The People's Health in Southeastern Myanmar: Results from a Household Survey and the Way Forward

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CPI COMMUNITY PARTNERS INTERNATIONAL

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Key Lessons

There is a paucity of recent information documenting the health status and needs of ethnic minority populations living in conflict-affected areas. Strategic purchasing is changing that as it requires information about service delivery to be provided to the purchaser. As part of monitoring and evaluation for Community Partners International (CPI)'s Strategic Purchasing Project in Southeastern Myanmar, to set a baseline and ensure the project is as efficient and effective as possible, CPI and the Karen Ethnic Health Organizations Consortium conducted a household survey in 2019. Preliminary lessons are contained here.

The findings demonstrate the particular needs of the Kayin (Karen) populations served. These can improve the service delivery approaches of EHOs. They also demonstrate some of the reasons EHOs are best placed to provide the services for minority communities. This reinforces the need to cooperate with and strengthen EHOs. Strategic purchasing is a promising way to do this while creating a system for EHO longevity and autonomy.

Specific lessons for health services and needs are:

- **Safe deliveries remain a key challenge that needs to be improved in non-government controlled areas.** Although ANC coverage is not perfect, the most immediate challenge is reducing the 75% of women that give birth at home without skilled supervision.
- **For NCDs there is a big opportunity to diagnose and treat residents visiting the clinic already.** At least to start with, control of hypertension and diabetes could be extended significantly by reaching those already coming to the clinic. NCD prevalence seem to be as high as the national average but with close to zero treatment, suggesting a lot of room for improvement.
- **Mental health is a critical issue in conflict affected areas, and should be part of any basic package of services targeted there.**

Specific lessons concerning the socio-economic situation of those living in communities served by EHOs are:

- The **populations in non-government controlled areas and mixed areas remain very poor.** Despite rural populations having more time to accumulate and access to raw materials for homes, the households remain very clearly toward the poorer end of populations in Myanmar.
- **Overall the majority of the population has experienced displacement as a result of conflict** (more than 50%). Fewer than 30% have completed childhood education, just 41% have Myanmar IDs, less than 12% can use Myanmar language fluently. The lack of trust that this limited interaction will have caused is a critical aspect to remember when trying to expand services to conflict affected populations.
- **Given the low levels of proficiency in Myanmar language** (65% speaking no Myanmar or only a little) **communications** with Kayin minorities living in mixed and non-government controlled areas **must be in Kayin language.**

Introduction

The multiple conflicts in border areas in Myanmar mean that the health of the predominantly ethnic minority populations living there lags behind those in central Myanmar. The conflict also means that far less is known about the health and wellbeing of populations living in these areas, many of whom are not even registered nationally.

In contested areas, most government facilities were only built and staffed in major cities for security reasons. Ethnic health organizations (EHOs) were set up to provide care in these areas to minorities that otherwise lacked for any type of health care. EHOs have been unwilling to share detailed information about either the populations they serve or their activities due to experience being targeted during the fighting.

Since 2012, conflict in southeastern Myanmar has fallen significantly, with key Ethnic Armed Organizations in Kayin, Kayah and Mon signing either bilateral ceasefires of the Nationwide Ceasefire Agreement (NCA). This has led to improvements in the health of conflict-affected populations, particularly for malaria control. Furthermore there have been tentative steps towards data sharing and cooperation for health service provision, though limits remain given the lack of a permanent peace deal.

Nonetheless, information concerning the health needs, attitudes and service seeking behaviour of populations in hard-to-reach areas remains very limited. This limits the ability of EHOs or any other provider to know what services are most needed, or how they should best be delivered.

The Strategic Purchasing Project between Community Partners International (CPI) and the Karen Ethnic Health Organizations Consortium (KEHOC) has opened a window on some of the services that EHOs can effectively provide and the demand that exists for them. In order to improve the effectiveness of this pilot and future service delivery approaches, CPI coordinated a household survey to better understand the populations involved.

This report briefly summarises the key findings from both the household survey and the initial results of the Strategic Purchasing Project. It does this by first explaining the project and why EHOs are being engaged to improve health services in conflict affected areas. Secondly it describes the two data sources: the project regular monitoring and evaluation and the household survey conducted in March 2019. Thirdly, it gives some of the key findings and lessons for both the specific project and for more broad future health service delivery plans in Kayin areas.

Strategic Purchasing from the Karen EHO Consortium

When the National Health Plan 2017-2021 was produced and recognized EHOs as crucial service providers in Myanmar, the question remained how services could be funded and their quality ensured. The Health Financing Strategic Directions paper, released this year, confirmed that the long term vision of the MoHS is to purchase services, from both public and non-state providers such as EHOs, to ensure everyone has affordable access to health services by 2030.

The model of purchasing requires that a package of (initially) basic services be specified and then paid for by the central government or purchaser. The central funds will then be channeled to providers to

deliver those services for a defined rate. This gives providers the autonomy to provide services in the best way for communities, while providing information that shows the services were delivered to the purchaser.

This autonomy is crucial for EHOs. After decades of conflict, ethnic institutions' trust of the central government is limited. Furthermore, the idea that EHOs would willingly submit to a financial arrangement where expenses had to be approved by that same Union Government is very unlikely in the short term, as well as being inefficient.

Given the need to cooperate with EHOs to ensure that ethnic minorities living in conflict-affected parts of the country have access to healthcare, strategic purchasing seems the best option. Because public (government) financing for a purchasing agent remains several years in the future, initiation and evaluation of the purchasing model currently relies on support from international donors. In this interim period (for both health and peace) international donors can prepare EHOs to participate in such a system for the long term and at the same time ensure that ethnic minorities are not missing out from health services that other parts of the country receive.

