health facilities in neighbouring countries and their experiences of medical travels. To this end, we relied on the “pathway to care” model, an approach initially developed in the field of medical anthropology to examine decisions and practices at different stages in the course of

illness (Kroeger, 1983). Unlike other models of health seeking behaviour, based on more exploratory, open research questions (e.g. “What do people do when they feel sick?”), the pathway model focuses on a predetermined consultation or treatment outcome (e.g. “Why and how do people use a particular type of health provider?”). In recent years, this approach has been used primarily in the field of social psychiatry to describe the sequence of steps leading patients with mental health disorders to seek professional consultation and services (e.g. Hashimoto et al. 2015). In our study, we aimed to elicit views and experiences of medical travellers on their pathways to care outside the country, including background of consultations and treatments in Cambodia (if any), factors shaping the decision to travel, the choice of destinations and ways to reach them, and views about the quality of care received at different stages in the medical journey. Second, we were interested in the material, economic aspects of medical travels and their impact on patients and their families. In keeping with other studies of cost of illness in Cambodia (Humphries-Waa et al., 2013; Khun and Manderson, 2008), we aimed to collect data and information on (1) direct medical costs, (2) indirect costs (such as transport and lodging), and (3) how medical travels were financed.

Data collection

Data collection primarily involved interviews with Cambodian patients (or their caregivers) who had recently travelled outside the country for medical care (within six months prior to the interview), purposively sampled to reflect the diversity and breadth of the study population. Specifically, interviews were conducted at three different sites to capture rural and urban perspectives across the country and different patterns and itineraries of medical travels: Oddar Meanchey, a province located in the remote northwest of Cambodia which encompasses a long

stretch of the 817 kilometre border with Thailand; Takeo province, located in the southwest and bordering the south of Vietnam; and the capital Phnom Penh (Figure 1). In the two rural areas, participants were recruited in different villages, located at variable distance from the country border (from 3 to 70 km). Since lists of medical travellers were not available, in each study location multiple strategies and entry points were used to identify potential participants and minimize sampling biases, including door-to-door recruitment, asking individuals in the communities (such as vendors at small shops or stalls along the main road in the village) if they knew anyone who had recently travelled outside the country for the purpose of receiving medical care, consultation with community leaders, and snowball sampling whereby participants were asked to nominate other returning medical travellers in their social network. Interviews were conducted between May and June 2017 by pairs of researchers (one female and one male), including the first author, and two Cambodian social researchers. Interviews were conducted using a semi-structured guideline approach, informed by the research design and the lines of inquiry outlined above. At the end of the interview, basic demographic data and information on socio-economic indicators were collected for all participants. In addition to medical travellers, interviews were also conducted with five key informants at the central and provincial departments of the Ministry of Health in Cambodia, identified amongst those who could provide expert knowledge and informed views on the topic.

[Figure 1 here]

Data analysis

Qualitative data from interview transcripts were first extracted and categorised according to the main areas of inquiry covered in the interview schedule; within each topic area, emerging

themes were identified through an inductive, iterative process of coding and constant comparison of findings (Glaser, 1965) using the data analysis software nVivo 12. Quantitative data on economic costs and socio-economic status were double-entered in Excel and then imported into Stata version 13 for descriptive statistical analysis. A nationally representative survey of 5,000 households [anonymised for peer review] was used to construct weights for an asset-based wealth index by performing a principal component analysis on the ownership of durable assets (e.g. fridge, radio, motorbike) and access to utilities (Vyas and Kumaranayake, 2006). The household survey was also used to determine cut-off points for wealth tertiles. Basic socio-demographic data and information on the study sample (n=49) are provided in Table 1. This study was approved by the ethics committees at the University of New South Wales (Ref: HC15431), the London School of Hygiene and Tropical Medicine (Ref: 11904), and the National Ethical Committee for Health Research in Cambodia (Ref: 347NECHR). Informed consent was obtained for every participant. In line with the protocol approved by the three ethics committees, all participants, including key informants, are anonymised. In the presentation of findings below, reference to and citations from interviews in Oddar Meanchey, Takeo, Phnom Penh, and with key informants are denoted by the unique identifiers OD-*n*, TAK-*n*, PP-*n*, KI-*n* respectively.

