THE LONG JOURNEY

Health, Politics, and Human Rights in Eastern Burma

THE HEALTH INFORMATION SYSTEM WORKING GROUP

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ACRONYMS

21CPC	21st Century Panglong Conference
AMW	Auxiliary midwife
ANC	Antenatal care
ARI	Acute respiratory infection
ASEAN	Association of Southeast Asian Nations
BHS	Basic health staff
BMA	Burma Medical Association
BMI	Body mass index
BPHWT	Back Pack Health Worker Team
BRC	Burma Relief Center
CHDN	Civil Health and Development Network
CHW	Community health worker
COVID-19	Coronavirus disease 2019
CPI	Community Partners International
CRPH	Committee Representing the Pyidaungsu Hluttaw
CSO	Civil society organization
DDR	Disarmament, demobilization, and reintegration
DHS	Demographic and Health Survey
EAO	Ethnic Armed Organization
EBRMS	Eastern Burma Retrospective Mortality Survey
ECBHO	Ethnic and community-based organization
EHO	Ethnic Health Organization
EmOC	Emergency obstetric care
GDP	Gross domestic product
HA	Health assistant
HCCG	Health Convergence Core Group
HISWG	Health Information System Working Group
IDP	Internally displaced persons
IQR	Interquartile range
ITHP	Inclusive Township Development Plan
IUD	Intra-uterine device
KDHW	Karen Department of Health and Welfare
KIA	Kachin Independence Army
LAM	Lactational amenorrhea method

ACRONYMS

MCH	Maternal and child health
MMK	Myanmar kyat
MNHC	Mon National Health Committee
MoHS	Ministry of Health & Sports
MoU	Memorandum of Understanding
MTC	Mae Tao Clinic
MUAC	Mid-upper arm circumference
MW	Midwife
NCA	Nationwide Ceasefire Agreement
NCD	Non-communicable diseases
NGO	Non-Governmental Organization
NHC	National Health Committee
NHP	National Health Plan
NLD	National League for Democracy
NRC	National registration card
NUG	National Unity Government
PHC	Primary health care
PHWC	PaOh Health Working Committee
PPE	Personal protective equipment
PPST	Peace Process Steering Team
PNC	Postnatal care
RCCE	Risk communication and community engagement
SAC	State Administrative Council
SDC	Swiss Agency for Development and Cooperation
SMRU	Shoklo Malaria Research Unit
SSDF	Shan State Development Foundation
TBA	Traditional Birth Attendant
UNDP	United Nations Development Programme
USD	United States Dollar
USDP	Union Solidarity and Development Party
UXO	Unexploded ordnance
WASH	Water, sanitation and hygiene
WHO	World Health Organization
WRA	Women of reproductive age

EXECUTIVE SUMMARY

Since 2002, the Health Information System Working Group (HISWG) has committed itself to monitoring the status of health and human rights of the most remote and conflict-affected communities in Eastern Burma. To this end, the HISWG routinely conducts a large, population-based household survey called the Eastern Burma Retrospective Mortality Survey (EBRMS). In 2019, the HISWG conducted an EBRMS which covered an estimated population of 695,143 people in geographical areas that are primarily served by ethnic and community-based health organizations (ECBHOs). This report summarizes the results of the 2019 survey as well as the political and security environment that have shaped the protracted health emergency in communities in Eastern Burma since the previous EBRMS in 2013.

The results of the survey highlight the profound impact of ECBHOs on a range of indicators of health and well-being in communities in Eastern Burma. ECBHOs remain the primary health care provider in these communities, but the relatively improved security context and grassroots trust-building with government counterparts in recent years gave ECBHOs the space to optimize health care coverage in these areas. For example, the EBRMS demonstrated that coverage of antenatal care, skilled birth attendance, and family planning services significantly improved in Eastern Burma between 2013 and 2019. Access to these key maternal and child health services are essential for women and their infants to attain their full potential for health and well-being. In addition, formal birth registration for children under five jumped from 8% in 2013 to 45% in 2019. While over half of children remained undocumented in 2019, ECBHOs' ability to link more children to birth registration will impact their lifelong access to basic essential services including education, healthcare, and the right to vote.

This survey was the first large population-based household survey to estimate the prevalence of non-communicable diseases (NCDs) and their associated risk factors among adults in ethnic communities in Eastern Burma. Over the past two decades, there were growing signs that Eastern Burma would face an epidemiological transition to a "double burden" of both infectious diseases and NCDs. In response, ECBHOs increasingly integrated basic NCD services into their platform of community-based primary health care. The survey found that communities in Eastern Burma had relatively low access to screening, diagnosis, and treatment services, which suggests that limited access to NCD management services will drive inequities in health outcomes for people living with NCDs in these communities.

Since the EBRMS was conducted in 2019, the military coup d'état in February 2021 has led to a complete collapse of the country's public health system, an economic crisis, and a refugee crisis. Since the coup, the military's State Administrative Council (SAC) has waged a violent campaign against pro-democracy supporters and civilians, with particularly intense campaigns being waged in ethnic states, displacing almost 175,000 people in Eastern Burma alone. Documented human rights abuses committed by the SAC include intentional killing of civilians, torture, forced labor and extortion. These human rights abuses and the restrictions on humanitarian access to affected populations in Eastern Burma by the military mean that premature death, disability, and morbidity from both infectious and non-communicable diseases will worsen. In addition to the direct toll of injuries and death, active conflict will further weaken the capacity of the entire health system to prevent and control disease.

The military coup and the intensification of violent conflict in Eastern Burma will likely reverse many of the gains that ECBHOs have achieved since 2013. ECBHOs now face even greater challenges in terms of technical, financial, and material support to sustain healthcare provision in remote and conflict-affected communities, and to scale up assistance to the 180,000 newly displaced people since the coup. As the complexity and severity of the crises related to the coup continue to expand, supporting existing and trusted networks of ECBHOs is more important than ever to ensure that the humanitarian response is culturally sensitive, adaptable to changing dynamics on the ground, and able to reach the communities who are most in need of humanitarian assistance.

