POLICY PAPER

Out of reach? The critical barrier of transportation to access reproductive, maternal and newborn health services for vulnerable women in northeast Cambodia

Executive Summary

Transportation plays a vital role in determining access to reproductive, maternal and newborn health (RMNH) services for the poorest. Women from remote areas experience high transportation costs, long travel distance, greater travel time, and challenging geographical terrain, in addition to associated opportunity costs. This policy paper affirms the need to address the issue of transportation as a critical barrier for low-income groups to accessing RMNH services in the four northeast provinces of Cambodia: Kratie, Stung Treng, Ratanak Kiri and Mondul Kiri. It also highlights these that have proven successful in Cambodia and provides recommendations that can complement existing mechanisms in hard to reach communities.

Partnering to Save Lives (PSL) is a partnership between the Cambodian Ministry of Health (MoH), the Australian Government, CARE, Marie Stopes International Cambodia and Save the Children. PSL aims to save the lives of women and newborns in Cambodia through improved quality, access and utilisation of RMNH services with particular attention to most vulnerable groups including impoverished women, ethnic communities, garment factory workers and women with disabilities. The project includes an objective of documenting and using learning to influence policy. One of our learning themes is financial barriers to access to RMNH services. In 2015, PSL contracted a research team from Tulane University to explore this issue further. Main findings were that distance to health facilities, transportation and time spent traveling had a particularly strong influence on the decision to access RMNH services in public facilities. This paper summarises some of the findings of this research and of other PSL studies and surveys. It also highlights key complementary global, regional and local evidence, which demonstrates similar outcomes and solutions.

Key findings

- **Travel time is the predominant time cost:** In Cambodia's four northeast provinces travel time accounted for 78.5% of the total time spent accessing services for family planning, 73.1% for antenatal care and 68.4% for abortion care[1]. Time spent traveling is also impacted by geographic or climatic constraints.
- **Transportation is often unavailable and/or unaffordable:** For vulnerable women in the northeast the difficulty identifying affordable transportation in the community leads to either a delay in deciding to seek services at a health facility or in reaching the health facility, or both.
- **Distance and poverty pose a double burden:** Nearly half of the women from the poorest quintile in the northeast provinces sampled live more than 10 kilometres away from the health facilities. Poor women have fewer resources for care and must travel greater distances to reach available services. For every five kilometres from a health facility that a woman lives, the likelihood of delivering in a health facility decreases by 5.5% to 6.7%[2].
- **The transportation support offered by Health Equity Funds[3] (HEFs) is essential but limited:** The poor are expected to initially pay for the transportation and rates used often do not cover the actual cost. This is particularly true for hard-to-reach areas. Additionally, HEF does not address the issue of transportation between the community and the health centre, except for childbirth.
- **Combination of interventions works better to address this complex issue:** An easy one-size-fitsall solution does not exist. Community-based referral mechanisms can provide sustainable and community owned solutions to complement HEF that take into consideration specific constraints and opportunities of the community.

[1] Consultant Report- Financial barriers to accessing RMNH services in four northeast provinces- PSL, August 2016
[2] Consultant Report- Financial barriers to accessing RMNH services in four northeast provinces- PSL, August 2016
[3] HEF are a pro-poor 3rd party health financing mechanism which purchases health services for the identified poor and provides them with reimbursements for transport costs and caretaker food allowances (from Standard benefit package and providers payment mechanism for HEF, MOH 2014)

Understanding the issue

Cambodia made very good progress in improving access to RMNH services in the last decade, translating into significant reductions of the maternal mortality rate from 206 deaths per 100,000 live births in 2010 to 170 in 2014 and neonatal mortality rate from 27 deaths per 1,000 births in 2010 to 18 in 2014[4] . Despite these commendable achievements, geographic disparities remain strong in accessing to quality RMNH services and vulnerable groups such as poor women from remote villages, ethnic communities, adolescents and persons with disability are facing additional barriers. The four northeast Provinces of the country (Kratie, Stung Treng, Ratanak Kiri and Mondul Kiri) are still lagging behind in achieving national RMNH targets due to challenges of poverty, ethnicity, language and geography. The percentage of women delivering in health facilities with a skilled birth attendant in 2014 was 46.3% in Kratie, 51.2% in Ratanak Kiri/Mondul Kiri and 51.1% in Strung Treng/Preah Vihear; these compared to a national average of 83.20%[5]. An important number of interrelated issues influence women's use of health services. They can be summarized under the following four dimensions: affordability, acceptability, geographic accessibility and availability[6]. There are numerous and intricated reasons for under-utilisation of RMNH services such as lack of autonomy, poverty, poor education and information, financial and sociocultural barriers[7]. These challenges disproportionately affect the poor women, resulting in lower utilisation of RMNH services amongst those most in need.