[Table 1 here]

Results

Pathways to care

Geographies of medical travels

Findings from this study show that the map of medical travels from Cambodia is defined by a diversity of practices and itineraries, depending on socio-economic status, place of residence, and familiarity with the destination. Among informants, there was a consensus that premier international hospitals in Bangkok or even Singapore, served by frequent direct flights from the capital and Siem Reap, are the preferred destination for better-off Cambodians. In our sample, one pharmacist from Phnom Penh would regularly fly to Bangkok with his family to undertake medical check-ups (PP08). Most participants, however, travelled overland to more affordable clinics either in Vietnam or rural Thailand (see Table 1). For participants living in the southwest of the country, hospitals and clinics in Ho Chi Minh City or the surrounding provinces in southern Vietnam were the destination of choice. One informant in Takeo said that many patients travel to Vietnam because they believe “the quality of the health service is better than here (...) and they recover sooner” (KI02). For participants living in Oddar Meanchey, medical care outside the country was sought in Thailand due to proximity and the good reputation of the health services. In Thailand, Surin province was a particularly popular destination, attracting large flows of Cambodian patients from Oddar Meanchey and other places including “Battambang, Banteay Meanchey, and Siem Reap” (KI04) also due to historical and cultural ties. For centuries, this province has had a strong presence of ethnic Khmers, who still maintain some traits of their cultural identity and speak a dialect known as Khmer Surin, closely related to modern Cambodian (Vail, 2007). Returning medical travellers explained they could understand clearly doctors and nurses in Surin and felt comfortable with them (OD12, OD19).

In remote villages along the border, the distance between place of residence and local health facilities emerged as another important variable influencing health seeking behaviour. In Takeo, the recent construction of new roads has greatly facilitated travels to Vietnam; in addition, residents in local communities can use a simple border pass at local crossings and no longer need a visa. As a result, in some areas, clinics outside the country are more accessible than local hospitals and visited not only in the event of serious health issues but also for routine health checks and deliveries:

“The hospital [in Vietnam] is closer than the nearest public hospital in Cambodia and my son could not walk due to pain, so we went to Vietnam.” (TAK14)

In Oddar Meanchey, those living near the border also reported frequent visits to health facilities in Thailand. A few participants crossed the border back and forth regularly for local commerce and trade; thus, seeking care in Thailand fitted easily into their routines; others combined medical care with leisure and shopping:

“Many people go to Thailand not only for seeking care but also for tourism (...) And they think the products from Thailand are good quality, so they buy [washing] powder, clothes, other stuff” (KI04)

In addition to borderland communities, medical travels were undertaken by many participants who lived far away from the border, often involving long and tiring journeys (up to one full day). Despite improvements in the road infrastructure and the reduction in travel restrictions, only certain vehicles with a temporary permit can enter Thailand and Vietnam by land crossing. Thus, most participants were forced to change transport at border crossings and reach their destination using other means, such as taxi, moto-taxi, train, or bus. From Phnom Penh, those who travelled to Ho Chi Minh City and other cities in the surrounding provinces also reported

arduous road trips. In the past few years, new van services and direct ambulance services have been established in the capital to respond to the increasing demand for cross-border care. In our sample, three participants used an ambulance from a subsidiary Vietnamese clinic in Phnom Penh to connect with the parent hospital in Ho Chi Minh City, where more advanced care was available. However, most patients could not afford such service and embarked in less comfortable journeys on shared minivans.

