Ex post evaluation – Cambodia

Sector: 13020 Promotion of reproductive health
Programme/Project: Social security in the event of illness (vouchers for reproductive healthcare services), BMZ no. 2007 66 048 *
Implementing agency: Ministry of Health

Ex post evaluation report: 2017

		Planned	Actual
Investment costs (total)	EUR million	2.6	2.6
Counterpart contribution	EUR million	0.1	0.1
Financing	EUR million	2.5	2.5
of which BMZ budget funds	EUR million	2.5	2.5

*) Random sample 2016

Summary: The project comprised the development of a voucher system, during which disadvantaged women in the three provinces of Kampong Thom, Kampot and Prey Veng received vouchers for essential healthcare services related to pregnancy, birth and family planning which they were able to redeem at accredited healthcare facilities. In addition to increasing demand for reproductive healthcare services, a performance-oriented financing of healthcare facilities (i.e. cost reimbursement after services are rendered) on the supply side aimed to provide an incentive for the facilities to offer patient-oriented, quality-assured and efficient services.

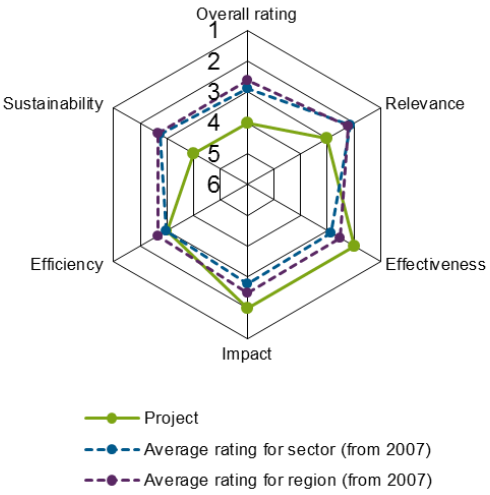
Development objectives: The project objective was to help improve access to high-quality reproductive healthcare services via a voucher system and to encourage disadvantaged women in the project provinces to make use of these services. At the same time, the aim was also to prepare insurance systems by reinforcing the key elements of a health insurance system. The improvement of the reproductive health of women in the project provinces is defined as the development objective in the ex post evaluation phase.

Target group: Poor, disadvantaged women in the project provinces.

Overall rating: Rating 4

Rationale: The project has successfully helped to increase the use of reproductive services in the project regions (during the project, 84,000 services were performed). Rapid developments in the healthcare sector, including the expansion of a national social security system for the poor, and a very poor synthesis of the voucher project with the national healthcare system, meant that the planned objective to offer a sustainable contribution towards developing a health insurance system was not achieved. Since few elements will remain once the voucher project is concluded in 2017 and the level of long-term impact is uncertain, the degree of sustainability achieved is evaluated as insufficient.

Highlights: Although the promotion of sustainable structures was defined as a fixed development objective, the project was not designed to be run as a parallel system without sufficient synthesis with national structures which were already in conception. Current discussions on establishing the success factors of healthcare promotion in the community and more firmly anchoring transport cost reimbursement in the national insurance system are very positive.



Rating according to DAC criteria

Overall rating: Rating 4

Relevance

In 2009, at the time of project appraisal (PA), considerable progress had already been made in reproductive health in Cambodia: according to estimates, the maternal mortality rate (per 100,000 live births) had dropped from 1,200 in 1990 to 320 in 2005.[1] As voucher distribution began at the start of 2011, further improvements had been achieved, in particular by providing intensive training for midwives and through the introduction of a nationwide midwifery incentive scheme, a performance-based financing system that offered midwives financial incentives (USD 15) for each birth supervised in a healthcare facility.[2] Some reproductive health indicators were therefore relatively good already at the start of the project, and the potential for impact was limited. As a result, over 85% of pregnant women in the three regions covered by the project underwent medical check-ups performed by professional personnel. Yet there were still significant bottlenecks when it came to accessing and making use of high-quality services. In addition, the project provinces were below the national average for most reproductive health indicators. In 2010, only 36% of births in Kampong Thom and 42% in Kampot took place in a healthcare facility, compared with a national average of 54%.[3] The unregulated private sector represented an enormous challenge with regard to pregnancy terminations, which are frequently performed by unqualified providers. The quality of public healthcare facilities was on the whole insufficient and many women preferred to trust private facilities. Although the poorest ought to have been exempt from paying fees, this was often not the case in practice and many healthcare facilities demanded additional payments.