Literature shows that in low-middle income countries, transportation and indirect costs are the most significant obstacles to accessing maternal health care particularly for women from vulnerable populations[8]. In rural Cambodia, the issue of accessibility to affordable transportation, long distance and socio-economic constraints often make it prohibitive for poor women to access RMNH services[9]. Transportation availability, accessibility, direct and indirect travel costs influence access to RMNH in northeast Cambodia as further detailed below.

Transportation availability and accessibility

Poor women from remote areas often do not access RMNH services due to difficulties in identifying appropriate and reliable transportation. **The process to find transportation is often very lengthy in rural Cambodia, which can result in delays in the decision to access care, and timely arrival at the facility in order to receive care[10]**. Difficulties in organizing transportation can motivate women or families to deliver at home, or result in deliveries on the way to the facilities[11]. According to a PSL survey in 2015[12], out of 55% of women in parts of Ratanak Kiri and Mondul Kiri who decided to deliver at home, 39% did so due to lack of transport and 24% due to shortage of funds. Motorbike is by far the main means of transportation used by community members[13]. Most poor households do not own a motorbike, so these women must rent or borrow a motorbike to get to the health facility.

I went [to the Health Centre] three times, I went when my husband could take me but then he became busy with work and could not take me and no one else could take me either…- Mother, aged 19, one baby, Khmer, Kratie14.

The difficulty in arranging transportation is the most important. - Mother, aged 37, three children, Cham, Kratie, ID Poor15.

PSL's 2015 research on financial barriers also demonstrated that **women from the poorest quintile are more likely to borrow/rent vehicles than women from the wealthiest quintile.** The type of transport used to access RMNH services very much depended upon wealth. However, having an ID poor card[16] did not influence the type of transport used. For example, for family planning, over 40% of women in the poorest quintile walked to services (in spite of being farther away on average) in comparison with only 12.8% of women in the wealthiest quintile. The latter group of women were much more likely to use their own vehicle (65.8% versus 24.3%) than women in the poorest quintile. No differences in the mode of transportation were apparent for those with and without an ID Poor Card.

For antenatal care, a similar picture emerged. **Women in the poorest quintile were almost eight times more likely to walk for care (21.2% versus 2.6%) than woman in the wealthiest quintile, who were three times as likely to use their own vehicle (78.0% versus 25.5%).** Women with an ID Poor Card were approximately three times as likely to walk for antenatal care as women without an ID Poor Card (24.8% versus 7.4%).

For delivery care, only a handful of women – 1.7% - walked for treatment. Women from the poorest quintile were less likely to use their own vehicle (18.7% compared 50.4% for wealthiest quintile) and more likely to use a borrowed vehicle (34.1% compared to 4.4% for the wealthiest).

Transportation cost

The main cost we need help with is for transportation to services – Mother, aged 46, six children, Khmer, Stung Treng, non-ID poor[17].

They will pay USD 20 for transportation fee to deliver here. It is very hard to find the transportation fee. - Mother, Aged 31, Lao, Ratanak Kiri, non-ID Poor[18].

[4] Cambodia Demographic and Health Survey (CDHS), 2014
[5] CDHS 2014
[6] Jacobs et al. 2015
[7] Vidler et al.2016
[8] Vidler et al. 2016, Tey &Lai 2013, Keya et al. 2014, Alam et al. 2016
[9] Matsuoka et al. 2010
[10] Keya et al. 2014, Munjanja, Magure &Kandawasvika 2012
[11] Ir et al. 2015
[12] PSL Traditional Birth Attendant-Midwife alliance baseline in Mondul Kiri and Ratanak Kiri, Care Cambodia, 2015.
[13] Community Referral Snapshot Surveys. PSL, February 2015, August 2015 and March 2017
[14] Evaluation of PSL behaviour change communication activities in the northeast of Cambodia. Kim Ozano, June 2016
[15] Consultant Report- financial barriers to accessing RMNH services in four northeast provinces- PSL, August 2016
[16] Card providing eligibility to HEF support for identified poor.
[17] Consultant Report- financial barriers to accessing RMNH services in four northeast provinces- PSL, August 2016
[18] Same as above

The cost of transportation to a referral hospital is a major issue (…) Families need help to pay for transportation to and from the hospital. We prefer to use government health services because we are very poor and the cost of the public hospital is affordable - Mother, aged 27, one child, Kuy, Kratie, non-ID poor[19].