CPI and KEHOC began to develop the project as a new way for KEHOC to receive funds in early 2018, starting in July that year.

Data sources

Two main data sources inform the analysis:

- Firstly, routine monitoring and evaluation data from the Strategic Purchasing Project itself. These include number of visits, recording of blood pressure and the types of visits that take place.
- Secondly, a household survey was conducted in the areas the project is taking place in March 2019. More details on the methodology and questions asked are provided in Annex A. This survey reached 486 households, containing 2,167 people (over 20% of the project coverage population). This provided information on self-reported health status, previous health seeking behaviour, measured blood pressure, as well as non-health indicators such as socioeconomic status, livelihoods, education and the impacts of conflict. Because it was conducted 9 months after the inception of the program, it can provide preliminary information about changes in selected indicators over time.

Selected findings and lessons

Health Status

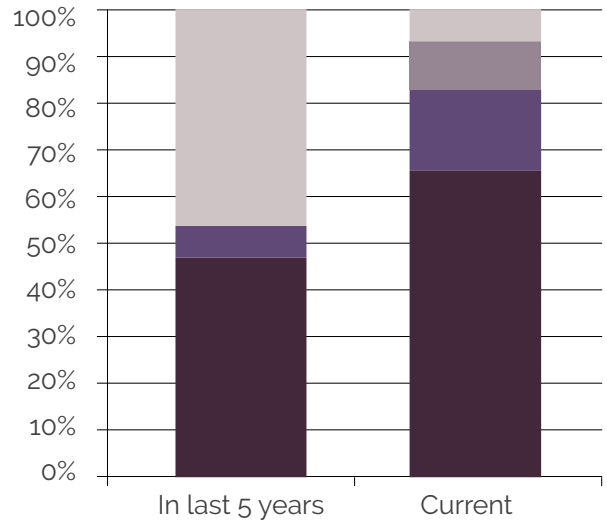
Maternal Health

Maternal health questions focused on how, where and whether women were accessing antenatal care (ANC) and delivery support.

For ANC, there has been an increase during the Strategic Purchasing Project (when compared to the past five years). Most women now seek care for the first time within the first four months, and over 90% of currently pregnant women either have already had their first ANC or intend to (higher than the national average of 81%).[1] This contrasts with just 53% prior to the project.

[1] Myanmar Demographic Health Survey, 2016 p.122

Figure 1: ANC health seeking among current pregnant women (n=29) and women that have delivered in the five years but prior to the project (n=118)

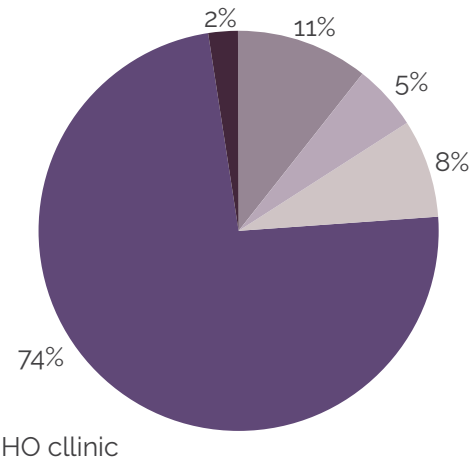


- No ANC
- Intending to have ANC
- Had at least 1 ANC
- Had at least one ANC, of which had in first 4 months

Although 7% remains too high for the share not seeking any ANC, this represents a high rate of treatment and is considered a success. It is therefore a focus on ensuring that women seek a full series of ANC sessions (4) and that they are high quality that the project will move to focus on. Also worth noting is that 10% of women sought the ANC care outside of the EHO clinic, most likely from a government midwife.

In terms of deliveries, however, there is a much more significant problem. Figure 2 shows the assistance received and location of deliveries in the last five years among respondents.

Figure 2: Location and attendants for deliveries in last five years (n=147)



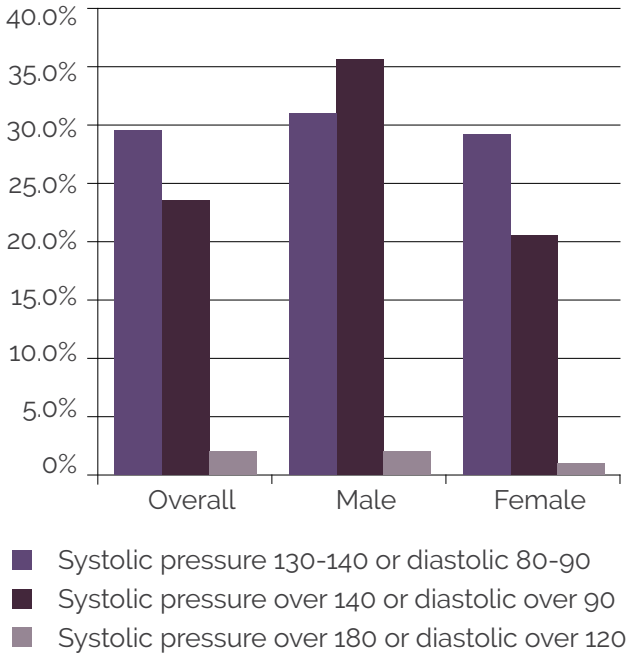
- EHO cllinic
- Other clinic
- Home delivery with skilled attendant
- Home delivery with household member/ neighbour
- Home delivery with no assistance

The 75% of women that delivered at home without any skilled assistance represents a serious challenge to maternal health. Given the traditions around delivery this may not be an easy challenge to resolve, but attempting to improve this situation will be a key aim of the project.