As part of the project, vouchers were distributed to women deemed poor in accordance with national definitions ("ID-poor") which entitled them to free services related to pregnancy, birth and family planning.[4] Moreover, all the women were entitled to have a pregnancy termination performed at no cost, regardless of their poverty status. The method applied – using vouchers to increase demand and using accreditation processes to simultaneously improve the range of services offered – is fundamentally suited to increasing the quality and efficiency of services and their use. Depending on how it is organized, this approach can also contribute towards developing sustainable social security structures, such as systems for verification and settling claims.

However, the relevance of the voucher project in Cambodia is limited by the following factors:

- At the time of PA, the Health Equity Fund (HEF), which covered the "ID-poor" category, already existed as a social security system. Back then, the HEF covered just 25% of the country's healthcare facilities, and the FC project focused mainly on regions where the HEF had either not been rolled out or was limited to hospitals. It is unclear as to what extent the nationwide expansion of the HEF, which took place until 2015, to cover all healthcare facilities as part of a national system within Cambodia's social security for the poor, could have been foreseen at the time of PA. In any event, however, the voucher system was eclipsed as the sector experienced rapid development. Since the HEF covers the same target group and, to a large extent, the same services, special agreements were made for the project regions over the course of the HEF expansion in order to avoid duplications.
- To implement the project, a Voucher Management Agency (VMA), comprising international consultants and a local NGO was set up in complete parallel to the state structures. This seems reasonable in terms of effectiveness given that state capacities are limited. However, the potential to create sustainable structures for a social security system was already present with this construct right at the start.

---

[1] Trends in maternal mortality: 1990 to 2013. Estimates by WHO, UNICEF, UNFPA, The World Bank and the United Nations Population Division.

[2] Ir, P. et al. (2015): Boosting facility deliveries with results-based financing: a mixed-methods evaluation of the government midwifery incentive scheme in Cambodia.

[3] Cambodian Demographic and Health Survey 2010.

[4] The "Identification of Poor Households Programme" from the Ministry of Planning is conducted with the support of GIZ and others.

– All the parties involved have described the general and specific coordination in the healthcare sector between Financial Cooperation (FC) and Technical Cooperation (TC) as poor, at least for the initial phase of the project. During PA, the health sector was influenced by small, individual projects (including voucher projects for reproductive health and other donors in other provinces) and, at least in hindsight, the FC project was like another pilot scheme in an already fragmented healthcare system.

The healthcare sector and reproductive healthcare in particular played a significant role within Cambodia's government during the project appraisal stage and still do today. The project's objective to improve the health of mothers and children meant that it was in harmony with the millennium development goals 4 (reduce child mortality) and 5 (improve maternal health) to which the German Federal Government had committed itself.

Relevance rating: 3

Effectiveness

The project objective consisted of two parts: Firstly it aimed to improve access to high-quality reproduction healthcare services for disadvantaged women in the project provinces and to encourage these women to make use of the services. Secondly it aimed to prepare insurance systems by reinforcing the key elements of a health insurance system. The achievement of project goal indicators in the provinces involved are shown in the table below. The project was implemented in 9 of 14 "operational districts" in the provinces.