Making the decision to seek care outside the country

Anticipated logistical challenges, discomfort, and costs are all factors that discouraged medical travels, especially if the patient was poor, lived far away from the border, had no previous experiences outside the country, and was in poor state of health. In such cases, the decision to travel abroad was often a late step in a long pathway of trials and errors to address a serious health concern, which typically began with the recognition of symptoms, followed by self-medication and one or several attempts at public or private clinics in the country (or both) and, at times, consultation with traditional healers (known in Cambodia as *kru khmer*). If the patient did not recover, a collective decision was made in the household about the next health care option, which included the possibility to travel outside the country after considering the financial implications. In our sample this advice was given most frequently by a family member or other acquaintances who had sought care in Thailand or Vietnam (including migrants living in either country), but referral from health practitioners in Cambodia was also common. Occasionally, the decision involved the advice of a facilitator, who would charge a small fee to travel with the patient to the foreign country and act as cultural broker. In Oddar Meanchey, for example, one participant was a former medical traveller, who capitalised on her experience

in Thailand and knowledge of Thai to support other people in the community: “they don’t know how to go and where to go, so I help them (...) I charge 500 Baht a day per person plus travel expenses and accommodation (...) but I charge only 1,000 Baht for three persons”, she explained (OD03). Similarly, bilingual facilitators were also reported to operate in southern Vietnam. One informant explained that many of them are ethnic Khmer living in Vietnam, known as Khmer Krom, who retain linguistic, cultural, and family links to Cambodia and use their connections to attract Cambodian patients to Vietnam (KI01).

While the first decision to seek care outside the country was a difficult choice to make for most patients, those undertaking subsequent medical travels generally found it more straightforward not only from a logistical point of view but also in terms of familiarity, trust, and customer satisfaction. Most participants reported positive views of health care both in Thailand and Vietnam, commenting on the “friendliness” (*reak teak*) of doctors and nurses, the availability of advanced medical technology and “tools” (*upakor tum-neub*), and “cleanliness” (*sa-aat*) of health facilities. By contrast, the attitude of Cambodian doctors and nurses was perceived at times to be uncaring or discriminating. One participant noted that treatment in Thailand, unlike in Cambodia, was not based on the “colour of the skin, the appearance, or the clothes” (OD20). Other participants appreciated that both in Thailand and Vietnam the bill was settled during or at the end of treatment (TAK02, OD09, OD13), and one of them said that in Cambodia “without the money, we don’t even enter the hospital” (TAK02).

Based on our study, we cannot say if such perceptions were already formed prior to medical travel. However, the analysis of interviews indicates that the experience of care abroad raised the expectations about the quality of care, encouraging further medical travels. Indeed, many participants reported multiple trips abroad or intended to do so in the future, while others

recommended medical travels to relatives or friends. In addition, subsequent travels were also promoted by marketing strategies in receiving countries. Some participants noted that a popular hospital in Surin province provides a fidelity card after the first visit, which entitles to a discount of 10% for the second visit and 20% for any other subsequent visits (PP02, OD04, OD06). Other participants praised the high level of customer-oriented care in Thailand, at times targeted to Cambodian patients; for example, one medical traveller in Oddar Meanchey said that at a private hospital in Thailand there was a large billboard saying “Welcome Cambodian people” and many signposts in Khmer to indicate the way to the wash room and other facilities (OD15).

The micro economy of medical travels

Medical costs

Local newspapers reported that hundreds of millions of dollars are spent by Cambodians on health care outside the country every year (Khmer Times, 2016); however, an accurate estimate of the cost of medical travels at the national and household level is difficult to make, given the diversity in pathways to care, the involvement of different host countries, and the lack of reliable data. In our sample, there was considerable variance between cases, depending on the nature of the health problem, the length of hospitalisation, and the type of facility. At the lowest end of the spectrum, there were participants living in borderland communities who had visited health facilities abroad for a simple medical check. For example, a woman in Oddar Meanchey paid US\$20 in Surin for a consultation and blood test (OD15). In many cases, however, direct medical costs exceeded US\$500 and were incurred by participants across different groups