NCDs

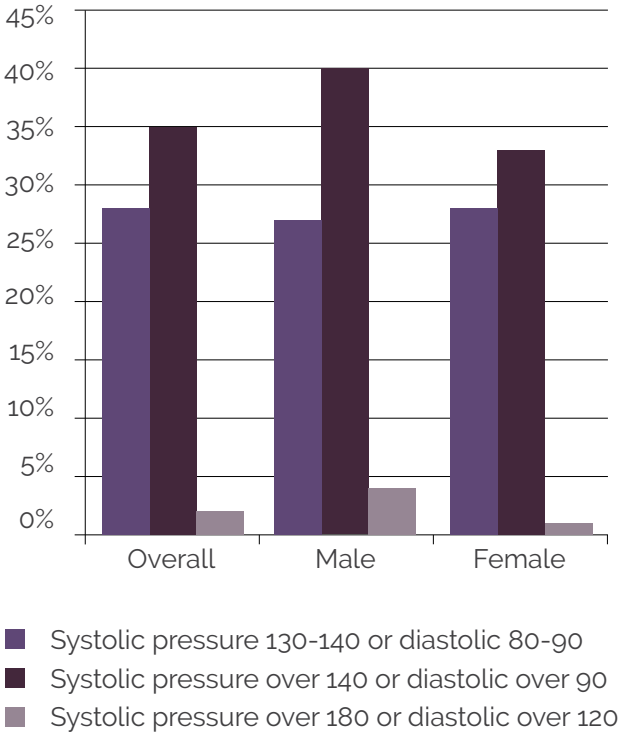
Blood pressure was taken where consent was given, and the population levels for high blood pressure overall are shown below in Figure 1. For the overall adult population (over 18), the level of high blood pressure is 23.6%, while 29.6% of the population are pre-hypertensive. This compares with national levels estimated at 26.4% from the 2014 STEPS study.[2]

Figure 3: Blood pressure of adult populations surveyed (n=423)



When the responses of under-45 respondents (mostly women), who are the target of the WHO PEN program to reduce CVD risk, are removed rates increase. Over 60% of respondents are either pre-hypertensive or already hypertensive. Over 40% of male respondents are hypertensive.

Figure 4: Blood pressure of populations surveyed over 45 (n=168)

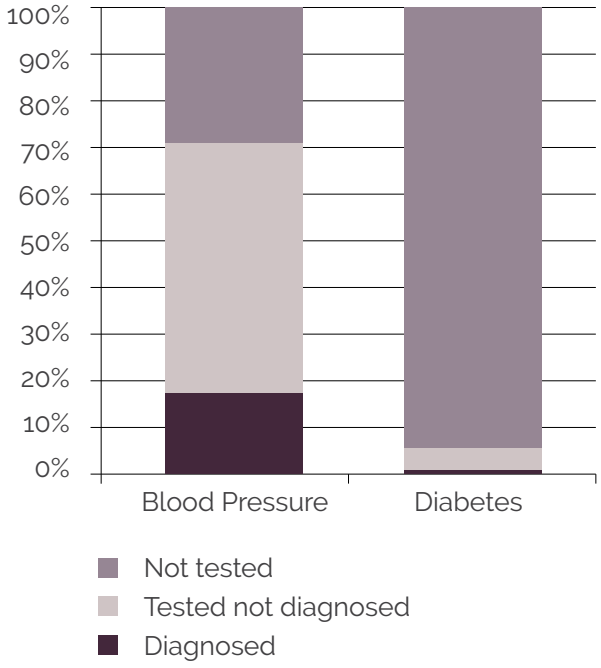


The household survey was also able to identify what share of the population had been tested for and diagnosed with both hypertension and diabetes. This is shown in Figure 5 below. It is not clear whether those untested or tested are in fact hypertensive or not, but what is known is that the level of identified hypertension are much lower than actual hypertension. There clearly therefore remains a gap of unidentified hypertension, which given the low testing levels we expect is also true for diabetes.

[2] http://www.searo.who.int/myanmar/areas/stepfactsheet_eng.pdf

Furthermore, when testing blood pressure (results shown in Figures 3 and 4) the proportion of those with hypertension receiving treatment was just 6% (lower than the national estimated level of 9.2%)[3]. Whilst both treatment and testing levels leave something to be desired, it is worth simultaneously noting that of the sample surveyed 46% had never sought health care. This reflects the limited access during conflict that has led to limited desire to seek health services. To really diagnose and treat the NCD burden in populations unused to seeking healthcare, demand for services needs to be increased.

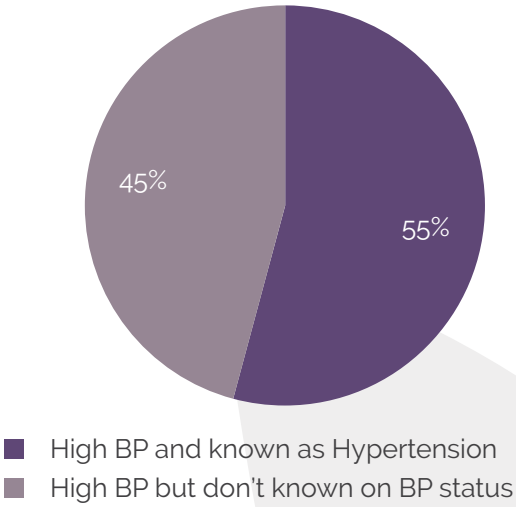
Figure 5: Treatment cascades for hypertension and diabetes



NCD service utilization – in Strategic Purchasing Project clinics

The Strategic Purchasing Project has recorded on a monthly basis the utilization within the four clinics included. In the logbooks, each patient's blood pressure is also recorded. This provides a way to estimate the blood pressures of those in the community that could be easily diagnosed (without outreach services). Figure 6 shows the share of those patients with hypertension that are seeking care for it compared to those that are seeking care for something else. These may the most easily reached patients.