Indicator[a]	2005[b]	Target value[c]	2010 (before start)	2014 (after completion)
(1) Percentage of pregnant women who made use of medical check-ups performed by specialists[d, e]	KT: 59% PV: 61% K : 69% Nat av: 69%	Annual increase of 5% (comp. 2005)	KT: 85% PV: 92% K : 86% Nat av: 89%	KT: 96% PV: 99% K : 94% Nat av: 95%
(2a) Percentage of births supervised by specialists[d, e]	KT: 25% PV: 28% K : 41% Nat av: 44%	Annual increase of 5% (comp. 2005)	KT: 48% PV: 59% K : 67% Nat av: 71%	KT: 80% PV: 98% K : 91% Nat av: 89%
(2b) Percentage of births that take place in a healthcare facility[d]	KT: 10% PV: 13% K : 18% Nat av: 22%	Not determined as an indicator at PA	KT: 36% PV: 41% K : 42% Nat av: 54%	KT: 74% PV: 90% K : 81% Nat av: 83%
(3) Percentage of women who use longer-term contraceptive methods[f]	KT: 1.2% PV: 1.5% K : 1.1% Nat av: 2.0%	Annual increase of 1% (comp. 2005)[h]	KT: 6.1% PV: 2.6% K : 5.4% Nat av: 3.5%	KT: 8.9% PV: 6.4% K : 7.9% Nat av: 6.6%

(4) Percentage of women who took advantage of post-natal care[g]	KT: 34% PV: 44% K : 63% Nat av: 70%	Not determined as an indicator at PA	KT: 67% PV: 58% K : 83% Nat av: 74%	KT: 100% PV: 100% K : 93% Nat av: 91%

[a] Values taken from Demographic and Health Surveys (DHS) from 2005, 2010 and 2014.

[b] KT: Kampong Thom; PV: Prey Veng; K: Kampot (includes the Kep province which was part of Kampot province until 2008).

[c] The target values were defined based on DHS 2005, since there were no current data available at the time of the inspection (2009).

[d] Relates to women who had a live birth in the last 5 years.

[e] Specialists comprise doctors, nurses and midwives.

[f] Includes the FC-supported methods such as IUDs and implants, and refers to married women.

[g] Does not contain data on the type of treatment.

[h] It was likely the case at project appraisal that an annual increase by 1 percentage point was meant.

As part of the project 88,432 vouchers were distributed and 83,978 coupons redeemed (January 2011 to July 2013).[5] Up until the end of the first phases evaluated here, 131 healthcare facilities were registered for the voucher project, sometimes based on national quality guidelines and sometimes based on project-specific qualification criteria. The Cambodian Demographic and Health Surveys confirm the significant progress made in reproductive healthcare in Cambodia over the last 10 years. During project implementation, the percentage of births supervised by specialists, the percentage of births that took place in a healthcare facility and the use of long-term contraception all increased. The positive trend could be seen across the country and it is actually difficult to assess the added value of the project due to the sheer number of initiatives. Nevertheless, some studies record the effectiveness of the vouchers. The quasi-experimental analyses carried out by the Population Council show that the rate at which reproductive healthcare services in regions with vouchers were used rose more sharply than in comparison regions without vouchers.[6] Factors in this success were the educational work carried out by "Voucher Promoters" in the communities and financial incentives for women in the form of transport cost reimbursements and food. Moreover, the vouchers help poor women to feel empowered to make use of services and be seen as valuable customers in the healthcare facilities. The first project objective was thus achieved.

The use of long-term contraception, such as intrauterine devices or implants, has increased over the last few years. However women still largely prefer to use short-term contraception, since these are available on the market or distributed in the villages, and women also fear the side-effects of long-term contraceptive methods.

Approximately 8,000 pregnancy terminations were financed as part of the project, of which some would certainly have been performed by unqualified service providers or through self-medication had it not been for the voucher project. However, the percentage of women nationwide who had no professional help during their last pregnancy termination remains constant at 40% and a growing number of women report to have already undergone several terminations (1.4% in 2010 and 3.6% in 2014). This shows clearly that there is an urgent need for further education regarding family planning and better access to contraceptives.