BACKGROUND

The largest country in mainland Southeast Asia, Burma[1] is bordered by the People's Republic of China in the northeast, Laos in the east, Thailand in the southeast, Bangladesh in the southwest, and India in the northwest. The country was estimated to have a population of 51.4 million people in the most recent census in 2014, though the census did not include some ethnic groups like the Rohingya or some ethnic areas of Kachin, Karen, and Rakhine States.[1] The majority (70%) of the country lives in rural areas and agriculture is the primary livelihood for over 70% of the population.

Burma is a country of rich cultural, linguistic, ethnic, and religious identities. There are 135 officially recognized ethnicities across the country, and non-Bamar ethnicities make up over a third of the country's population. For decades, however, both the military junta and the government have privileged the Burmese language, religious traditions, and culture in a process of "Burmanization." As a result, many ethnic minorities have been denied their basic rights as citizens, faced various forms of discrimination, and experienced continuous or sporadic armed conflict in the border states where a majority of the ethnic minorities live.

Around the time that Burma gained its independence from Britain in 1948, ethnic armed organizations (EAOs) began to form in opposition to the majority Bamar government for recognition of ethnic rights and self-determination. Different EAOs have different interpretations of self-determination, ranging from secession from the state to greater autonomy within a federal union. While defending their homelands against the Burmese armed forces (known as the Tatmadaw), EAOs have also effectively established parallel governance structures in ethnic states with their own systems of administration, clinics, schools, justice mechanisms, and other departments.

Since the publication of the findings of the previous EBRMS 2013 in The Long Road to Recovery, Burma's political and security landscape has been changed by the peace process including the Nationwide Ceasefire Agreement (NCA) in 2015, the first democratic elections in 53 years in 2016, the COVID-19 pandemic starting in 2020, and a military coup in early 2021 that returned the Burmese armed forces to power.

[1] The country's name was changed to the Republic of the Union of Myanmar in 1988, but the term "Burma" is used throughout the report to reflect the continuation of the same fragile relationship between the Union government and ethnic governance structures after the name change.

THE PEACE PROCESS (2011 – 2021)

The formal peace process started under the pro-military Union Solidarity and Development Party (USDP) government in 2011-16 and continued under Aung San Suu Kyi's National League for Democracy (NLD) government from 2016 to 2021.

Burma transitioned to a nominally quasi-civilian government in 2011 after the election of the USDP in which the NLD party and many ethnic minority parties either boycotted or were banned from participating. Under the USDP led by President Thein Sein, the government kept former military officials in almost all key government positions.

In 2015 Aung San Suu Kyi's NLD party won a landslide election as the first democratically elected government in over 50 years. The election of her party inspired widespread optimism that the NLD could lead a genuine process of democratic reforms and transform the country into a more peaceful federal union. However, the Tatmadaw had drafted the country's constitution in 2008 in a way that kept significant power concentrated in the hands of the military, and allowed little to no oversight or control of military actions by a civilian government. The 2008 constitution kept the powerful Ministries of Border Affairs, Defense, and Home Affairs as well as the military, police force, and Border Guard Forces under the Tatmadaw's control. The constitution also guaranteed the military at least 25% of parliamentary seats, while requiring that any amendments to the constitution pass with over 75% of votes – making Burma the only country where the military has veto power over constitutional changes, and leaving the military in control over much of the democratic reform and peace processes.

Throughout the USDP and NLD administrations, Burma pursued two main strategies to bring about political peace and reform: (1) ceasefires to end military conflict and (2) political dialogues to design the formation of a federal state. Ultimately these strategies remained largely separate from one another, and had limited successes. One of the greatest obstacles to achieving political peace through these mechanisms were the incompatible visions of how these two processes should be sequenced. Broadly speaking, most EAOs wanted a political solution in place first before committing to disarmament, demobilization, and reintegration (DDR) of ex-combatants. The Tatmadaw wanted EAOs to commit to DDR first before they would consider discussing political reforms. Beyond this fundamental incompatibility was the political reality that the Tatmadaw was inherently opposed to federalism. Under a federalist system and the constitutional amendments that would have been required to create it, the military would have lost much of its power.

CEASEFIRES

By the end of 2012, a majority of EAOs had signed bilateral ceasefires with the government. These bilateral ceasefire agreements significantly improved the security context for many –but not all —communities in ethnic border states. Thein Sein's government claimed to want a nationwide ceasefire agreement (NCA), but the actions of the Tatmadaw led to an NCA that was anything but nationwide. Refusing to engage in collective negotiations with EAOs, the Tatmadaw's approach was instead one of "divide and rule." As the Tatmadaw procured agreements with one EAO, they increased their military presence and attacks in areas controlled by other EAOs. Perhaps the greatest indication that the NCA was never intended to be nationwide was that only 15 of the 21 EAOs were invited to sign the 2015 NCA.