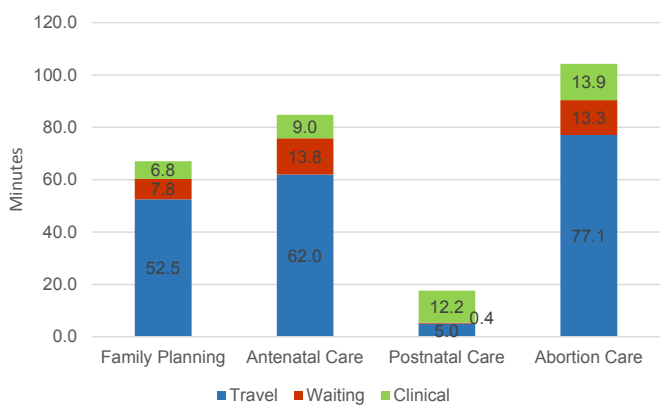
A study to assess the financial and political viability of ambulance services in the Kirivong Operational District[20] showed that the cost of transportation, even in the presence of an ambulance service, seemed to be a barrier, as people in villages needed to get to the health centre to access the ambulance. Prior to arriving at the hospital, 55% went first to the health centre. HEF beneficiaries were more likely to make use of the ambulance service than non-beneficiaries (48% vs. 34%). Overall, 36% of ambulance users had an obstetric condition requiring emergency transport. **"For 115 cases who did arrange their own transport, there were numerous challenges: finding cash (79%), identifying a vehicle to transport the patient (41%), identifying somebody to look after the house or children (23%), and negotiating the price of the transport (6%)."**

In addition to this, recent interviews in Mondul Kiri and Ratanak Kiri[21] with 72 women found that average transportation costs for patients to access services was 6,090 Riels with a maximum cost of 60,000 Riels.

Long distance and traveling time

In addition to transportation costs, time spent traveling is a critical barrier in accessing RMNH services particularly in the northeast provinces of Cambodia. It is also an important contributor to the cost of RMNH services. **Figure 1** illustrates the time cost for women accessing RMNH services. **Travel time is by far the largest component, averaging nearly one hour for several of the RMNH services[22].** In order to access services, patients need to travel, wait and take time off from work.

Figure 1: Time spent accessing RMNH services, by component



PSL survey results demonstrate that of the total of 66.9 minutes spent on average to use family planning services, 52.5 minutes (78.5%) were spent traveling. Similarly, **for antenatal care 62 minutes (73.1%) of a total of 84.8 minutes were spent traveling to and from health services.** Women with ID Poor Cards spent slightly less time using family planning, antenatal care and abortion care but slightly more time on postnatal care.

Overall, women from wealthy backgrounds were able to access services more quickly than women from poorer backgrounds. Poor households tend to be located further away from the RMNH facilities. For example, women from the poorest quintile spent 51.7 minutes on travel to access family planning services compared to 37.1 minutes for wealthiest quintile, 60 minutes versus 46.2 for antenatal care and 106.9 versus 50 minutes for abortion care.

Evidence further demonstrates that in Cambodia, **women who live more than five kilometres away from RMNH facilities with poor geographic terrain, were four times less likely to consult a health professional compared to women who live closer to health care[23].**

Similarly, according to the CDHS (2014), 42.2% of women from Preah Vihear/ Stung Treng, 53.3% from Kratie and 29.8% from Mondul Kiri/ Ratanak Kiri have reported that distance to health facilities is one of the main problems in accessing health care.

Figure 2: Predicted use of health services by distance to health facility (secondary analysis of PSL baseline)

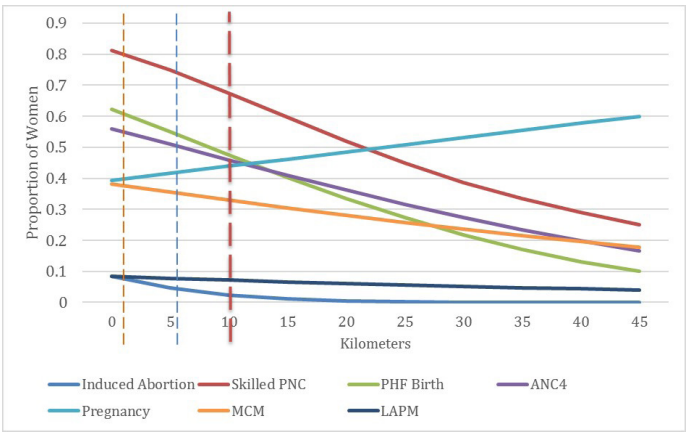


Figure 2[24] demonstrates distance as a key determinant in accessing RMNH services. **Physical access, as measured by the distance to the closest health facility, is an important determinant in several RMNH indicators,** including: four or more antenatal care visits, receiving family planning from a formal sector provider, and delivery in a health care facility. This figure also demonstrates that the further someone is from a health facility the more likely they are to be pregnant, possibly due to less exposure to birth spacing information.