(Table 2). At the other end of the spectrum, as expected, the highest costs were associated with long-term hospitalisation. In one extreme case, a patient who had suffered serious injuries after a road accident was hospitalised for two months in Ho Chi Minh City, incurring a direct medical cost of more than US\$30,000. Before travelling to Vietnam, the same patient was treated for ten days in emergency care at one of the main hospitals in Phnom Penh, at a cost of US\$5,000. Similarly, many other participants reported out-of-pocket medical costs in Cambodia prior to and, at times, after the medical travel outside the country. As described earlier, the decision to travel outside the country was often a late step in a long process of trial and error at local health facilities, where out-of-pocket payments were common. The story of Srey, a woman in her seventies living in a remote village in Takeo province, well illustrates this pattern (TAK15). Srey was diagnosed a few months before our interview with stones in both kidneys at a private clinic in Takeo. Despite receiving treatment at several local clinics, the problem persisted. In total, she visited three private clinics and the provincial hospital in Takeo, at a total medical cost of US\$190. Following the recommendation of a local doctor, she was then admitted to a private clinic in Phnom Penh, where the cost of kidney surgery was US\$1,100. Eventually, she was advised by her son to travel to Vietnam, where she paid US\$340 for the treatment and about US\$100 in travel costs. She also made two follow-up visits to the same hospital in Vietnam, costing US\$170 (excluding travel expenses). The doctor in Vietnam explained she should undertake another surgery to remove the stone from the other kidney, but she had depleted all her savings and could not fund a return trip to Vietnam.

[Table 2 here]

Non-medical costs

Non-medical expenditures add to the cost of cross-border medical care. In addition to the transport costs to reach the facilities, these included purchasing a border pass (between US\$2 and \$5, depending on the location), a translator for those traveling to Vietnam (between US\$5 and US\$12 a day), lodging (between US\$5 and US\$25 a day) and food for the caregivers (between US\$5 and US\$20 a day). There was great variability in transport costs, depending on the location and modes of travel. Ambulance services from Phnom Penh to Vietnam were the costliest items, exceeding US\$500 for a one-way transfer. However, for those living near the border, the cost of reaching the nearest clinic outside the country could be as little as US\$5. In most cases, fees at the hospitals abroad included accommodation and food for the patients, but not for accompanying caregivers. While guesthouses around the clinics in both Thailand and Vietnam were relatively cheap, lodging was still a significant cost for the families of patients with extended hospitalisation.

Coping with the economic burden of cross-border travels

Many participants in our study suffered financial hardship due to medical travel and the additional costs of health care in Cambodia for the same episode of illness – a burden often exacerbated by loss of income for the patient and/or caregivers. To cope with the expenses and loss of income, most participants resorted to borrowing. While some patients borrowed from microcredit institutes or private moneylenders, many obtained interest-free or low-interest loans from family members or friends. Nonetheless, the majority of those who borrowed still had not repaid the debt at the time of the interview and dire financial circumstances were reported across different socio-economic groups. For example, a civil servant living in Phnom Penh incurred an overall cost of US\$9,000 for brain surgery in Vietnam, explaining that:

“It affected me a lot. You know... I used my own saving, and I borrowed from my family as well. Every month, I also have to pay for the house that I bought. I have the mortgage on my house. I stopped my child studies in the private school. Now, he studies in the public school because I have no money left to pay for his school fees” (PP07)

In poorer households, the cost of medical travel and the need to repay the loan forced some participants to sell jewels, land, livestock and, in one case, the family home. Srey, the woman who was treated in Vietnam for kidney surgery, had to sell a farming plot and three cows to repay a moneylender (TAK15). Another participant, who travelled more than ten times to Vietnam for continued ear treatment sold agricultural land:

“We used to get more profit from our farm, but now it is less because we sold some land. We used to make a 300,000 riels profit every month [about US\$70], but now we make only 120,000 or 160,000 [US\$30-40]. It affects our living. We used to harvest enough rice to eat, but now we need to buy some from others. If we don't sell [the land], we don't have enough money for my treatment” (TAK13)

While these narratives illustrate that medical travel can place a significant economic burden on households, there was a consensus that care in both Thailand and Vietnam is cheaper than comparable options in Cambodia providing an additional incentive to medical travellers. Two participants also noted that medicines in Vietnam were cheaper than in Cambodia (TAK13, PP09). While a systematic comparison of medical costs in Cambodia, Thailand, and Vietnam was beyond the scope of this study, it is important to note that a large proportion of Cambodians, especially the poor, regularly resort to borrowing to meet the cost of health care, even when care is sought solely in the home country (Ir et al., 2012, 2018). In addition, as emerged in our interviews, the quest for the best care options in Cambodia often entails traveling from rural

areas to facilities in Phnom Penh or Siem Reap, which involve similar or even higher costs than travelling abroad (OD03).