Figure 6: Share of patients with hypertension seeking care for hypertension (July 2018 – June 2019)

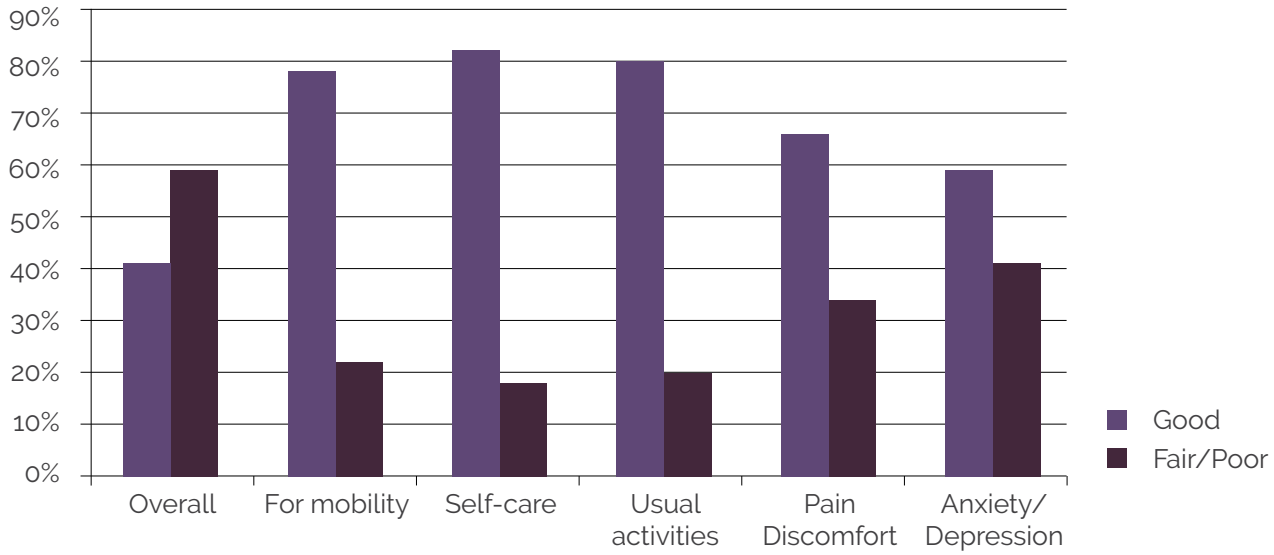


[3] http://www.searo.who.int/myanmar/areas/stepfactsheet_eng.pdf p.3

Self-reported

Respondents were asked to describe their wellbeing on a three point scale, along the lines of "good/no problems," "fair/some problems" and "poor/debilitating problems." The results are shown below in Figure 7.

Figure 7: Self-reported health status (n=431)



Noticeably, the area in which the highest levels of "fair/poor" (and "poor") responses were given were for anxiety/depression. There are currently no interventions in either the MoHS Basic EPHS or in any of the Strategic Purchasing Projects currently ongoing. Given this is viewed as the primary obstacle to normal life by the participants in this survey, it is reason to question this omission.

Lessons:

- **Safe deliveries remain a key challenge that needs to be improved in non-government controlled areas.** Although ANC coverage is not perfect, the most immediate challenge is reducing the 75% of women that give birth at home without skilled supervision.
- **For NCDs there is a big opportunity to diagnose and treat residents visiting the clinic already.** At least to start with, control of hypertension and diabetes could be extended significantly by reaching those already coming to the clinic. NCD prevalence seem to be as high as the national average but with close to zero treatment, suggesting a lot of room for improvement.
- **Mental health is a critical issue in conflict affected areas, and should be part of any basic package of services targeted there.**

Non-health status

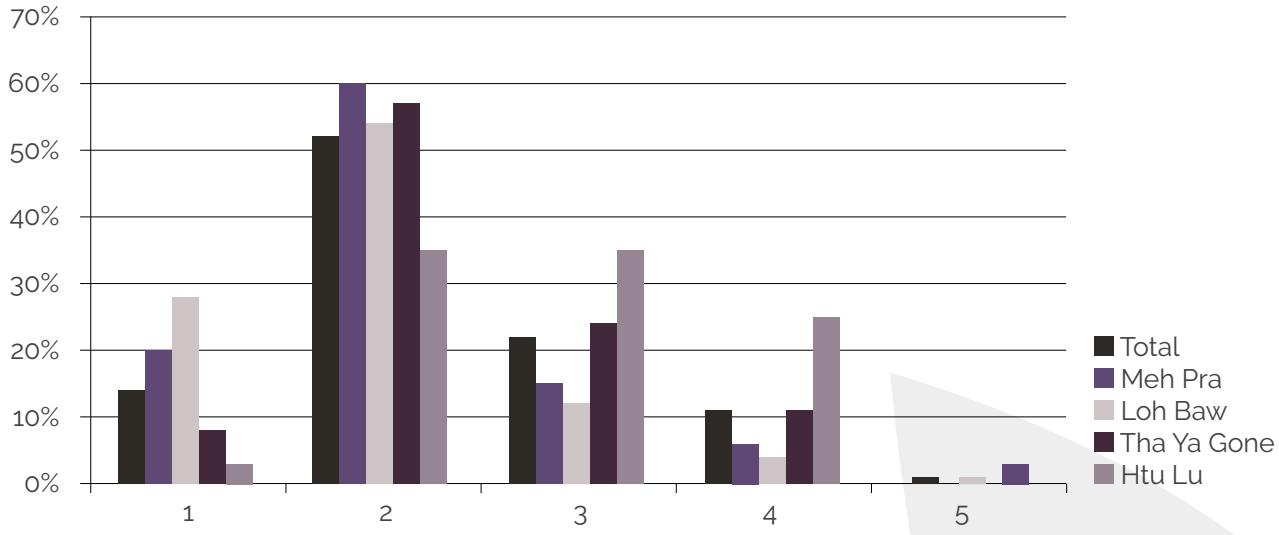
The socioeconomic status of the populations in hard to reach areas, their jobs, wealth, education and experiences of conflict all affect both the health needs and the best ways of providing for those health needs. What comes out is the lack of (positive) contact most residents have ever had with the state. While over 50% have been displaced by conflict, less than that are even registered with the Union Government and they remain broadly poor, with few of their needs catered for.