Different EAOs who had been invited to participate in the NCA process had different reasons for signing or not signing the 2015 NCA. Some EAO non-signatories did not want to sign a ceasefire without first securing meaningful political reforms from the government, while signatories were willing to work within the NCA framework to subsequently pursue political reforms. Other EAOs criticized the lack of inclusivity of the NCA process and refused to sign. Some EAOs preferred to wait to sign until the NLD party would come to power. In the end, most EAOs were not willing to agree to terms which the Tatmadaw were so willing to violate. Most notably, the Tatmadaw had broken a 17-year bilateral ceasefire with the Kachin Independence Army (KIA) in 2011 which caused massive population displacement across Kachin and Northern Shan States. EAOs also observed the Tatmadaw's level of involvement in the largely inter-ethnic fighting in Rakhine State, which remains one of the worst humanitarian crises in the world and a "textbook example of ethnic cleansing."[2]

Five EAOs maintained bilateral ceasefires with the government. Only eight EAOs – accounting for only 20% of the estimated 65,000 ethnic army personnel – signed the NCA in 2015. Two more EAOs signed the NCA in 2018. Signatories were removed from the list of unlawful associations, after which Union government counterparts could formally engage EAO representatives in peace and political reform dialogues. EAOs that were signatories to the NCA formed the Peace Process Steering Team (PPST), but by 2017 the PPST announced that the NCA process had deviated from its intended path.[3]

FORMAL PEACE NEGOTIATIONS

Citing the peace process as her highest priority, State Counselor Aung San Suu Kyi named herself the chairperson of the National Reconciliation and Peace Center and proposed the 21st Century Panglong Conference (21CPC). The 21CPC was a forum in which leaders from the Tatmadaw, EAOs, and the civilian government could work together towards the stated aims of uniting all ethnic nationalities and building a democratic federal union through dialogue.

Four 21CPC events were held between September 2016 and August 2020, but even by the end of the second meeting, it was evident to many participants and observers that the conference would not result in meaningful progress towards the formation of a democratic federal government. Broad statements supporting federalization could be agreed upon in general terms in a Union Accord, but federal principles such as equality, autonomy, power sharing between the Union government and the states/regions, and concrete steps towards drafting state constitutions were barely discussed.

Meanwhile, the Tatmadaw continued military operations against both NCA signatories and non-signatories, and a number of EAOs continued to be excluded from both ceasefire and peace negotiation processes.

SECURITY IN EASTERN BURMA

After the Tatmadaw and EAOs signed ceasefires, many communities in Eastern Burma experienced improved security, more freedom of movement, and lower risk of forced labor. With increased freedom of movement, communities could find better economic opportunities with the ability to travel to and from markets.[4]

Compared to the period before the bilateral ceasefires were signed in 2012, the average annual rate of displacement in Southeastern Burma decreased from about 75,000 people to 10,000 people per year. Whereas conflict had been the primary driver of displacement prior to 2012, now natural disasters became the biggest factor, with floods and landslides causing 75% of new displacement in the Southeast.[5]

At the time of the EBRMS 2019, over 95,600 refugees remained displaced in camps in Thailand.[6] A significant number of refugees who had been living in protracted displacement in camps in Thailand for decades chose to return to Burma during this period. However, the reason for return had more to

do with the fact that families could no longer survive on shrinking ration sizes due to decreasing international assistance to camps, than it had to do with improved security or economic conditions in Burma.[5] Those who returned faced challenges in accessing land for housing and farming, and reestablishing their livelihoods in Burma.

While there were overall improvements in the security context and conditions for return, communities in Eastern Burma experienced a disconnect between ceasefires and true peace. Ceasefires in Eastern Burma were unstable, and communities shared widespread and ongoing concern that fighting would resume. Communities in Karen State reported that they experienced no reduction in Tatmadaw or EAO presence in or around their villages after the ceasefires of 2012 and 2015.[4] They also saw new troop recruitment by armed actors, especially of men and boys, and planting of new landmines by both sides. As a result, landmine and unexploded ordnance (UXO) contamination remains widespread across Eastern Burma. Landmines and UXO disrupt livelihoods and travel across Eastern Burma, and remain one of the major obstacles to the return of refugees and IDPs.[7] Burma is not party to the Mine Ban Treaty or the Convention on Cluster Munitions, and Burma is the only nation whose security forces still actively use landmines. No landmines have ever been removed under humanitarian clearance programs.[8]

THE HEALTH SYSTEM IN BURMA

The health system remained a low priority throughout military dictatorship. When the quasi-civilian USDP government came to power in 2011, health expenditure was one of the lowest in the world at 1.9% of GDP. While spending improved slightly under the NLD government, expenditure increased to only 4.8% of GDP in 2018.[9] ECBHOs are trusted by local communities, speak local languages, and are members of the communities that they serve.

The consequences of this lack of investment in population health have been severe. For decades, Burma has had poor coverage of primary health care, inadequate infrastructure, a shortage of trained health workers, essential medicines and supplies, and high levels of out-of-pocket payment for health. Despite improvements over time, the maternal mortality rate remains the highest among ASEAN countries at 250 maternal deaths per 100,000 live births and the under 5 mortality rate is the second highest at 45 deaths per 1,000 live births.[10,11] National level statistics can conceal deep inequities in health outcomes across different geographical areas, with the worst outcomes in ethnic, remote and conflict-affected areas of the country.[12,13]

Spending on health is constrained to some degree by highly centralized government budgeting procedures. The Ministry of Health & Sports (MOHS) has remained highly centralized in its own operations, with infrastructure, staffing, and medicines delivered through a central planning process. This level of centralization does not allow the health system to meet the different needs of ethnic regions in terms of varying disease patterns, languages and cultures, nor does it.

ETHNIC AND COMMUNITY-BASED HEALTH ORGANIZATIONS

After decades of armed conflict and human rights abuses by the military junta, state-supported institutions like health facilities, schools, and courts are absent and mistrusted in many conflict-affected ethnic areas. In their absence, networks associated with EAOs have used international assistance to provide healthcare, education, and other basic services. Ethnic and community-based health organizations (ECBHOs) have been working to improve access to primary health care services for IDPs, refugees, and communities. In addition to providing basic preventive and curative services for the most common communicable diseases (particularly diarrhea, malaria, and respiratory infections), ECBHOs also provide basic reproductive health care, child health services, health education campaigns, control of disease outbreaks, relief during acute emergencies (such as storms and flooding), and water and sanitation projects. ECBHO health workers are trusted by local communities, speak local languages, are members of the communities that they serve, and remain the main source of health-related services for hundreds of thousands of people living in remote ethnic communities in eastern Burma.

