



Strategic Purchasing Project

Learning Brief 4:

How Much Does it Cost for EHOs to Serve Rural Communities in Hard-to-Reach Settings?

September 2019



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Introduction

This is the fourth Learning Brief in the Community Partners International (CPI) series to transfer knowledge accrued in our Strategic Purchasing Project with the Karen Ethnic Health Organizations Consortium (KEHOC). In this learning brief, we explain the approach to calculating a capitation rate, as well as noting the other costs incurred when purchasing services at the system level. It gives context for the final capitation rate paid, then an explanation of how it was calculated including how this differs to the other pilots. Finally, it notes how the payment system was updated to include additional incentives beyond the capitation rate in 2019.

Once the target population and package of services were identified, it became possible to estimate the capitation rate: the amount of money needed to enable and incentivize the KEHOC to effectively cover the target population. In reality, the process was iterative and conducted in parallel with the identification of the population and the package, as explained in Learning Briefs 2 and 3. The figures here represent the costs estimated for the final package and final population coverage.

The approach used in this pilot represents a possible approach to paying ethnic health organizations (EHOs) directly for specific services and outcomes, which could be used by either donors or a public purchasing agent. Although the actual costs will depend on negotiations and scale, it represents a real estimate of the costs for EHOs to provide basic health services in rural and non-government-controlled areas. This approach is scalable, it improves health for isolated communities and, by supporting the Interim Arrangements, contributes towards peace.

1. How Much Does it Cost?

One of the key things CPI and KEHOC are attempting to discover in this pilot is whether purchasing from EHO providers is a scalable and feasible approach for Myanmar. Crucial to this is whether KEHOC can offer services aligned with the government's Basic Essential Package of Health Services (BEPHS) at a rate that the government's budget could cover.

The current cost of purchasing services from KEHOC is US\$10 per person served per year, covering reproductive, maternal and child health (RMCH), health education, general illnesses, non-communicable diseases (NCDs) and diagnosis of infectious diseases, provided both in clinics and by outreach to each village covered. Given that the populations served are in some of the most difficult to reach areas, particularly for government staff, this represents exceptionally good value. There are no user fees, so services will be financially accessible to all. Although it does not represent the full basic package the government aims to provide, it nonetheless covers a significant portion that could allow the MoHS to achieve its target of universal health coverage (UHC) within its current annual budget (at this cost per person, providing this package for the entire population could be achieved for two thirds of the government budget).

Comparing the cost to national and international examples, US\$10 per person per year is very affordable. It is comparable to Population Services International (PSI)'s pilot in Yangon (while the capitation is slightly higher, it also contains more of the total costs of service provision, as explained in this brief). Compared to MoHS's costing of the BEPHS, it is around half the price. Furthermore, it represents only around one quarter of total health spending in Myanmar

already, and is well below the expected cost of service provision internationally for basic services (WHO cited US\$12 as the minimum to provide even basic services as far back as 1993, with more recent figures for more comprehensive services as high as US\$86). It should be noted that no country has managed to provide health services for all at this cost: that this is the cost in hard-to-reach areas is a result of KEHOC's commitment and willingness to work with low salaries and meager travel allowances.

It also represents an excellent value proposition for donors. KEHOC have proven able and willing to provide information regarding coverage and provision of services as well as cost-effective provision among documented populations.

Although expansion and scaling would change the cost composition and reveal new challenges to be overcome, the initial costs and successful implementation (and data availability) suggest this is an approach that should be pursued from both health and peacebuilding perspective.

2. Previous Financial Arrangements

The previous financial arrangements for each of the four clinics involved in the pilot differed and each was complex. Some salaries were paid directly by vertical projects for work on malaria, tuberculosis (TB) or the Expanded Program on Immunization (EPI), to fulfill managerial roles outside of the clinics, while some were paid by the EHOs. In addition, the Karen National Union (KNU) local township authorities provided food for some clinic staff. Two clinics were included under the Swiss Agency for Development and Cooperation (SDC)'s Primary Health Care (PHC) Project, which enabled more consistent salary payment.