[Figure 2 here]

Discussion

Taken together, findings from this study show that the practice of medical travels from Cambodia is driven and shaped by factors at different levels of analysis (Figure 2). At the regional level, improvements in the road infrastructure for cross-border mobility, better transports and a reduction in border formalities have facilitated the transnational flow of people, including medical travellers. In receiving countries, consumer-oriented care and marketing strategies encourage continued use of health facilities from foreign patients. In Cambodia, place of residence, socio-economic status and familiarity influence itineraries and ways to reach the destination, ranging from first class travels to international hospitals in Bangkok and cross-border “medical tourism” to perilous overland journeys of poor patients as summarised in Table 3. In the local communities, the pressure of different advisers contribute to the decision to seek care outside the country, especially for those who have no previous experience of medical travel; similar to findings in India (Hartman 2019), Laos (Bochaton 2015), and Indonesia (Chee et al., 2017), advisers may include not only relatives and friends in sending or receiving countries but also bilingual facilitators with ties in both countries, paid to guide and support local patients through the medical journey. Finally, in keeping with a recent study of patient mobility from Indonesia to Malaysia (Whittaker et al., 2017), our study further documents the importance of historical and cultural ties in shaping the geography of health seeking behaviour, as evidenced by the popularity of medical travels to Surin province and the involvement of Khmer Krom facilitators at hospitals in southern Vietnam.

[Table 3 here]

A review of the findings also enables a critical assessment of the costs of medical travels and associated equity challenges. Even if we assume that direct medical costs in Thailand and Vietnam are lower than comparable options in Cambodia, as some participants noted, medical travels still impose a significant financial burden on many households. Importantly, our study indicates that Cambodian medical travels are not only undertaken by wealthy patients but also by ordinary citizens and the relatively poor, who regularly resort to borrowing or liquidating assets to pay for that care. While the costs of South-South medical travels have been documented in other countries (Kangas 2007; Suzana et al. 2015), an important finding from our study is that medical travels are often a late step in a long trial-and-error process involving health facilities in the home country, particularly for poor patients who were more reluctant to seek care abroad in the first place due to anticipated costs and logistical challenges. Thus, the case of Cambodia illustrates that the economic burden and equity implications of medical travels from LMICs must be considered within wider trajectories of health seeking behaviour, where direct and indirect costs are often incurred inside and outside the home country. In addition, there are equity issues related to the logistics of medical travels, particularly for poor families who live far from the borders. Despite improved links and road infrastructure, a road trip from Phnom Penh to Ho Chi Minh City takes at least five hours. As such, this remains a last resort for those who have lost faith in the local health system, while the prohibitive costs of cross-border ambulance services may force many patients to undertake long trips on cramped minivans, potentially hazardous for critically ill travellers (see also Muong and Fitch Little, 2014). In Cambodia, where many efforts have been made to facilitate geographic accessibility and affordability of health facilities, these practices should be given further

attention in policy and planning. Of concern, two participants sought care outside the country in spite of being holders of the “poor card”, a document which entitles pre-identified poor patients to fee waivers, reimbursement of transport, and food stipends for care obtained locally (Ensor et al., 2017). In principle, existing regional cooperation mechanisms could be used to address these challenges. In particular, the ongoing process of regional integration through the ASEAN Economic Community, established in 2015, may open a policy window to introduce a legal framework such as the directive on the patients’ rights in cross-border care in the European Union (Legido-Quigley et al., 2011). To date, however, ASEAN policy has prioritised the liberalisation of health services with much less attention to the equity implications and social harmonisation, despite the signature in 2007 of the ASEAN Declaration on the Protection and Promotion of the Rights of Migrant Workers. Yet this is one of the most important barriers to the achievement of a truly universal health coverage in the ASEAN region, given the high volume of population flows across borders and the lack of adequate regional health policy to keep pace with this challenge (Guinto et al., 2015).