[19] Consultant Report- financial barriers to accessing RMNH services in four northeast provinces- PSL, August 2016
[20] Jacobs and al. 2015
[21] Community Referral Snapshot Survey, PSL, March 2017
[22] Consultant Report- financial barriers to accessing RMNH services in four northeast provinces- PSL, August 2016
[23] Holmes & Kennedy 2010
[24] Consultant Report- financial barriers to accessing RMNH services in four northeast provinces- PSL, August 2016

Distance and poverty pose a double burden for accessing RMNH services for poor women – poor women have both fewer resources for care and must travel greater distances to reach those services. Women in the poorest quintile were found to be more than four kilometers farther on average from the closest facility than women in the wealthiest quintile (10.8 kilometers versus 6.1 kilometers, p<.001)[25], a result which is statistically significant. **Nearly half of women in the poorest quintile (47.7%) live more than 10 kilometers from the closest facility, compared with only 27.9% of women in the wealthiest quintile.** The qualitative research indicated that time spent arranging transport and taking transport was a concern, and the road conditions and remoteness of many households caused difficulties[26].

Poor geographic access and infrastructure

Poor access to transport depends not solely on the presence of vehicles, but also to their appropriateness and reliability for difficult terrain, as well as poor roads[27]. The issue of distance is compounded by geographic obstacles in remote areas such as Ratanak Kiri, Mondul Kiri, Stung Treng and Kratie. **Poor road systems or absence of roads in the remote areas further limit access to essential maternal and neonatal care.** Households living on islands, need to travel by ferry or boat which poses risks for the patient due to the greater travel time, possible stormy weather, and the discomfort of the ride[28]. Poor infrastructure and geographic access also increases the cost of transport arrangements[29]. In some of the northeast communities in Cambodia, travel during rainy season is impossible due to flooding.

PSL's Community Referral System Snapshot Survey recorded the time and distance patients travelled from home to access services at the health centre. **The maximum distance and duration of transportation between the community and the health facility was higher during the raining season survey (Second survey, August 2015) with 75 kilometres and 420 minutes respectively.** The average distance and time to reach health facility was 10 kilometres and 34 minutes during the third survey in March 2017 survey.

Table 1: Distance and duration of travelling from their home to the health facilities[30]

	Distance (km)			Duration (min)		
	1st Survey	2nd Survey	3rd Survey	1st Survey	2nd Survey	3rd Survey
Minimum	0.1	0.5	0.2	2	2	1
Maximum	52.0	75	55	180	420	210
Mean	6.7	6.8	10	24	25	34
Median	4.0	3	7	15	15	25

Note: PSL snapshot surveys are health centres' exit surveys and results are therefore not representative of the population of targeted provinces.

Transportation is by ferry and motorbike. When the waves come when it is windy I am afraid as I am scared of falling out of the boat or the boat sinking from the water coming in. - Women, age 19, two months old baby, Khmer, Kratie[31].

Intra-household constraints and opportunity costs

Accessing RMNH services is strongly influenced by one's socio-economic status. High opportunity costs represent critical barriers for accessing maternal and neonatal health. Common opportunity costs include not being home to look after children, houses, crops, or livestock, which can result in lost income and productivity[32]. Other direct costs that influence utilization of services include cost of transport, food, and accommodation for those accompanying the patient (as well as their own time commitments) and return transport costs. In addition to this, most poor women rely on male family members, who are busy, or vehicle owners in the community for transport for which they often need to pay. Consequently, many women tend to miss their appointments or are unable to get to the facility, even in cases of complications[33].

Current interventions and good practices

Several interventions have been implemented in Cambodia to address the challenges posed by transportation and distance to health facilities. Evidence to demonstrate the effectiveness in the northeast is not available for all interventions. The two main health financing schemes operating in Cambodia are the government managed Health Equity Fund (HEF) and the KfW[34] supported voucher scheme. Health financing schemes such as the HEF and vouchers are mostly addressing the issue of cost while some community-based solutions are addressing availability and accessibility of transport. Distance to facilities is mostly tackled by the construction of new health centre close to remote villages, outreach from health centre staff, and maternity waiting homes and extended rooms.