A Karen medic provides treatment to a sick pregnant woman following the coup

In some of the more stable areas of eastern Burma, ethnic health service providers have established fixed clinics, with one clinic for each village tract (comprising a population of 2,000-5,000).[2] In more isolated and conflict-affected areas, health care services are provided by mobile teams of health workers. Teams are assigned to village tracts based on geographic proximity to ensure maximum accessibility and effectiveness. In this "backpack" or "mobile" model, medics are based in their home village, and provide outreach medical services to nearby communities. They also respond to referrals from a network of trained village health workers and volunteers, as well as trained, locally-based birth attendants.

[2] A village tract is the basic administrative unit which is made up of one or more villages depending upon the size of population in each village. There are typically around 10 villages in a village tract.

ECBHO health providers receive a comprehensive didactic and hand-on training program led by the Mae Tao Clinic (MTC) in Mae Sot, Thailand, in partnership with two Thai universities (Thammasat University and Khon Kaen University). The MTC is a comprehensive health service provider and training facility, established to promote and contribute to accessible quality health care among displaced Burmese and ethnic people along the Thai-Burma border. In 2018, the first EHO teaching hospital was opened in Kawkareik Township in Karen State to accelerate training of higher-level ethnic providers like medics within the country.

ECBHO health care workers are also able to provide referrals for patients in need of secondary and tertiary level care, with initial referrals made across the border to the MTC in Mae Sot, Thailand. For patients requiring more specialized care, the Mae Tao Clinic is able to refer patients directly into the Thai public hospital system through long-standing, close collaborations with local Thai health authorities and hospitals. Referrals are also made to clinics managed by the Shoklo Malaria Research Unit (SMRU) on the Thai side of the Thai-Burma border. SMRU clinics are equipped to treat patients in need of more complex care including emergency obstetric cases and severe malaria cases.

Until recently, EHO health workers were not formally recognized by the government, and they still are not officially licensed to make referrals into the government health care system. Referrals to the government health care system have been especially been complicated in areas governed by EAOs who have not signed the NCA, because both ethnic health workers — and anyone who coordinates with them for any purpose, including for emergency health care referrals — can be treated as insurgents and arrested under the Unlawful Associations Act of 1908. Language barriers and ongoing conflict are also significant barriers for coordinating referrals between the two systems. However, in areas where ECBHOs and their MOHS counterparts have been able to engage in sustained dialogue and trust-building, successful referrals from ECBHO providers to higher level government facilities have increased over time.

Health workers participating in the Civil Disobedience Movement (CDM) and ethnic health providers work together to provide emergency care to a woman injured by mortar shelling following the coup.

Political changes in Burma have affected the ability of EHOs and CBHOs in Eastern Burma to deliver health care to communities. Starting with the Thein Sein administration in 2011, international funding starting shifting away from ECBHOs that worked across the Thai-Burma border in order to show support for the Union government's efforts to reform. Funding went to support government health system strengthening, as well as to officially sanctioned national and international non-governmental organizations (NGOs) that had signed Memoranda of Understanding (MoU) with the government. While international donors continued to highlight the health needs of remote ethnic communities, their support would need to be channeled through an officially sanctioned NGO or Civil Society Organization (CSO). Many ECBHOs experienced not only an overall decline in support, but also greater restrictions in decision-making power, such as over the type, quantity, and quality of medicines and supplies that they could procure, under this layered funding model.

This shift in international funding became more dramatic after the democratic elections in 2015 and the NLD's publication of a new National Health Plan for 2017-2021 (NHP).[14] The NHP was a landmark document in that it acknowledged EHOs as one of the key healthcare providers in Burma for the first time. However, the NHP outlined a hierarchical framework in which the MOHS remained in control of planning, regulating, and financing health care nationwide, with inadequate inclusion of EHOs in leadership and decision-making for health care provision in ethnic areas.

This high-level recognition of EHOs in the NHP was important for increasing dialogue and coordination between the MOHS and ECBHOs. However, the document did not set out clear processes or targets to guide meaningful inclusion of EHOs in health care planning or provision that would contribute to localization of the health system. The NHP did take initial steps towards moving to a decentralized federal health system by emphasizing Inclusive Township Health Plans (ITHP) to identify and address gaps in infrastructure, human resources for health, training, and financing. In theory, stakeholders from all four recognized providers (government, EHO, private sector, and NGOs) from selected townships would collaborate together to develop priorities for the ITHP to feed into higher level planning. In reality, some ECBHO representatives experienced their role in ITHP development more as "observers" than as "participants." Ultimately, the MOHS was still constrained by centralized budgeting and administrative processes, and ITHPs had little chance to truly guide resource allocation and decision-making at the local level.

In contrast to the highly centralized NHP framework for partnership, a group of ECBHOs that are working together as the Health Convergence Core Group (HCCG) have proposed an alternate model commonly

referred to as the "rocket ship model" (Appendix 1). In this model, the MOHS and EHOs/CBHOs, which have long worked in parallel to one another, support the convergence of primary health care over time in a way that takes the peace process more explicitly into account by making a peace accord a precondition for convergence of the two health systems. This convergence model would be the basis for a federal health system, in which decision-making could be efficiently decentralized to local actors at the state/region level, and still allow ECBHOs to take a leading role in health service planning and provision in their own areas.