In the healthcare facilities, the vouchers have contributed towards an increase in revenue. According to national regulations, approximately 60% of the revenues are put towards motivating personnel by raising wages, and approximately 40% is used to improve the quality of the services offered. The latter mostly includes making improvements to infrastructure and purchasing medical products, particularly contraceptives. The voucher project and other organizations also provided training for midwives. During the first phase and at the time of evaluation, some facilities were unable to offer long-term contraceptives due to a

5 One voucher comprises several coupons For example, the voucher for "Safe birth" comprises coupons for four antenatal check-ups and two postnatal check-ups, coupons for a normal birth, a complicated birth in a hospital, a complicated birth in the healthcare facility, a caesarian section and a miscarriage. It is therefore not possible to use all of the coupons.

6 See, for example, "Increasing uptake of long-acting reversible contraceptives in Cambodia through a voucher program: Evidence from a difference-in-differences analysis" von A. Bajracharya et al. (2016)."

lack of trained midwives or procurement problems. Overall, the vouchers helped to motivate staff and introduce structural improvements. The extent to which the quality of the services has improved cannot be established definitively.

The explicit objective to make a sustainable contribution towards developing a social security system through the voucher project was not achieved. The Ministry of Health resolved to adopt the HEF as its national system in order to provide social security for the poor and rolled out the programme independently of the voucher project. A new state-run agency will be set up to provide key elements such as accounting and certification, and the VMA will be dissolved with the conclusion of the voucher project at the end of 2017.

Effectiveness rating: 2

Efficiency

The expansion of the HEF and the introduction of almost identical voucher systems from other donors in sections of the original target regions resulted in project delays at the start since the geographical orientation had to be altered. The costs for consulting services accounted for 61% of the total costs during the initial phase (EUR 1.5 million of EUR 2.45 million) and were therefore considerably higher than estimated at PA. This was due to the fact that, contrary to the plan, a public tender was not issued for the VMA. Instead, a consortium of international consultants and a local NGO were contracted. With the central administration in Phnom Penh, the offices in the provinces and Voucher Promoters responsible for distributing the vouchers and providing education, the project required a relatively high number of personnel overall. The mid-term review conducted in the subsequent phases estimated that the consulting costs would fall to around a third. Although higher costs are to be expected at the beginning in order to set up the VMA, the administrative costs are very high, particularly when one considers that the VMA will be disbanded fully in 2017. If the total costs are compared with the services performed, each treatment costs EUR 30. Approximately 70% of the services performed were ante- and postnatal check-ups and family planning consultations, for which between USD 1.50 and USD 2 were reimbursed (in some cases, an additional USD 1.25 was reimbursed for transport costs).

After initial deficits in the design of the project (e.g. Voucher Promoters received financial incentives for distributing the vouchers, instead of based on whether the vouchers were used), implementation proved to be efficient. Receivables were settled regularly and on time, and the management information system allowed the vouchers that were distributed and used to be tracked precisely. A number of changes were made to increase efficiency over the course of the project. In addition to revising the incentive scheme, long-term contraceptives were also offered, for example, to all women who underwent a pregnancy termination in the healthcare facilities, and follow-up surveys were conducted with users by telephone.

The pay-for-performance approach has increased efficiency by helping to raise the motivation of healthcare personnel. By the end of the first phase, around 75% of the healthcare facilities taking part in the project received between USD 50 and USD 300 each month via the voucher system. Since the reimbursements offered as part of the voucher system tended to be higher than the HEF reimbursements (and considerably higher than the amounts charged to self-paying patients) and given that voucher use also rose, it can be assumed that the vouchers resulted in additional revenue for the healthcare facilities. The 18 healthcare facilities that were visited during the evaluation stated they had generated between 25% and 85% of their revenue thanks to the vouchers. However, this figure is mainly accounted for by the fact that vouchers for cervical cancer check-ups were made available to all women during the second phase and that there were also payment issues with HEF during the transition phase over to the new, national healthcare strategy.