Health Equity Funds

The HEF has been progressively introduced by the Cambodian Government following the development of a National Social Protection Strategy for the Poor and Vulnerable in 2000. HEF is a pro-poor 3rd party health financing mechanism which purchases health services for the identified poor and provides them with reimbursements for transport costs and caretaker food allowances[35]. The HEF package includes medical and non-medical (transportation, food and funeral costs) benefits. The HEF is now available in all provinces and health facilities. The management of HEF was transferred from third party HEF operators to the Ministry of Health in 2016. A patient having an ID Poor card or a Priority Access Card can get travel costs reimbursed based on the following rates (rural areas); 500 Riels/kilometre with good road, 800 riels/kilometre with bad road and 1,000 Riels/kilometre by water. In addition, emergency transportation contracts are organised by health centres for emergency referrals and ID Poor patients are not charged for ambulance fees. Transportation between the community and health centre is only reimbursed for delivery, attempted delivery and post abortion care[36].

[25] Consultant Report- financial barriers to accessing RMNH services in four northeast provinces- PSL, August 2016
[26] Same as above
[27] Holmes & Kennedy 2010, Alam et al. 2016
[28] Ozano 2016
[29] Riaz, Zaidi & Khowaja 2015
[30] PSL Community Referral Snapshot Surveys in February and August 2015, and March 2017 (Respondents N1: 138, N2: 137, N3:162)
[31] Evaluation of PSL behaviour change communication activities in the northeast of Cambodia. Kim Ozano, June 2016
[32] Jacobs et al. 2015, Holmes& Kennedy 2010, Ir et al. 2010
[33] Ozano 2016
[34] Kreditanstalt für Wiederaufbau - German government-owned development bank
[35] Standard benefit package and providers payment mechanism for HEF, MOH 2014
[36] Standard benefit package and provider payment mechanism for HEF, MOH 2014

I have heard of the ID Poor Card but I don't have one. Someone would get it by being interviewed and having a photo taken. I have never heard about a way to get health services for free at the referral hospital if you cannot pay. I do not know if ID Poor/HEF can cover the cost of transportation to the services. The money for transportation, food and stay there is the cost we need. I use the government services because we are poor and need help to pay. - Mother, aged 29, two children, Khmer, Stung Treng, non-ID Poor[37].

The HEF contributes to improving access to RMNH services for the poorest groups, but the barrier of transportation costs remains. **The HEF does not cover the initial transportation costs to RMNH services up front, which discourages services utilization, even if clients are aware that costs will be reimbursed.** In addition, HEF rates often do not cover the actual cost of transport, especially in the northeast provinces. Evidence shows that the HEF beneficiaries still need to borrow money that is often paid back with interest to compensate for lost income for the family as well as to cover transportation costs[38].

From July 2016 – February 2017, in the context of transition of HEF management to health facilities, the reimbursement of non-medical benefits (transport, food and funeral benefit) were frozen. Early evidence suggests this resulted in a decrease of services utilisation from ID-Poor card holders. Anecdotal evidence collected by Health Equity and Quality Improvement Project (H-EQIP) in early 2017 suggested **a drop in the number of HEF patients and an increase in exemptions as well as user fee, during the months when non-medical allowances and new post-ID Poor[39] were unavailable.** Similarly, in the latest PSL Community Referral Systems Snapshot Survey in the four northeast provinces (March 2017), the percentage of respondents mentioning the HEF as a source of expenditure for RMNH services dropped to 6% compared to 10% in the previous survey in August 2015.

This demonstrates the importance of the HEF and the need for the HEF to continue covering non-medical benefits.

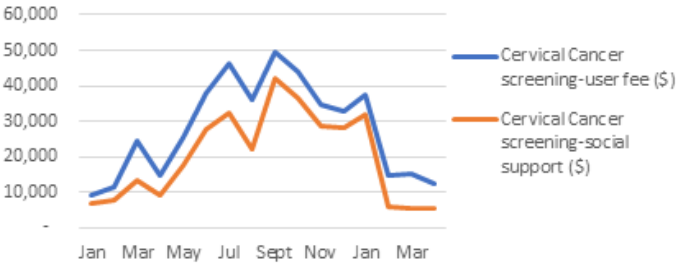
Vouchers

The KfW Voucher project implemented by Action for Health (AFH) and EPOS Health Management[40] started in 2010. During its first phase (2010-2013), the programme focused on safe motherhood, safe abortion and family planning services. The expansion phase (2014-2017) supported the implementation of vouchers in six provinces (Kompong Thom, Kompong Speu, Kampot, Kep, Svay Rieng and Prey Veng) and progressively shifted the focus to some services not covered under the HEF. Today existing vouchers cover six services including child growth, long term and permanent contraception methods, cataract surgery, safe abortion, cervical cancer, and people with disability. Persons eligible for the scheme are ID Poor card holders with the exception of People with Reduced Mobility (PRM) who are supported regardless of their socio-economic status, and screening for cervical cancer, which all women are eligible to receive. Vouchers cover service fees and social support (transportation and food).