Medicines were provided six monthly by the EHOs, and were done so not on the basis of consumption but of quotas and funding availability. These were sometimes supplied by the Ethnic Health Systems Strengthening Group (EHSSG), a consortium of EHOs based in Mae Sot, by vertical projects (focused on just one or a few diseases) and sometimes by the communities themselves. This led to common stock-outs of important items, most severely in the case of Loh Baw clinic whose funding had ceased a number of years before this pilot was launched.

There was no consistent funding for maintenance or utilities. Funding for transport to other villages was provided by vertical projects or on an ad hoc basis.

3. Calculating the Costs to Run Functioning Clinics

In order to estimate the operational cost of a functioning clinic, we could not look at past costs where there was no consistency of funding either for the EHOs or the clinics for these areas. The Purchaser had to estimate how much the Provider would require to provide the package purchased, therefore, based on field-based modeling. Some elements were simpler theoretically: operational costs and salaries required field based monitoring to understand cost structures. The approach to these is explained first. Understanding the marginal costs for each service is explained second.

Fixed Operational Costs

CPI staff were sent to each village to develop estimates for costs from a variety of local sources. Transport, utilities and maintenance costs were thus directly estimated given the expected travel for outreach services of each staff member.

The cost of salaries was one of the most significant areas of negotiation as part of the process (as so often in such negotiations). It contained two elements: what is the staffing necessary to provide health care services on a 24 hour basis (as these clinics are the only options in emergencies) to the target populations, and how much should each staff member be paid?

We also considered performance incentives. Should staff receive a salary or should performance incentives be built in? Unlike self-employed General Practitioners (GPs), staff in EHO areas are usually poor and linked to the communities they serve. The greater the share of the compensation that is not guaranteed, the less attractive would be the contract (as the damage of a low income being reduced further is significant). Therefore providing a salary will be acceptable at lower total costs. Furthermore, prior to this project there was no sense of what appropriate targets would be, nor of what should be incentivized.

Given these concerns, the Steering Committee (after consultation with the clinic staff) chose to provide salaries in the first stage, to be revisited regularly during the pilot. The aim of the salary was to support staff and show that they are valued to ensure worker commitment, while nonetheless

ensuring costs did not spiral. The eventual figures are comparable with, but lower than, MoHS salaries for equivalent roles.

Marginal Costs of Medicines and Supplies

The formula used to estimate the cost of medicines and supplies for the package purchased essentially amounted to summing the cost of the items used in each intervention with the expected number of cases that would be seen in the pilot (shown in Figure 1 below).

Both volumes and costs, however, are complicated to estimate, so the approaches taken are detailed below.

Volumes

Estimating volumes was a serious challenge. There was no reliable data on clinic usage in the past, nor have the clinics been fully functioning. So even if we had the data, it would not necessarily be reliable. Therefore four data sources were used:

- Demographic data from the 2014 Census for Kayin State
- Data from two clinics under the SDC PHC project (for a limited range of interventions)
- Log book data from the last rainy season

Figure 1: Formula Used to Estimate the Cost of Medicines and Supplies

$$E[\text{Cost of drugs and supplies}] = \sum_{1}^{a=41} [\text{Volume of Intervention } a \times \text{Cost of Intervention } a]$$

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- for the other two clinics
- Estimates by clinic in-charges

None of these data sources could offer data for all interventions, so it was not possible to estimate the variation between all of the options. Therefore the four sources were compiled to fill in gaps from each source. Where there were overlaps, we prioritized some data sources. The summary of the data triangulation process is shown in Table 1 below.