BACKGROUND ON THE EBRMS

The organizations included in this report represent a group of ethnic and community-based health organizations providing primary health care services to remote and underserved communities in eastern Burma. These organizations include the Back Pack Health Worker Team (BPHWT), Burma Medical Association (BMA), Civil Health and Development Network (CHDN), Karen Department of Health and Welfare (KDHW), Mae Tao Clinic (MTC), Mon National Health Committee (MNHC), PaOh Health Working Committee (PHWC), and Shan State Development Foundation (SSDF). These organizations have formed a collaborative network called the Health Information System Working Group (HISWG) to establish health workforce strategies, develop training curricula, identify service needs and gaps, design and implement projects and programs and conduct health surveys.

Starting in 2004, the HISWG began conducting broad, population-based, retrospective mortality and morbidity surveys of internally displaced persons (IDP) and remote communities in eastern Burma. These surveys covered basic health indicators and population-level data of remote and IDP communities served by ethnic health organizations, as well as morbidity, mortality, and priority health conditions faced by these communities. The surveys also assessed local populations' experiences with human rights violations and their impacts on health. The surveys were unique in that they captured essential health information on remote communities in the ethnic states that was not available from government service providers or other health organizations. The results of these surveys were released in a 2006 report entitled "Chronic Emergency: Health and Human Rights in Eastern Burma," a 2010 report entitled, "Diagnosis Critical: Health and Human Rights in Eastern Burma, and a 2015 report entitled, "The Long Road to Recovery: Ethnic and Community-Based Health Organizations Leading the Way to Better Health in Eastern Burma.

It is complicated and challenging to estimate the true toll that the military junta have taken on ethnic

communities in Eastern Burma in terms of mortality, morbidity, displacement, and violations of human rights. Findings from EBRMS 2013 found that the infant and under-5 mortality rates in Eastern Burma were twice and three times higher, respectively, compared to national statistics.[12] Most deaths were attributable not to the mass violence itself (e.g., targeted killing of civilians, landmine incidents) but to preventable diseases like malaria, diarrhea, malnutrition as well as complications during pregnancy and childbirth. Findings from EBRMS 2008 and 2013 demonstrated the relationship between human rights violations and health. In 2008, in households that had experienced forced labor, infants were 2.5 times more likely to die before 1 year of age, and children were 1.9 times more likely to die before age 5 compared to children in households that had not experienced forced labor.[13] Children under age 5 were 3.3 and 1.8 times more likely to have moderate/severe acute malnutrition in households that had experienced displacement and destruction or seizure of food, respectively.[13] Similarly, researchers on the Thai-Burma border have found that having been subjected to human rights violations in Burma has been associated with poor access to maternal and reproductive health services, preterm birth, and lower birth weight for refugees living on the Thai-Burma border.[15]

The members of the HISWG designed and implemented this survey. This report presents the results of the latest population-based survey of remote communities in Eastern Burma in 2019.

METHODOLOGY

From April to June 2019, 43 surveyors conducted retrospective household surveys in six states and regions, including accessible areas of Eastern Bago, Karen, Karenni, Mon, Paoh, Palaung and Shan South.[3] The primary objective of the study was to estimate morbidity indicators in the service areas of the six ethnic and community based organizations that deliver health services to conflict-affected and remote populations in Eastern Burma. Additional outcomes of interest included demographics, migration, mortality, self-reported health status, maternal and reproductive health, child health, water and sanitation, nutritional status and access to food, human rights violations, and access to health services. The survey underwent ethical review and approval by a Community Ethics Advisory Board based in Mae Sot, Thailand and Queen's University in Ontario, Canada.

[3] These areas reflect the geographical boundaries used by ECBHOs, and do not necessarily correspond to government demarcations.

SAMPLING

Table 1. Sampling frame for EBRMS 2019

Area/Organization	Total Population
CHDN	122,018
KDHW	258,243
BPHWT	208,850
BMA	85,201
SSDF	7,191
MNHC	13,640
Total population	695,143

Surveys were conducted using two-stage cluster sampling and data were collected from a total of 3,562 households. The sampling frame of 695,143 people (144,423 households; Table 1) was constructed using village-level population lists provided by EHOs and CBHOs that had been updated within the past year. Geographic boundaries were drawn based on service (or catchment) areas for each health organization. The stratified, two-stage household sampling protocol was designed to facilitate estimation of key morbidity indicators across all EHO/CBHO service areas in Eastern Burma. In the first stage, 186 clusters were selected using probability proportional to size; in the second stage, systematic random sampling was used to select 20 households for each cluster. A household was defined as a group of people who live under the same roof for two or more months and share meals.

DATA COLLECTION

The survey instrument was based on the previous EBRMS data collection tool, and was modified to reflect key concerns of EHOs including the rising incidence of non-communicable diseases (NCDs). The data collection tool was originally written in English, and then it was translated by local bilingual speakers into Burmese, Karen, Mon and Shan languages and checked with a second translator.

Forty-three enumerators participated in a two-week training conducted in local languages in the BMA Training Center in Mae Sot, Thailand. The training covered sampling, interviewing techniques, informed consent protocols, handling adverse events, mid-upper arm circumference (MUAC) measurement, and blood pressure measurement using automatic monitors. Training was complemented by mock interviews and observed field testing of the survey tool.

A verbal informed consent process was undertaken with each household. Interviewers requested that the male or female head of household respond to all of the household survey

Trained EBRMS surveyors consulted village leaders before collecting data.

questions. If the head of household was unavailable, respondents were selected in the following descending order of priority: a woman of reproductive age (WRA; ages 15-49 years) with the youngest child under five in the household, a WRA who was pregnant at the time of the survey, and the oldest WRA in the household. To increase the number and fidelity of information collected about maternal and reproductive health, interviewers asked an additional set of questions related to reproductive health to all WRA in the household who either had a child under five or were pregnant at the time of the survey.

Field testing the questionnaire.

The survey included physical measurements to assess the prevalence of moderate/acute malnutrition. Malnutrition was assessed by measuring the mid-upper arm circumference (MUAC) of WRA who were 6-59 months of age.