As for transport, the voucher scheme includes a transport reimbursement option where the voucher beneficiaries can exchange their voucher for cash using a lumpsum calculation (15,000 riel for transport from community to health centre and 30,000 Riels from community/health centre to referral hospital). The social support for transportation and food is only available for ID Poor card holders, except PRM. A specific schedule covers transportation costs is available for persons with disability.

Voucher promoters based in the communities and linked to the Village Health Support Groups (VHSG) provide information on the vouchers and distribute them to eligible households. They are supported by Operational District based voucher agents and a provincial coordinator.

Figure 3: Association between user fee (service utilisation) and social support (Jan 2016- Apr 2017)



At the end of 2017, the KfW voucher scheme will be merged with the HEF. **Support for transportation from the community to the health centre/hospital is currently available for selected services, but will likely be cut as well as the current transportation-specific support scheme for persons with disability.** The program documented a strong correlation between the ceasing of social support payments (transportation and food) to non-poor eligible clients and a decrease in service utilization for cervical cancer screening in February 2017. (see Figure 3)

Community-based solutions

Buddhism for Health (BfH) community managed HEF

BfH has introduced Community-Managed Health Equity Funds (CMHEF) to complement the formal HEF system by considering some additional benefits such as the important element of transportation between the community and the health centre. **CMHEF is a self-funded and sustained social structure established and operating at the catchment area of the local health centre.** The committee gathers any community members willing to take part in the mechanism.

[37] Consultant Report- financial barriers to accessing RMNH services in four northeast provinces- PSL, August 2016
[38] Annear 2010
[39] Post ID Poor identification provides opportunity for poor household not having an ID poor card to receive a priority access card valid until the next ID Poor Round that can be used to access services at referral hospitals and health centres
[40] EPOS Health Management is an independent worldwide provider of health sector consulting services.

Members generally include Commune Councils, VHSG, Health Centre Management Committees, local authorities, monks and other religious leaders. The community self-finances its activities through charity boxes, annual contributions and fund-raising events. Most of the activities are implemented in collaboration with pagodas in the community. One leading pagoda is identified and is in charge of the management of the fund. A contract with the health centre defines the modality of the funds, what is reimbursed, to whom and at what rate. Transport is reimbursed to the patients upon arrival at the health centre. In very remote areas, or where there are specific constraints such as islands or flooded areas, a contract may be established with a vehicle/boat owner. For sustainability, a district facilitation team is set up and trained with the role of monitoring all CMHEFs within the district.

CMHEF beneficiaries are typically the elderly, persons with disability, poorest families, and women heads of household, as well as pregnant women. The CMHEF committee identifies eligible households. Some might have ID-Poor card and some might not. The list of eligible households is provided to the lead pagoda for endorsement.

CMHEF have proven to be very effective. **Since establishment of the first CMHEFs in 2004, they have proven to be stable structures that remained active during periods without external funding and have geographically expanded to new areas**[41]**.** The number of overall reimbursements is increasing and some committees have been successful in generating external resources. Introducing the CMHEFs has resulted in higher health centre utilization rate by HEF beneficiaries in CMHEF implementation areas. For example, **health centre annual OPD case per capita was 0.84 in CMHEF target areas compared to 0.53 nationwide,** based on data collected between October 2016 and March 2017.

CMHEF also created a governance structure with broad community representation and engagement that is active in representing the needs of their communities through participation at meetings of Health Centre Management Committees and Provincial and District Health Financing Steering Committees.