Equity Tool

The Equity Tool is a country specific set of questions that allows researchers to quickly identify where a household sits in terms of wealth in the country. For Myanmar, the questions include what material the exterior walls and floor of the house are made of, as well as whether the household owns indicative items such as a fridge, table, watch or bank account.[4]

The results of asking these questions is shown in Figure 8 below.

Figure 8: (Rural specific) Wealth quintiles for communities in the catchment area of the clinics involved in project



Over 50% of households surveyed are in the second lowest quintile with 85% of households in the bottom three. Mae Pra is the poorest catchment area, with 80% in the bottom two quintiles while Htu Lu is the wealthiest, with 60% in the third or fourth quintiles (though as will be seen in the later questions, Htu Lu's population is the most affected by conflict).

Although wealth cannot be directly linked to the government's poverty measures that focus on income, the rural livelihoods of these populations mean that income is likely to place them lower on the scale than wealth (which can be built up over time and for which natural resources are plentiful – for example 65% of houses are made of wood or brick rather than bamboo or leaf). Based on the national figures, however, which place the bottom two quintiles below the poverty line and the third as vulnerable (approximately), we expect that in this project, at least 65% (the bottom two quintiles) of the population are in poverty and another 20% (the middle quintile) are vulnerable.

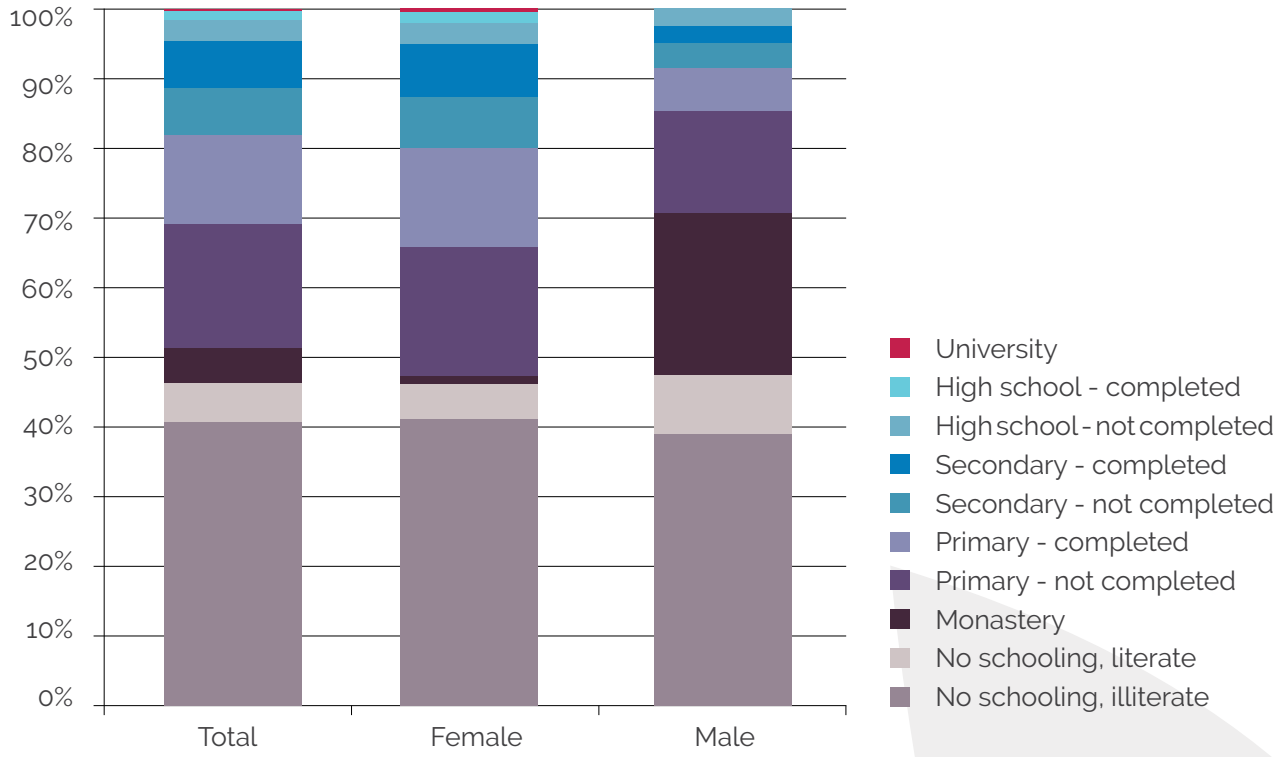
[3] For more details, see https://www.equitytool.org/myanmar/

Education/livelihoods

In terms of education, around 30% of those surveyed had completed primary school. Of the remainder, 45% had received no schooling while 25% had received some from either a primary school or a monastery. The details, separated by gender, are shown in Figure 9 below.