Suspected cases of malnutrition, or any respondents who experienced distress resulting from the questions asked, were referred to community leaders and local clinics for appropriate care.

Data collectors were able to reach 185 out of 186 sampled clusters. Out of 3649 households that were approached for inclusion in the survey, 3,562 households agreed to participate, for a response rate of 98%

The data collection team for EBRMS 2019

DATA ANALYSIS

Data were double entered into Epi Info 7 by two independent data entry personnel between January and March 2020. Data were checked for accuracy and consistency from April through July 2020.

Descriptive statistics were calculated as part of a joint analysis conducted by the HISWG and researchers from Queen's University. All statistics were pooled across the areas in which the survey took place. This may obscure more regional variations which likely exist, given the widely variable levels of health service availability and heterogeneous political realities faced by different ethnic communities.

LIMITATIONS

The survey design did not facilitate reporting of results for sub-populations, such as those defined by State/Region or by ECBHO service coverage areas. The sampling strategy permitted estimation of mean (average) parameters for the entire population. These mean estimates may or may not represent actual conditions in any of the target populations. Because the survey used a retrospective design, all questions asked of respondents were subject to potential recall bias. Recall periods for most questions were for the past 12 months, with the following exceptions: reproductive health history (two years), child illness and usage of oral rehydration therapy (2 weeks), adherence to hypertension treatment (2 weeks), household dietary diversity (24 hours), and consumption of treated drinking water (24 hours). Definitions for NCDs like hypertension and diabetes are heavily influenced by access to care in general and access to the measurement of blood pressure and blood sugar in particular, and the survey results do not represent the prevalence of hypertension and diabetes in the population.

1. DEMOGRAPHICS

Key findings

- The demographics of ethnic communities in Eastern Burma are characterized by high birth rates, high mortality rates, and short life expectancy.
- 40% of the population in Eastern Burma is under the age of 15.
- The male-to-female ratio was 0.925 among working age adults (15-64 years) due to the gendered nature of migration, recruitment into armed forces, and gender inequities in health and mortality outcomes.

1.1 POPULATION DEMOGRAPHICS

Table 2. Demographics of overall study sample population (n=18,977)

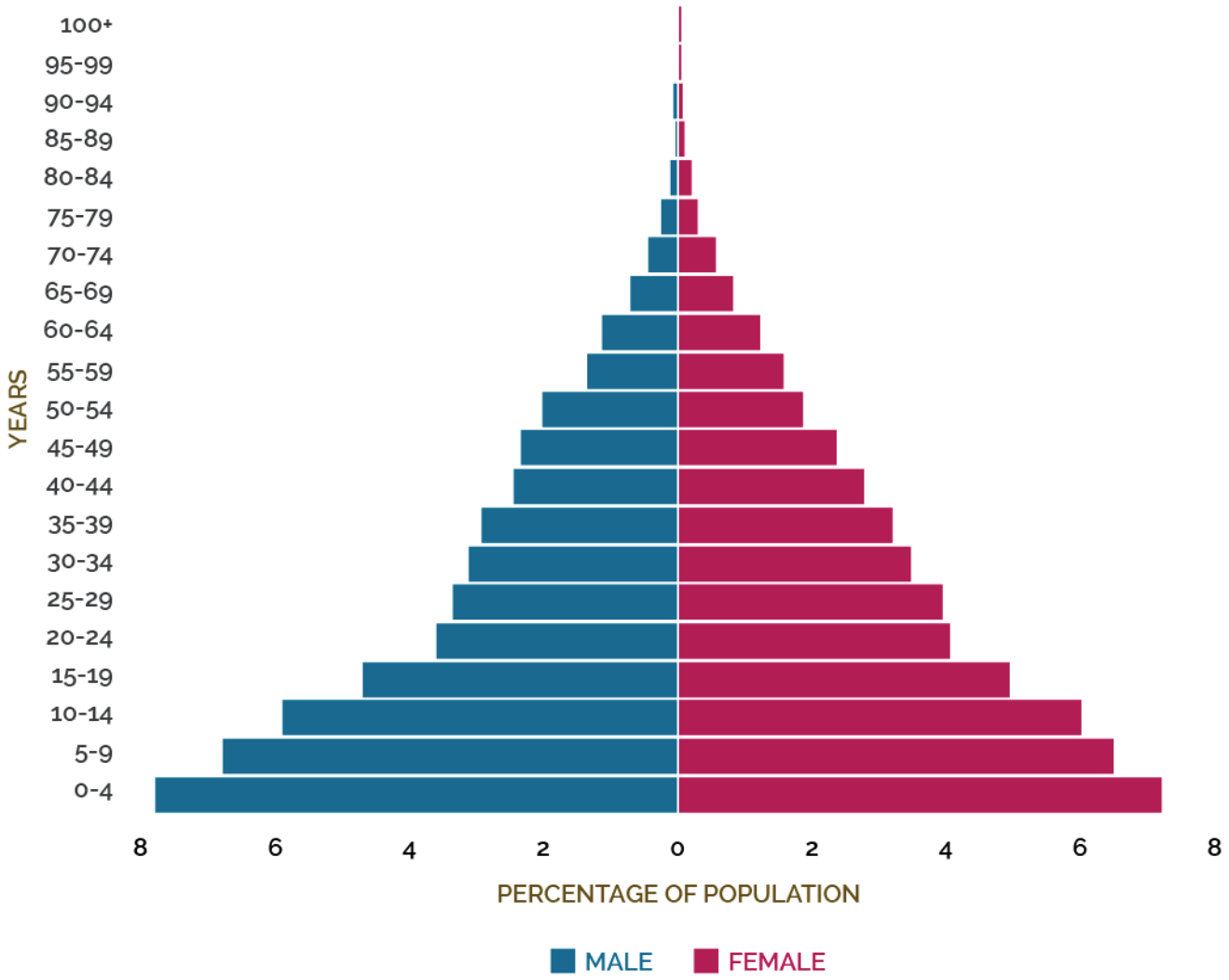
Characteristic	Number (%)
State/region	
Karen	11,616 (61.2%)
Karenni	3,235 (17.1%)
Mon	1,360 (7.2%)
Shan	1,000 (5.3%)
Tanintharyi	975 (5.1%)
Bago-East	791 (4.2%)
Sex	
Male	9,290 (49.0%)
Female	9,610 (50.6%)
Age	
<5 years	2839 (15.0%)
5-14 years	4761 (25.1%)
15-64 years	10593 (56.2%)
65+ years	1125 (3.6%)