What are the prospects for the future of the health sector in Cambodia? As medical travel is a recent and evolving trend, the implications for the local health system are uncertain. Our study suggests that experiences of health services in Thailand and Vietnam raise the expectations of Cambodian citizens about the quality and standard of care. As a result, medical travels have the potential to stimulate greater competition whereby local health providers seek to improve their quality of care and to reduce their fees to keep up with the competition. In the private sector, for example, more advanced clinics have been established in recent years “to attract Cambodians, especially those who usually go abroad for treatment”, as the director of a new private hospital in Phnom Penh reportedly said (Khmer Times, 2016). In addition, medical travels have promoted an increase in investments by foreign medical companies in Cambodia,

which are likely to expand due to growing demand and regional economic policy which has lowered restrictions to trade in health services (Arunanondchai and Fink, 2007). For example, the Bangkok Dusit Medical Services Public (BDMS), a Thai corporate entity with nearly 30 clinics in Thailand, opened two clinics in Cambodia, equipped with advanced technology and staffed with Thai doctors, in recognition that “Cambodians are coming to Thailand, to Singapore and Vietnam” (Renzenbrink, 2013). Similarly, a Singaporean group recently announced plans to build a new clinic in Phnom Penh, a decision that was made “when they became aware of the growing number of Cambodians that travel abroad, particularly to Thailand and Singapore, for advanced medical care” (Sok, 2018). In an increasingly crowded marketplace, investments from Japan and Vietnam are also prominent. In 2014, five Japanese doctors set up a new clinic in Phnom Penh to “increase the quality of life for many Cambodian patients, who no longer have to travel overseas for treatment” (Moeun, 2014). While the migration of foreign clinics to Cambodia may increase access to high quality private services in the country, concerns remain that these developments have the potential to widen inequities between population groups.

The impact of medical travels on the public health sector in Cambodia is more difficult to ascertain. In recent years, there has been a debate in the media over the quality of public health services in Cambodia, often associated with the practice of medical travel. This debate has seen contrasting positions, ranging from those who have defended the skills of Cambodian doctors (Kim, 2017) to those who have criticised civil servants who routinely seek care abroad – notably, in an article published in 2015, one observer reportedly said: “If [civil servants] get domestic health care and see for themselves that service is poor, then they would make changes. But if they go abroad, they won’t care” (Pech, 2016). Yet the Ministry of Health has recognised the need to improve the quality of care in the ongoing process of health system strengthening

towards universal health coverage. In the latest Health Strategic Plan (2016-2020), the Ministry of Health identified “sustaining and improving access and coverage with a renewed focus on quality of health services across geographical areas” as a key priority (MOH 2016). Considering enduring gaps in human resources, infrastructure, and the regulatory framework (WHO 2014, Clarke et al. 2016), this remains a major challenge in Cambodia. Nonetheless, it is a challenge that needs to be met otherwise inequities in access to services and the financial burden of ill-health are likely to widen. In light of our findings, efforts to achieve this should not only consider technical and economic aspects of the quality of care but also the acceptability of health services and their ability to respond to the preferences and expectations of patients and their families.

Study limitations

Given the research design and the use of qualitative methods, we cannot establish the magnitude of trends and practices discussed here. Thus, a nationally representative survey would be a useful follow-up to this study, providing a more precise assessment of medical travels, their economic burden and distribution across socio-economic groups. In addition, we could not carry out fieldwork in Thailand and Vietnam due to challenges to obtaining the necessary authorizations within the project timeframe. This would have been a useful method to complement and triangulate findings from the interviews, enabling a more fine-grained analysis of interactions between Cambodians and medical staff at foreign clinics and a better understanding of supply-side issues such as those related to hospital billing and payment rules.