The result of this lack of access to education is that over 40% of the population is illiterate. Male literacy levels are higher, partly as a result of the monastery schooling that over 20% received for men (whereas less than 5% of women received).

Figure 9: Education received and level attained



Displacement

Over 50% of those that responded to the survey have been displaced by conflict at some point. Of these, more men had been displaced than women, though this may also be due to their average older age (more time to be displaced). Figure 10 shows this for each clinic catchment area below.

Loh Baw, nearest to the Thailand-Myanmar border and fully in a non-government controlled area, is the one clinic where the population have never been displaced. In Htu Lu, in Eastern Bago, over 75% have seen displacement at some point. In mixed control Mae Pra and Tha Ya Gone more than 50% have been displaced.

Figure 10: Share of population that have been displaced by conflict at least once

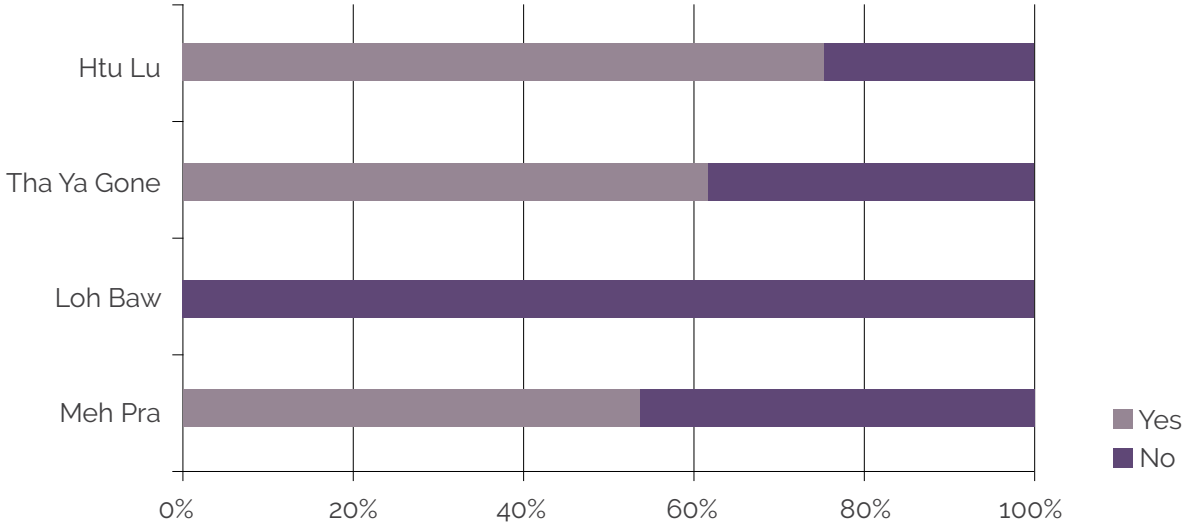
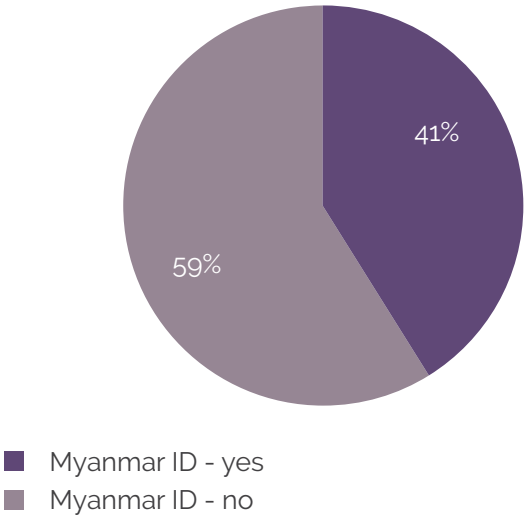


Figure 11: Share of population with Myanmar citizen ID

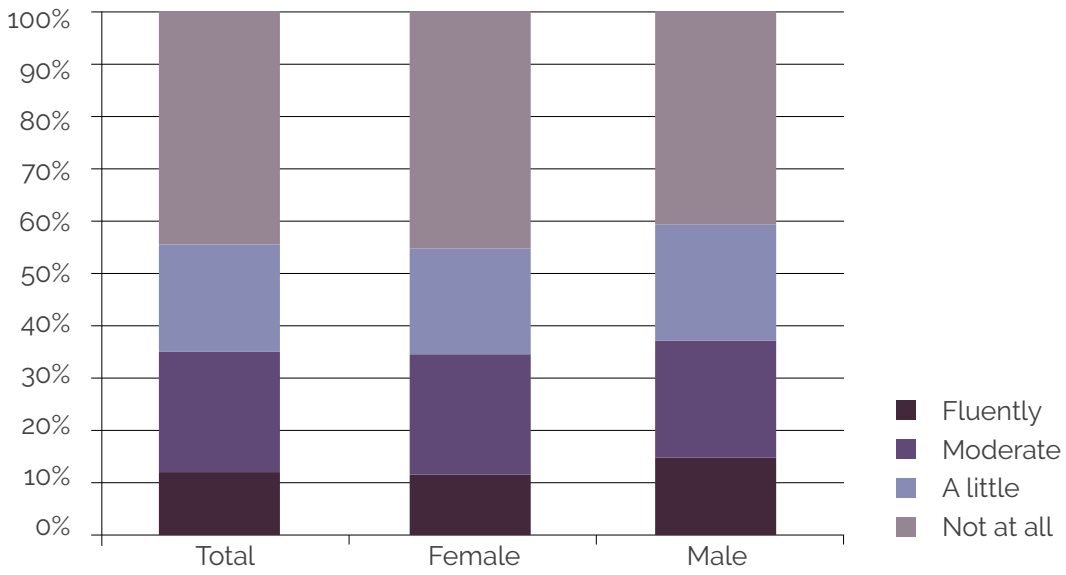


Citizenship and language

There is a significant difference between men and women: over 50% of men have a Myanmar ID whereas less than 40% of women do. This likely reflects greater engagement with formal or semi-formal employment opportunities. However, both are very low.