The survey included a total of 3,568 households and 18,977 people. The average household size was 5.3 people. Most survey respondents lived in Karen State (61%) and Karenni State (17%) based on the geographical coverage areas of HISWG partners (Table 2).

The age and sex of the surveyed population are represented by the population pyramid (Figure 1). A population pyramid consists of two bar graphs placed back-to-back. Males are plotted on the left, and females are plotted on the right. The pyramid for Eastern Burma is triangular, with a broad base that quickly narrows, indicating that there is a high birth rate, a high mortality rate—particularly of children—and a short life expectancy. This distribution is common in settings where access to basic health care, particularly reproductive health services, preventive health care, and water, sanitation and hygiene (WASH) services, is limited or unavailable.

The survey found that the overall male to female ratio was 0.967, indicating a greater number of females in the population relative to males. The higher number of females relative to males starts at age 10. Among working age adults (15-64 years), the male to female ratio was 0.925. The relative absence of men in these age ranges can be attributed to the gendered patterns of migration and recruitment into armed forces, and to the relatively higher mortality among males compared to females in Eastern Burma.

Figure 1. Population pyramid for ethnic areas of Eastern Burma in 2019 (n=18,906)



1.2 PRIMARY SURVEY RESPONDENT DEMOGRAPHICS

Table 3. Characteristics of primary survey respondents

Characteristic	Percentage
Sex	
Male	34.4%
Female	65.6%
Age	
15-64 years	93.8%
65+ years	6.2%
Ethnicity	
Karen	70.3%
Karenni	16.6%
Burmese	4.3%
Shan	4.1%
Mon	1%
Other	3.8%
Language	
Karen	69.3%
Burmese	34.6%
Karenni	16.9%
Shan	6.7%
PaOh	2.1%
Mon	1.5%
Other	3.5%
Religious affiliation	
Buddhist	68.5%
Christian	29.3%
Animist	1.3%
Muslim	<0.1%
Other	<0.1%
Marital Status	
Married	89.8%
Single	2.9%
Separated/widowed	6.2%
Other	1.1%

Characteristic	Percentage
Educational status	
No schooling/illiterate	35.4%
No schooling/literate	4.7%
Monastery	4.7%
Primary, not completed	20.0%
Completed primary	20.0%
Completed secondary	10.1%
Completed high school	3.5%
University or post-graduate	0.6%
Occupation	
Agriculture	73.3%
Informal vendors	12.3%
Salaried employee	5.3%
Unskilled labor	38.8%
Handicraft	4.5%
Remittance	10.0%
Family support or social welfare	2.8%
Pensions	0.4%
Other	1.2%
Self-employed	2.5%
No income	2.1%
Average monthly income (MMK)	
<75,000	71.1%
75,000 – 149,000	17.7%
150,000 – 299,000	7.3%
>300,000	3.9%

The demographics of the household's primary respondent reflects the age structure and gendered nature of work and migration in Eastern Burma. Two-thirds of the primary survey respondent were women (Table 3). In these settings, men and boys who live in the household are more likely to be working outside of the home during the day compared to women and girls. Older adults (age >65 years) were over-represented as the primary survey respondent because they were more likely to be at home at the time of data collection compared to working age adults.

Issues of ethnicity and sociolinguistic self-identity are complex in Burma. Survey respondents were asked to report their primary ethnic identity, but in reality, many people self-identify as belonging to multiple ethnic groups due to inter-marriage over generations. Two-thirds of respondents reported speaking one language, 30% spoke two languages, and 3% spoke three or more languages. Karen, Burmese, and Karenni languages were the most common language groups spoken in the study area. The majority of respondents were Buddhist (69%) or Christian (29%).

Diversifying sources of income is an important strategy to reduce household economic vulnerability. Respondents reported all of the primary sources of income for their household. Overall, agriculture (73%) and unskilled labor (39%) were the most common sources of household income. These two sources include working on farms, plantations, or orchards, fishing, animal husbandry, making charcoal, and other forms of day labor. 57% of households relied on only one income source, of which 65% engaged in agriculture and 19% engaged in unskilled labor. Over a third of households (35%) relied on two income sources, and 8% relied on three or more income sources. 1 in 10 households relied on remittances from abroad. Most respondents (71%) had a low monthly income of less than 75,000 MMK (approximately US$50[4]).

[4] 1550 MMK = $1USD on May 15, 2019 (https://www1.oanda.com/currency/converter/)

2. MIGRATION

Key findings

- Ethnic communities in Eastern Burma had a high net rate of out-migration, with a ratio of 5:1 for all migration and 8:1 for international migration.
- Work was the primary "push" and "pull" factor for both in- and out-migration for both men and women.

The survey assessed patterns of migration within the State, within Burma, and across borders during the year prior to the survey. Out of the total survey sample population, 1208 (6.4%) individuals had migrated into or out of the community in the past 12 months, with 1.1% migrating into the community and 5.3% migrating out of the community.