CARE Village Saving and Loans Associations (VSLA)

Building on global success, CARE introduced VSLA in Mondul Kiri and Ratanak Kiri under the PSL project. The VSLA is a community savings model that was developed by CARE and has been implemented in 61 countries, with over six million active participants worldwide—most of whom are women. **This model is a form of community-led saving which is self-managed and self-capitalised through simple procedures.** Members agree to pay a set amount each week to attend the group (called the "social fund") and contribute savings regularly for a period of nine months. The funds form a pool of money from which members can take out small loans at an agreed rate of interest. At the end of the cycle the final total is divided between members in proportion to how much each contributed (including additional interest). Generally, the social fund can be accessed at any point during the cycle in case of emergencies, including health. The VSLA model gives members a simple, safe and transparent way to manage their finances, offering the services of savings, loans, basic insurance through the social fund, and a social network. This complements other CARE development activities, as access to loans improve the options available to those who have received livelihoods training, while the regular meetings provide a forum for VHSG members to conduct health awareness raising sessions.

By the end of implementation in Mondul Kiri and Ratanak Kiri, there were 90 groups, of whom 95% of members were ethnic minorities. **Overall, 25% (1038) of total loans were taken for health purposes,** with 58% for business, 2% for education, and 15% for other basic needs. **The social fund was accessed regularly for RMNH, particularly delivery (475 times in total).** In November 2016, the 34 VSLA groups in Mondul kiri and the 56 VSLA groups in Ratanak Kiri were handed to over to the Commune Councils who play an important role in motivating the community to continue this work.

Traditional Birth Attendant (TBA)- Midwife alliance

The TBA-Midwives alliance was also initiated by CARE in April 2016 under PSL in Mondul Kiri and Ratanak Kiri in order to increase community referrals and provide transport vouchers to women from remote communities. The goal is to empower TBAs to support pregnant women in the communities to utilize services at the health centres and increase rates of facility delivery. The development of training tools for TBAs started in November 2015, followed by a baseline assessment in December and training and community sensitization. TBAs from selected villages were targeted. A total of 70 TBAs were trained in 55 villages representing the two provinces. **Between April 2016 and March 2017, 391 pregnant women were referred by TBAs to use services at health centres. Of all deliveries at target health centres, 46% were women referred by TBAs.** TBA meetings are conducted at health centres or communes led by CARE and health centre staff and attended by the health centre's chief. Health centre midwives meet pregnant women and postpartum women during supervision visits, further building relationships between health staff and underserved populations. Not only does this serve to strengthen the link between health centre staff and communities, but midwives also provide antenatal and postnatal checks on these visits. During a PSL annual review visit in February 2017, beneficiaries and TBAs recommended to increase the reimbursement rate for transport (aligned to the HEF rates) as they complained it does not match with actual costs due to the difficult geography in target provinces.

Maternity waiting home and extended rooms

Maternity waiting homes and extended rooms have been introduced by the MoH to improve access to health facilities by women from remote communities when they approach the time of delivery. The waiting home at referral hospital level and extended room at the health centre level are places where the women from remote communities can come to receive midwife support and care while waiting for labour

[41] Buddhism for Health- Community Managed Health Equity Funds; 2017

to start as well as have a location where they can recover from delivery and receive appropriate postnatal care before discharge. **These are particularly important to address the needs of distant communities where women are at risk of facing greater challenges in finding transportation means if they wait until labour starts.** In these areas, transportation means may not be available at night or road conditions limit traveling in a reasonable time. The advantages of waiting homes/extended rooms are not only to increase access to institutional deliveries for the poor, but it also provides an opportunity for health promotion for the waiting mothers on infant feeding, immunisation, family planning and importance of postnatal care.

Save the Children supported the direct construction and refurbishment of 14 extended rooms in health centres in Kratie and Stung Treng. **As of February 2017, 1,605 women have used the rooms, while overall nearly 25% more women have been using health facilities to deliver their babies in target health centres.**

Conditional cash transfers were explored as a means of enabling target households to receive cash disbursements based on meeting set conditions. The conditions were in line with recommended maternal and newborn health preventative services including antenatal care, safe delivery in a health facility with a skilled birth attendant and postnatal care. A number of options were explored to enable appropriate accountability and transparency for payments. Challenges encountered that prevented conditional cash transfers from starting included the reality that opportunity costs still out-weighed the proposed payments for the conditions and that Save the Children would spend more in operational costs than actual payments to households.

Recommendations

A one-fit-for all approach may not be the appropriate solution to overcome multiple direct and indirect barriers related to accessing RMNH services. Transportation remains an important barrier for women in the northeast of Cambodia to access health facilities. Existing good practices give options for consideration.

1. Maintain and further strengthen transportation support under the HEF

The recent interruption of non-medical benefits to HEF beneficiaries impacted overall utilisation rate of health services by HEF beneficiaries. Similarly, the re-introduction of these benefits in March 2017 has led to increased of utilisation rates. This demonstrates how crucial it is to maintain and even expand transportation support in the updated HEF benefit packages.