In addition to increasing voucher use, financial incentives for women also raised the efficiency of the referral system, since women increasingly turned to the healthcare facilities for help with the birth of a child than to hospitals.

With the exception of the voucher for safe pregnancy terminations, which is available to all women, only those categorized as "ID-poor" were entitled to receive the vouchers during the first phase. Focusing on the poorest women increases efficiency in the sense that resources are employed for those women who are set to benefit the most from healthcare. One problem with the Cambodian poverty line, however, is

that it is set extremely low – in the project provinces, between 14% and 21% of people are at present considered poor. The "near-poor" are often unable to pay for healthcare services and at the same time receive no financial support to do so. Given that the HEF has been expanded nationally to provide social security for the poor, it would have been more efficient to have focused on the "near-poor" (which happened to some extent in the subsequent phases). As part of the project, however, the "near-poor" benefit from the improvements made to the infrastructure of healthcare facilities and cross-subsidization. Overall, in terms of efficiency, there is a trade-off between high costs for setting up the VMA and a good level of efficiency during implementation.

Efficiency rating: 3

Impact

The improvement of the reproductive health of women in the project provinces is defined as the development objective in the ex post evaluation.[7]

Indicator	2005	2010	2014
(1) Maternal mortality (per 100,000 live births)	472	206	170
(2) Neonatal mortality (per 1,000 live births) [a]	28	27	18
(3) Infant mortality rate (per 1,000 live births) [b]	66	45	28
(4) Fertility rate	3.4	3.0	2.7

Source: Demographic Health Surveys.

[a] Mortality of live births within the first 4 weeks.

[b] Mortality of live births within the first 12 months.

The indicators confirm the remarkable nationwide progress made in reproductive health. With a downturn of 86% between 1990 and 2014, Cambodia is one of the countries to have made the most progress in reducing maternal mortality in the world. The provincial health departments in the project regions credit the voucher project with contributing significantly towards reducing mortality; it is not possible, however, to quantify the impact of the vouchers and to isolate them from other measures. Given that the vouchers caused an increase in the use of reproductive services, it is plausible that they contributed towards improving health.

Impact rating: 2

Sustainability

The project is currently implemented in its second and third phase. In these subsequent phases, the services covered by the project were extended geographically to other provinces and the concept was also expanded to other services (vouchers for cervical cancer and cataract check-ups and treatment, children's health and for persons with limited mobility). With the end of the voucher project in 2017, the structures created on a national and regional level, such as the VMA and the regional structures for voucher distribution, educational work and monitoring, will be completely disbanded. The Ministry of Health is forming a Payment and Certification Agency (PCA) for the HEF, which will take on the verification and processing of the accounts receivable. The voucher project therefore did not create sustainable structures. It is possible that individual employees of the VMA will be employed in the PCA at a later date and that they will continue to use the knowledge they have acquired during the voucher project. This is not certain, however. In

7 The development objective defined at project appraisal was to improve access to affordable, quality-assured healthcare services for the poor and disadvantaged of the population. However, this objective describes the output and not the impact of the project.

hindsight, if the voucher system had been connected to national structures from the start, this could have possibly formed synergies.

As part of the national expansion of the HEF, the services covered by the vouchers during the first phase (birth, ante- and postnatal check-ups) had already been taken over by the HEF in 2015. In future, the FC (currently at EUR 12 million) will participate in the basket funding managed by the World Bank to support the Health Equity and Quality Improvement Programme (H-EQIP), whose primary objectives are to improve the quality of services provided in the healthcare sector and social security for the poor through the HEF. The reduction in the number of different financing mechanisms in the healthcare sector is a positive development.

For the "ID-poor" group, the healthcare services will in future be covered by the HEF. Additional incentives, which contributed towards an increase in demand over the course of the voucher project, are however smaller: in the HEF, transport costs are covered only for specific services, e.g. for births, and there is no additional support in the form of food or a "baby package". The situation is more complex in regard to the services from which those who are not poor have also benefited. For the "not-poor", services provided for safe pregnancy termination (followed by family planning), cervical cancer and cataracts will be subject to payment once the voucher project has ended. Considering the number of "near-poor", it is questionable as to whether the majority of women are able (and willing) to pay for these services. The government will only concern itself with providing social security for this population group during the next healthcare strategy as of 2020.