Conclusions

To the best of our knowledge this paper is the first attempt to map drivers, experiences, costs, and implications of medical travels from Cambodia. As such, it provides novel insights for those interested in access to health care and health sector development in the country. At the same time, it adds to the small number of case studies of South-South medical travels, contributing to an understanding of the “health system” beyond the national framework. In addition, the use of the ‘pathways to care’ methodology provides an original angle to document the diversity of South-South medical travels, placing them in wider trajectories of health care seeking behaviour and associated costs. Lastly, we provide a systematic exposition of drivers of medical travels at different levels of analysis, which can be useful to inform future research on this topic, particularly in contexts of increasing regional integration. In this respect, our findings reflect those from other contexts of cross-border health care, where imbalances in health and development between neighbouring countries, coupled with increasing population mobility across borders, have resulted in a steep increase in medical travels (e.g. Bochaton 2015; Durham 2017). Yet the case of Cambodia further illustrates the effects medical travel can have on equitable access to health services and health sector development. While these effects are variable and context-dependent, processes of trade liberalisation and persistent imbalances within and between national health sectors are likely to produce similar changes elsewhere. In LMICs that are working towards universal health coverage, these developments deserve research and policy attention because they can facilitate access to high-quality care but can also reinforce inequities as they are only accessible to better-off people or at hazardous economic costs.

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Table 1. Demographic characteristics and utilisation patterns among travellers from the three study locations

	Oddar Meanchey N (%)	Takeo n(%)	Phnom Penh n(%)	Totals n(%)
Sex				
Female	12 (60.0)	14 (70.0)	2 (22.2)	28 (57.1)
Male	8 (40.0)	6 (30.0)	7 (78.8)	21 (42.9)
Age of patients				
< 5	3 (15.0)	-	-	3 (6.1)
5-15	-	-	-	-
16–30	1 (5.0)	4 (20.0)	1 (11.1)	6 (12.2)
31-50	10 (50.0)	6 (30.0)	6 (66.7)	22 (44.9)
51-70	6 (30.0)	8 (40.0)	2 (22.2)	16 (32.7)
> 70	-	2 (10.0)	-	2 (4.1)
Wealth quintiles				
Poorest 20%	5 (25.0)	5 (26.3)	-	10 (20.8)
2 nd quintile	2 (10.0)	9 (47.4)	-	11 (22.9)
3 rd quintile	6 (30.0)	3 (15.8)	-	9 (18.8)
4 th quintile	5 (25.0)	2 (10.5)	3 (33.3)	10 (20.8)
Richest 20%	2 (10.0)	-	6 (66.7)	8(16.7)
Destination				
Bangkok	-	-	1 (11.1)	1 (2.0)
Ho Chi Minh City	-	6 (30.0)	6 (67.7)	12 (24.5)
Thailand province	20 (100.0)	-	1 (11.1)	21 (42.9)
Vietnam province	-	14 (70.0)	1 (11.1)	15 (30.6)
Health issue				

Sign & symptoms	11 (55.0)	8 (40.0)	2 (22.2)	21 (42.9)
Chronic condition	3 (15.0)	2 (10.0)	3 (33.3)	8 (16.3)
Childbirth and maternal health	1 (5.0)	3 (15.0)	-	4 (8.2)
Emergency care	5 (25.0)	7 (35.0)	4 (44.4)	16 (32.7)
Length of stay				
1 day	5 (25.0)	1 (5.9)	-	6 (14.0)
2 days	2 (10.0)	-	-	2 (4.7)
3 to 7 days	9 (45.0)	5 (29.4)	2 (33.3)	16 (37.2)
8 to 15 days	3 (15.0)	4 (23.5)	2 (33.3)	9 (20.9)
16 to 30 days	1 (5.0)	6 (35.3)	1 (16.7)	8 (18.7)
> 30 days	-	1 (5.9)	1 (16.7)	2 (4.7)

Table 2. Direct medical costs abroad by wealth tertile (n=49)