Costs

The cost of each intervention depended on two things:

- The Standard Operating Procedures (SOPs) for each condition: these followed the Burma Border Guidelines (developed to train EHO staff in Mae Sot) where available and other procedures during pre-service training where not.
- Cost for medicines and supplies: these were estimated by KEHOC with assistance by CPI to ensure that high quality medicines were purchased. These were procured nationally by the Karen Department of Health and Welfare (KDHW) with CPI supervision.

In order to give KEHOC the freedom to do more than just offer the services as specified

Table 1: Summary of the Data Triangulation Process

Services	Data Source Explanation
Reproductive, Maternal and Child Health (RMCH)	Volumes were taken from the SDC data as two clinics that might offer a reasonable idea of usage of well functioning RMCH clinics. The rates of services/population were estimated for the other clinics from the data for Tha Yah Koh and Meh Pra.
Non-communicable diseases (NCDs)	Data for non-communicable diseases were not available as the cases have generally been under-treated if ever diagnosed. Clinic data showed 0 cases for three clinics. We therefore compared these with the population prevalence in census data. As identifying cost on the assumption that everyone needing NCD treatment would seek care would unrealistically escalate the cost, we used the SDC data for one clinic for hypertension and best estimates from the clinic in-charges for other types of NCDs. We expect that if service and diagnoses for NCDs improve and increase respectively, these volumes will increase and have a significant impact on total costs.
Nutrition, TB and Malaria	Estimates were based on population prevalence. However, we note that for TB and malaria, the costs for medicines and supplies are covered by national programs (though other costs – logistics, HR, M&E – are still covered by the Purchaser).
General illnesses	For general illnesses, which were the largest volumes of patients seen, eye care, dental services, leprosy, trauma services and treatment of ear, nose and throat conditions (ENT) there was very little data available. Where available this was taken from, by first preference, SDC data, by second preference, logbook data from the other two clinics, or of third preference by the clinic in-charge best estimates.

by the Purchaser, as well as to cover the significant uncertainty about patient volume estimates, there was also a contingency fund (5% of total funding) included above and beyond the calculations total to be spent on staff incentives, additional resources, or dealing with emergencies as appropriate.

4. How is This Different From the Calculus for Other Strategic Purchasing Pilots?

Unlike in the PSI and the Social Security Board (SSB) strategic purchasing pilots, the capitation rates for the four clinics included in this pilot would represent the entirety of funding that KEHOC would receive for their clinic's operation expenses. There would not be additional funding from non-registered patients paying user fees, so the pilots represented not an additional source of funding (and costs) but a complete replacement of funding.

For SSB and PSI, therefore, the estimation of costs essentially amounted to the second half of what was explained above: the sum of medicines and supplies needed to provide the package, with an additional element of

"profit" to incentivize clinics to provide the services.

In contrast, for the CPI-KEHOC pilot, the costs would have to include all the operational costs of providing health services (the first half of section 3 – salaries, transport, maintenance), as well as the marginal costs. While these could all be included in a "profit" category, it is worth detailing them because they represent elements that would also be crucial for any rural clinic that a purchasing agent might purchase from. They thus create a significant difference between purchasing from already financially sound private entities and replacing current line item funding for non-profit or government clinics that would depend entirely on this funding.

The difference is shown algebraically in Figure 2.

For the other strategic purchasing pilots, the only cost that needs to be covered in the capitation payment is the last, because the providers are already functioning effectively. In contrast, working with EHOs without another source of financing income, the capitation rate is required to cover the full set of costs. The first set of costs that were

Figure 2: Algebraic Representation of Cost of Providing Services

$Cost\ of\ providing\ services =$	<ul style="list-style-type: none"> Enough pay for staff to continue work Utilities for clinic Maintenance for clinic Health promotion materials Logistics costs to maintain stocks Drugs and consumables for current patients Drugs and consumables for new patients
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needed to operate effectively were therefore calculated separately from the cost of drugs and consumables.