Many healthcare facilities generate a large percentage of their revenue through the services covered by vouchers and, at present, through the cervical cancer check-ups in particular. In addition, some of the reimbursements offered by the HEF are below those offered through the voucher system. The equipment purchased during the project and the training measures implemented contribute towards the healthcare facilities being able to continue to offer the services (at least for the foreseeable future). Nevertheless, the end of the vouchers will very probably be connected to a considerable downturn in the revenue generated by facilities, which may cause personnel to become demotivated.

The voucher project has enabled a great deal of knowledge on reproductive health to be acquired. In addition, the second phase has helped to provide education regarding non-infectious diseases that are becoming more prevalent, such as cervical cancer. Although there is now a high degree of education, young people will continue to need instruction. The government plans to adopt the "promoter" system in the HEF; the budget set aside for this, however, is extremely small

Overall, the government prioritizes the healthcare sector and specifically reproductive health. Out of the planned EUR 174.2 million for the H-EQIP, the Cambodian government will be footing 54% of the bill and covering 17% with a loan from the World Bank, while the basket funding provided by donors will make up around 29%. Besides reducing fragmentation within the healthcare sector, the H-EQIP involves a greater degree of responsibility for the government overall.

Although the project has given rise to a number of learning effects, e.g. in regard to the impact of education and transport cost reimbursements, the degree of sustainability achieved is insufficient.

Sustainability rating: 4

Notes on the methods used to evaluate project success (project rating)

Projects (and programmes) are evaluated on a six-point scale, the criteria being **relevance, effectiveness, efficiency** and **overarching developmental impact**. The ratings are also used to arrive at a **final assessment** of a project's overall developmental efficacy. The scale is as follows:

Level 1	Very good result that clearly exceeds expectations
Level 2	Good result, fully in line with expectations and without any significant shortcomings
Level 3	Satisfactory result – project falls short of expectations but the positive results dominate
Level 4	Unsatisfactory result – significantly below expectations, with negative results dominating despite discernible positive results
Level 5	Clearly inadequate result – despite some positive partial results, the negative results clearly dominate
Level 6	The project has no impact or the situation has actually deteriorated

Rating levels 1-3 denote a positive assessment or successful project while rating levels 4-6 denote a negative assessment.

Sustainability is evaluated according to the following four-point scale:

Sustainability level 1 (very good sustainability): The developmental efficacy of the project (positive to date) is very likely to continue undiminished or even increase.

Sustainability level 2 (good sustainability): The developmental efficacy of the project (positive to date) is very likely to decline only minimally but remain positive overall. (This is what can normally be expected).

Sustainability level 3 (satisfactory sustainability): The developmental efficacy of the project (positive to date) is very likely to decline significantly but remain positive overall. This rating is also assigned if the sustainability of a project is considered inadequate up to the time of the ex post evaluation but is very likely to evolve positively so that the project will ultimately achieve positive developmental efficacy.

Sustainability level 4 (inadequate sustainability): The developmental efficacy of the project is inadequate up to the time of the ex post evaluation and is very unlikely to improve. This rating is also assigned if the sustainability that has been positively evaluated to date is very likely to deteriorate severely and no longer meet the level 3 criteria.

The **overall rating** on the six-point scale is compiled from a weighting of all five individual criteria as appropriate to the project in question. Rating levels 1-3 of the overall rating denote a "successful" project while rating levels 4-6 denote an "unsuccessful" project. It should be noted that a project can generally be considered developmentally "successful" only if the achievement of the project objective ("effectiveness"), the impact on the overall objective ("overarching developmental impact") and the sustainability are rated at least "satisfactory" (level 3).