US\$	T1 (poorest) N (%)	T2 N (%)	T3 (richest) N (%)	Total N (%)
< 50	-	-	2 (6.7)	2 (4.1)
50-250	1 (16.7)	2 (15.4)	6 (20.0)	9 (18.4)
251-500	-	5 (38.5)	2 (6.7)	7 (14.3)
501-1000	1 (16.7)	3 (23.1)	8 (26.7)	12 (24.5)
1001-3000	4 (66.7)	2 (15.4)	8 (26.7)	14 (28.6)
> 3000	-	1 (7.7)	4 (13.3)	5 (10.2)
Total	6 (100)	13 (100)	30 (100)	49 (100)

Table 3. Typologies of medical travels from Cambodia

	Destination	Socio-economic status	Health condition	Residence of medical travellers	Travel mode	Pathway to care
Premium international care	International hospitals in Bangkok, Singapore	Richest	All health issues, including medical check-ups and deliveries	Urban	Plane	Direct or following multiple attempts in Cambodia
Overland medical travels	Rural provinces in Thailand and Vietnam,	From better-off to relatively poor	Serious health concern	Urban and rural	Direct ambulance service; multiple means (ie taxi, minivan, bus, train)	Following multiple attempts in Cambodia
Cross-border care	Rural provinces in Thailand and Vietnam	Relatively poor	All health issues, including medical check-ups and deliveries	Remote communities near border crossings	Multiple means (ie moto, taxi, minivan, bus, train, boat)	Direct



Figure 1. Study locations and main overland border crossings to Thailand and Vietnam.

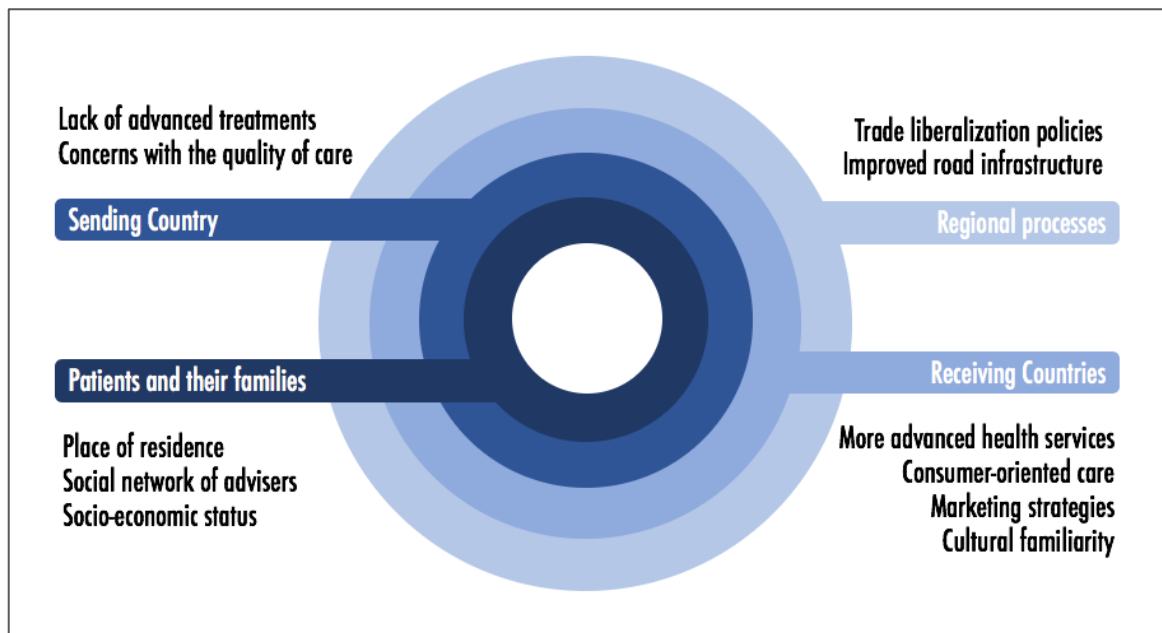


Figure 2. A diagram of concentric circles illustrating factors influencing pathways of cross-border care at different levels of analysis