Some aspects of the current voucher scheme should also be maintained– for example lumpsum reimbursement of transportation between community and health centre for selected services in addition to deliveries, and transport vouchers for vulnerable groups such as persons with disability.

The HEF should target distant households with greater subsidies. Paying for transportation does not take into account the greater time spent on travel, and hence the larger productivity losses for more remote households[42].

In addition, and especially for areas with important geographic constraints, the rate of reimbursement for transportation should be regularly reassessed. An annual survey should be completed to determine the actual traveling distance from each facility to each village that lies within its catchment area and travel costs. One limitation is that households far from the village centre may not receive adequate value of the reimbursement to cover the real cost of the journey, even if the cost covers the route from the village centre. This is even more important for communities that reside in the hilly northeast provinces where villages are spread out and some of the households are located on islands. Rates should consider different scattered locations of the households in villages and geographical challenges[43].

2. Extend community-based initiatives such as the CMHEF and VSLA to complement the HEF

A number of community-based initiatives in Cambodia complement the HEF and help increase access to services. They can help communities overcome access barriers to health services by defining, targeting, and funding additional benefits for poor and vulnerable people or can provide a safety net for other community members who may be near-poor and vulnerable to adverse events. These community-based interventions also promote community participation and ownership even if they require substantial set up support. Some community-based health insurance experiences globally have also faced low enrolment, adverse selection or limited renewal rates.

In the Cambodian context where the HEF systems are already functioning and available in all parts of the country, another option would be to transfer the management of the transportation component of the HEF to community-based organisations.

In communities facing particular constraints and that cannot be accessed by health facility ambulances (poor road conditions, flooded areas, islands), a transportation scheme could be established at the community level. This scheme could be operated with the support of the local community, for example providing appropriate vehicles which could serve as ambulances stationed in the community. This initiative could address the needs of transportation from the community to health facility during emergency obstetric complications and delivery and prevent delays in reaching RMNH services more broadly. The choice of the mode of transport would depend on existing road infrastructure, availability, estimated distance, socio-cultural factors such as privacy, costs and demand. The community transportation system could be managed by a transport management committee. Resources could be mobilised through community-based savings and loan schemes. The revenue generation and contributions from the community would ensure financial sustainability[44].

[42] Consultant Report- financial barriers to accessing RMNH services in four northeast provinces- PSL, August 2016
[43] Noy &Saing (GIZ) 2012, Fernandes Antunes (GIZ) 2014
[44] Mian et al. 2015, Atuoye et al. 2015, Bohren et al. 2014

3. Maintain and promote the use of maternity waiting homes in the northeast

Pregnant women living in rural areas with poor geographical access could use maternity waiting homes while awaiting active labour. The following factors should be considered regarding management and establishment of maternity waiting homes: culturally appropriate facilities such as providing space for someone who accompanies the woman; socio-economic and geographic risks factors; and clear guidelines and protocols for referral including transport in case of obstetric or neonatal complications. The promotion and information of waiting homes can be provided through community groups or meetings with village leaders, religious leaders and other local groups[45]. Factors influencing decisions to use the maternity waiting homes should also be considered such as the influence of family including their commitments, the cost of staying in the waiting home and the availability of information on the waiting home[46].

4. Include antenatal care and postnatal care in the provision of integrated outreach services

Outreach services is an effective option to enhance access to health professionals in rural Cambodia[47]. In order to reduce the gap in women from remote communities accessing quality antenatal care and postnatal care services, resources could be mobilised at health centre level to ensure that midwives participate in existing outreach services. Postnatal care attendance in particular remains very low and many women only go to the health facilities after delivery if a health emergency arises or for vaccinations[48]. Outreach services from the health centre teams could also link with existing community structures such as the Commune Committee for Women and Children, VHSG, and other local authorities, such as Commune Councils. A special focus needs to be made when organising outreach services for ethic minority groups, such as providing health care services that suit the village's local culture and tradition, while incorporating essential health promotion and education messages as a measure to increase their acceptability of basic health care services[49].

Conclusion

Difficulties associated with transportation are numerous and remain barriers for women from vulnerable communities to access RMNH services particularly in the northeast provinces of Cambodia. **Initiatives that have proven to be effective should be maintained or expanded in conjunction with the HEF, with special consideration given to communities living in remote and difficult to access areas.**

[45] Holmes and Kennedy 2010
[46] Kyokan et al. 2016
[47] De Roodenbeke et al. 2010
[48] Ozano 2016
[49] Outreach Management guidelines, MoH 2013

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