It should be noted, however, that despite this extensive costing process, KEHOC were not contracted to spend the money they received exactly as determined in the costing. The budget they received was not a line item budget and could be detailed as in the other pilots as "profit" and "marginal costs". However, this costing served as the focal point for the process of negotiations about the right level for the capitation rate.

5. Additional Costs to Purchase From a Consortium

In addition to the costs of the clinics, in order to purchase from EHOs or anyone else, a national purchasing agent would have two significant additional sets of costs:

- A share of the cost of running the EHO health systems (including management, monitoring & evaluation (M&E), logistics, administration, finance). This is crucial to the benefits of Strategic Purchasing from EHOs: it enables EHOs to strengthen themselves and would also reduce the administrative burden of the National Purchasing Body. Without funding this level, the National Purchasing Body would have the impossible task of having to monitor every EHO clinic, and would in the process be weakening EHOs. (Note: this would be the case to purchase from any other type of provider as well: the national purchaser is unlikely to have the management capacity to purchase from individual clinics for a long time, so networks of providers will be essential. This cost is included in the \$10 figure that CPI is currently paying KEHOC).
- Verification costs: a purchasing

body cannot simply trust providers' own accounts of their performance if there are financial strings tied to that performance. It will therefore be necessary to budget for verification of the M&E received from consortia of providers. (Note: this will still be a much lower cost and administrative burden than if the Purchasing Body aimed to conduct M&E on each clinic, as it would only have to sporadically check that the information is valid (this cost is not included in the purchasing fee as it would be covered by the purchaser)).

Both of these items will be necessary in a national purchasing system, so increasing understanding of their scale should be a priority. It should be noted that purchasing from a system or consortia, even while it entails the capitation rate will be higher, is not necessarily more expensive as it will reduce the costs for the purchaser. As this is a pilot project, it inevitably entails more work and therefore cost than if it were to be developed at scale.

However, CPI hopes that as the pilot continues and potentially begins to scale, it may be able to contribute towards an understanding of what kind of bureaucratic functions are necessary for Strategic Purchasing from an EHO consortium (and therefore give a rough sense of the related costs) and what kind of verification is both acceptable and financially practical. We are considering developing a future Learning Brief to examine this, and advise that a focus can be maintained on the other costs that will necessarily arise in an effective national strategic purchasing framework.

6. Adjustments to the Payment Approach

After six months, the initial contract expired,

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to be replaced by a one-year contract for 2019. At this point, data was available for both performance of the clinics and expenditure, which naturally influenced the negotiations for both the format and size of the payment. Actual costs were compared to modeled expected expenditure, finding that KEHOC's expenditure had followed plans accurately, the only significant discrepancy resulting from the depreciation of the Myanmar kyat.

For 2019, two significant changes were made:

- The capitation rate was decreased to reflect exchange rate fluctuations. The first payment was calculated in US dollars, which appreciated against the Myanmar kyat. Therefore the costs (denominated in kyats) were lower than expected in USD. For 2019 the capitation was specified in Myanmar kyat at a level similar to the expected costs from 2018 (but which was equal to fewer dollars).
- Additional incentives were added to the

contract beyond the simple capitation model. After learning some of the areas that were a challenge and were felt to need further incentivizing, the Steering Committee were able to add measures to the contract. These included incentives to deliver information on time, to avoid all stock-outs, and to improve the role of community in the management of clinics. The value of these incentives will be between 0% and 15% depending on performance. However, it should be noted that the minimum payment to the provider remain at a level to provide for the current costs of providing the basic package of services demanded.

Therefore, in 2019 the broad structure remains the same, but the addition of some specific incentives linked to current performance has the potential to improve outcomes. This will be monitored to understand how EHO staff and management respond to such incentives to understand better the relative importance of such approaches.

The Strategic Purchasing Project is a collaboration between Community Partners International, the Myanmar Ministry of Health and Sports, the Access to Health Fund, the Swiss Agency for Development and Cooperation, and the Karen Department of Health and Welfare.