Language ability also plays a significant role in the accessibility of government services. The survey was conducted in Kayin language but asked those interviewed about their proficiency in the Myanmar language. The results are shown in Figure 12 below.

Figure 12: Proficiency in Myanmar language



Over 40% of the population speak Myanmar "not at all," while just 12% of the population consider they can use it fluently. Again, more male respondents feel comfortable at each level with the language. When combining this with education figures that over 40% of the population are not literate, what is clear is that government and NGO communications that are in Myanmar will not have any impact on a large share of the populations covered in this project.

Lessons:

- The **populations in non-government controlled areas and mixed areas remain very poor.** Despite rural populations having more time to accumulate and access to raw materials for homes, the households remain very clearly toward the poorer end of populations in Myanmar.
- Overall **the most significant interaction the majority of the population has experienced displacement as a result of conflict** (more than 50%). Fewer than 30% have completed childhood education, just 41% have Myanmar IDs, less than 12% can use Myanmar language fluently. The lack of trust that this limited interaction will have caused is a critical aspect to remember when trying to expand services to conflict affected populations.
- **Given the low levels of proficiency in Myanmar language** (65% speaking no Myanmar or only a little) **communications** with Kayin minorities living in mixed and non-government controlled areas **must be in Kayin language.**

Conclusions

There are significant needs in conflict affected areas, and these vary both from the overall Myanmar situation and from clinic to clinic and village to village. EHOs are the best placed to adapt to these complex environments as they have deep roots in the community and more adaptability than national government. Purchasing is an excellent way to empower and strengthen EHOs, while also generating information crucial to ensuring health services are delivered in the best way possible.

ANNEX A: Household Survey Methodology

A. Data Collection Process

To plan the survey, we estimated a target sample size of 484 (121 per clinic). This was based on calculations that clustered at the village level and stratified at the clinic level. This sample size would provide a level of precision of plus or minus 10% for an indicator whose prevalence in a clinic areas was 50%, assuming a confidence interval of 90%, and a design effect of 1.8 to take into account clustering at the village level.

To reach the target sample size per clinic we selected all villages if the clinic served less than or equal to four villages (Loh Baw). If the clinic served more than four villages, we randomly selected 4-6. To select target villages, all 31 covered villages were listed according to the clinic by which they are served, then within each clinic's villages selection was by simple random sampling.

In the second stage of the survey process, 30 households were randomly selected from each village (if the village had 30 households; if not all households were targeted). Data collectors began at the geographical centre of a selected village. After spinning the pen, a surveyor would travel in the pointed direction and stop to survey the third household they encountered; this process of spinning a pointer, then surveying the third house, was repeated until 30 households were surveyed.

Based on availability of field staff and accessibility, the survey was given to 17 villages in the catchment areas of the four clinics and answers eventually received from 486 households. These 486 household responses hold 2,167 individuals, representing approximately 20% of the population served in this pilot. Each questionnaire was completed by the person who answered when the surveyor arrived. When it came to the reproductive health question set (Q7), a mother of <5 children was selected to represent if present. This representative responder for Q7 may or may not have been the original respondent.

For the data collection process, a total of 12 surveyors, 3 surveyors from each of the clinic coverage areas, were selected. The criteria was that they were not an SPPP clinic staff member, they had a high school qualification and were able to speak both Kayin and Myanmar language.

The 12 surveyors were organized into 6 groups, 2 team members each, to collect data in the 17 villages and assigned to the areas where they originally come from rather than assigning new locations as it is more convenient for all of them and knew the ways to the villages better.

CPI conducted three days of survey training and field testing in Hpa-An with all 12 surveyors, ensuring that Kayin language translations were effective, consistent and accurate and that the questions and multiple choice answers were well understood. Following this, each surveyor group was supervised by one of the KDHW or CPI staff and went to the respective assigned location to collect data.

During the data collection process, the survey was recorded using android tablets and phones. The surveyors asked questions in Kayin language and recorded it in Myanmar typeface in the android application.

The supervisors from the KDHW and CPI travelled together with the surveyors and solved technical problems and issues but

were not involved in the survey interviews during the data collection process.

For the data counter checking, one of the team members used the mobile tablet as the primary data storage and another team member used the android phone for counter checking. 20 percent of interviews were counter checked by making double entry in the mobile tablet and the android phone.

B. Survey Questionnaire

This survey consists of eight question sets, each with specific parts and detail-oriented questions on a variety of health-related topics. Responses were anonymized and each respondent given a unique identifying code. The question sets pertain to the following eight areas: biometric data, education and employment information, migration status, socioeconomic status, health-seeking behaviour, reproductive/women's health, and satisfaction with an EHO clinic's services. In addition, the members of some but not all households also received a blood pressure measurement as a part of the survey.

The first set of questions collects basic biometric data. In this set, questions pertain to (text field answers) the individual's name, their village and township, age, gender and any current medications/medication allergies. After their signature of consent to the survey, their names, villages, and townships are given reference codes for data organization purposes.

The second set of questions asks about the respondents' education and income sources (aligned with questions asked during the registration process). Firstly, the questions pertain to an individual's primary and secondary (if applicable) source(s) of income, such as agriculture, handicrafts, salaried occupations, or "No income." Secondly, respondents may indicate that their or their household member's income is a "remittance," which means that their form of income requires them to work outside of their home village; if this is the case they are asked to respond with the location of the remittance, such as Thailand, Malaysia, elsewhere in Kayin State, elsewhere in Myanmar, or other locations. Thirdly, respondents are asked to report their education level, ranging from "No schooling, can't read or write," to "University graduate or higher," including all intermediate levels and monastic education. Fourthly, each respondent is asked for the number of members in their household.

The third set of questions focuses on migration status. Firstly, the survey establishes if the respondent already has any form of national identification (in Myanmar or elsewhere). Secondly, the respondent records their original home village/town and state/region. Thirdly, the respondent indicates if (and if so, when) they have ever been displaced by conflict. Fourthly, the respondent indicates if they or a household member migrate from the village regularly for work, and what portion of the last 12 months have they spent in the village. Fifthly, a household is asked if any member (indicate age and sex) migrates to (as opposed to from) the village regularly for work, and how many of the next 12 months will they spend in the village.

The fourth section contains questions from the 2018 Equity Tool for Myanmar. This tool takes the answer to each question and assigns each household to a quintile of the national income distribution, based on census survey analysis. For more information on how Equity Tool works and the assignment of quintiles, please consult the Equity Tool website.[5] Questions involve

[5] https://www.equitytool.org/

the respondent indicating whether they possess certain items, such as a wristwatch or a bank account, or if their household has specific items, such as a television, computer, table, mobile phone, refrigerator, or electronic fan. Secondly, the respondent answers about their living conditions; questions may vary from the main material of flooring/exterior walls (cement, brick, thatch, bamboo), to a household's primary source of drinking water (bottled water, lake, water fountain, well), as well as their primary source of cooking fuel (electricity, wood). Thirdly, questions specifically for farmers ask about land ownership: the survey asks if the respondent owns the land they farm on, as well as of any history of land confiscation.

The fifth question set is aimed at establishing the individual's health seeking behavior. Firstly, a respondent is asked for the most recent time they sought any form of healthcare, with answer choices ranging from "Within last week," to "More than 1 year ago," as well as "Never." About this visit, the respondent is asked about where they went when they last sought healthcare, such as a private clinic, government clinic, EHO clinic, private hospital, government hospital, or even a quack or traditional healer. As a follow-up question, the respondents indicate their reason for their choice; responses included reasons of location, language, cost, quality of care, customer service, or simply the lack of any alternative. Regarding this most recent visit, the respondent reports the reason for their last visit (sickness, injury, ANC), how much their last visit cost in Myanmar kyat (MMK), and how they paid that cost (cash, borrowed money and paid back, borrowed money and didn't pay back, sold assets). Secondly, the survey asks if the respondent or anyone in their household has ever been to an EHO clinic and, if so, if they were provided with the medications they needed. Thirdly, the survey asks if the respondent or any household member has been to an advanced healthcare center (private/government clinic, private/government hospital). If so, how much did that previous visit cost (in MMK), and how did they pay for it?

The sixth section asks the respondent to self-report about their current health status. Firstly, the respondent is asked about their history of blood tests, ranging from asking about any previous blood pressure measurement by a professional health worker, to having been tested for hypertension and diabetes. Secondly, the respondent indicates any previous diagnoses they have ever received, including diabetes, malaria, and tuberculosis. Thirdly, this set pertains to home health education: they are asked if (and from whom) they received any health education in the past 12 months. Fourthly, the survey contains a general wellness question including a self-evaluation of the respondent's overall physical health, mobility, self-care, usual activities, pain/discomfort, and anxiety/depression.

The seventh question set is specific to women, and pertains to maternal health. For this section, where the initial respondent was not a woman who had given birth in the last five years, they were replaced if there was another person present in the household who fit those criteria. If none such was present, this section was skipped. Firstly, respondents indicated if they are currently pregnant and, if so, if they've ever received ANC. Of those indicating a current pregnancy, they are further asked about the timing and location of their ANC sessions, as well as any obstacles they face while trying to receive ANC. Secondly, the survey continues by asking about history of childbirth: this includes questions on abortion history (when and how many), number of delivered children (live birth and still birth), and overall maternal history within

the past 5 years. Thirdly, there is a set of questions for women that did receive ANC for their most recent pregnancy (excluding current pregnancies). These questions include: the number of ANC sessions attended; received iron/folate pills/syrup; conducted urine/blood measurements; tests/vaccinations for HIV or tetanus; and any counseling about pregnancy danger signs. Fourthly, the respondent is asked about where they last gave birth (private clinic, hospital, midwife, home with household member/neighbor), why they chose that location (cost, location, no alternative), as well as their opinion on the care they received (from very bad to very good, with additional comments).

The eighth and final question set is used as a measurement of EHO clinic performance, done through its questions for level of satisfaction. These question include ranking from "Not Satisfied," "Somewhat Satisfied," "Satisfied," and "Highly Satisfied," in the following areas: clinic cleanliness, service provider's friendliness, waiting time at the clinic, amount of time spent with the service provider, privacy, availability to health information, quality of treatment package received, and overall performance with the clinic.

N.B. The survey data used in this report were sourced from a baseline assessment conducted for monitoring and evaluation purposes as part of CPI's Strategic Purchasing Project.

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