In the EBRMS 2013, the ratio of out-migration to in-migration was 6:1 overall and 29:1 for international migration.[16] Similar to the findings of EBRMS 2013, households in 2019 were characterized by higher rates of outmigration (5:1 overall) though the imbalance was less striking for international migration (8:1). Given that employment was the primary driver for all internal and international migration for both sexes, this suggests that livelihood opportunities within Burma improved between 2013 and 2019.

Working age adults made up 80% of all in-migrants and 85% of all out-migrants (Table 4). Men and boys made up almost 60% of all out-migrants. Women and girls made up just over half of all in-migrants (54%), which reflects a greater number of girls than boys in the <15 year old age group moving into the community.

Table 4. Migration by sex and age

	In-migration		Out-migration	
Age Group	Male	Female	Male	Female
<15	15	24	66	71
15-64	80	83	496	360
65+	0	3	1	1
Not reported	0	0	7	1
Total population	95	110	570	433

The primary reason for migrating differed by gender. Men and boys were more likely to migrate for work than women and girls (Table 5). Women and girls were more likely to migrate to pursue educational opportunities than men and boys.

Table 5. Reason for migration, with numbers and percentages disaggregated by sex

	In-migration		Out-migration	
Reason	Male	Female	Male	Female
Work	56 (58.9%)	50 (45.5%)	357 (62.6%)	218 (50.3%)
Education	16 (16.8%)	33 (30.0%)	142 (24.9%)	160 (37.0%)
Family	9 (9.5%)	12 (10.9%)	11 (1.9%)	19 (4.4%)
Marriage	7 (7.4%)	8 (7.3%)	35 (6.1%)	23 (5.3%)
Insecurity	3 (3.2%)	1 (0.1%)	6 (1.1%)	1 (0.2%)
Refugee return	1 (1.1%)	4 (3.6%)	3 (0.5%)	3 (0.7%)
Other	1 (1.1%)	0 (0.0%)	11 (1.9%)	3 (0.7%)
Not reported	2 (2.1%)	2 (1.8%)	5 (0.9%)	6 (1.4%)
Total	95	110	570	433

The place of origin for those who migrated into the household was similar for men, boys, women, and girls (Table 6). About half (53%) of all individuals who migrated into the household came from another village within the same state, which is consistent with EBRMS 2013 and a national survey of internal migrants, which found that within-State migration was common in ethnic border regions.[17] One third (33%) of individuals who migrated into the household came from Thailand.

About 1 in 4 out-migrants went to another village within the same state, and over half (57%) left their household to go to Thailand. The destination for those who migrated out of the household differed by sex. For out-migration, a higher percentage of women and girls moved within the same state (31% vs. 22% for men and boys), whereas a higher percentage of men and boys moved to Thailand (57% vs. 50% for women and girls).

Table 6. Origin for in-migration and destination for out-migration, with numbers and percentages disaggregated by sex

	In-migration		Out-migration	
Location	Male	Female	Male	Female
Within the state	53 (55.8%)	55 (50.0%)	123 (21.6%)	135 (31.2%)
Within Burma	11 (11.6%)	10 (9.1%)	106 (18.6%)	66 (15.2%)
Thailand	28 (29.5%)	40 (36.4%)	325 (57.0%)	216 (49.9%)
Other country	1 (1.1%)	2 (1.8%)	15 (2.6%)	11 (2.5%)
Not reported	2 (2.1%)	3 (2.7%)	1 (<1%)	5 (1.2%)
Total	95	110	570	433

3. NUTRITION AND HOUSEHOLD DIETARY DIVERSITY

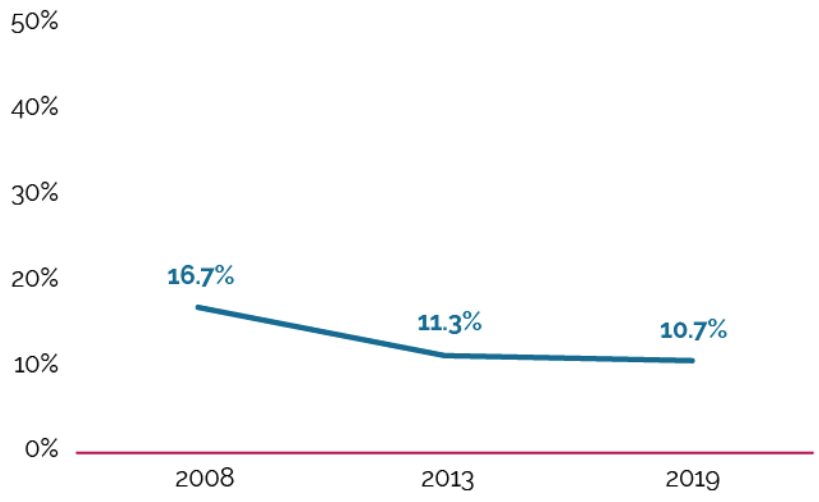
Key findings

- 1 in 10 women was undernourished according to MUAC.
- The average household dietary diversity score was between 4 and 5, indicating that the average household has limited socioeconomic ability to achieve adequate caloric and protein intake.
- Consumption of protein-rich foods in the 24 hours before the survey was especially low.

3.1 MATERNAL NUTRITIONAL STATUS

During the survey, all women of reproductive age (15-49 years) who were present in the household at the time of data collection were screened for malnutrition by measuring the mid-upper arm circumference (MUAC). The 22.5 cm threshold was used as an indicator of undernutrition because it is associated with a body mass index (BMI) of less than 18.5 kg/m2. Among approximately 3300 women, 1 in 10 WRA (10.7%) had a MUAC <22.5 cm. Figure 2 shows that the prevalence of maternal malnutrition in the surveyed communities declined between EBRMS 2008 and 2013, but not between EBRMS 2013 and 2019.

Figure 2. Maternal moderate/severe malnutrition between EBRMS 2008 and EBRMS 2019



3.2 HOUSEHOLD DIETARY DIVERSITY

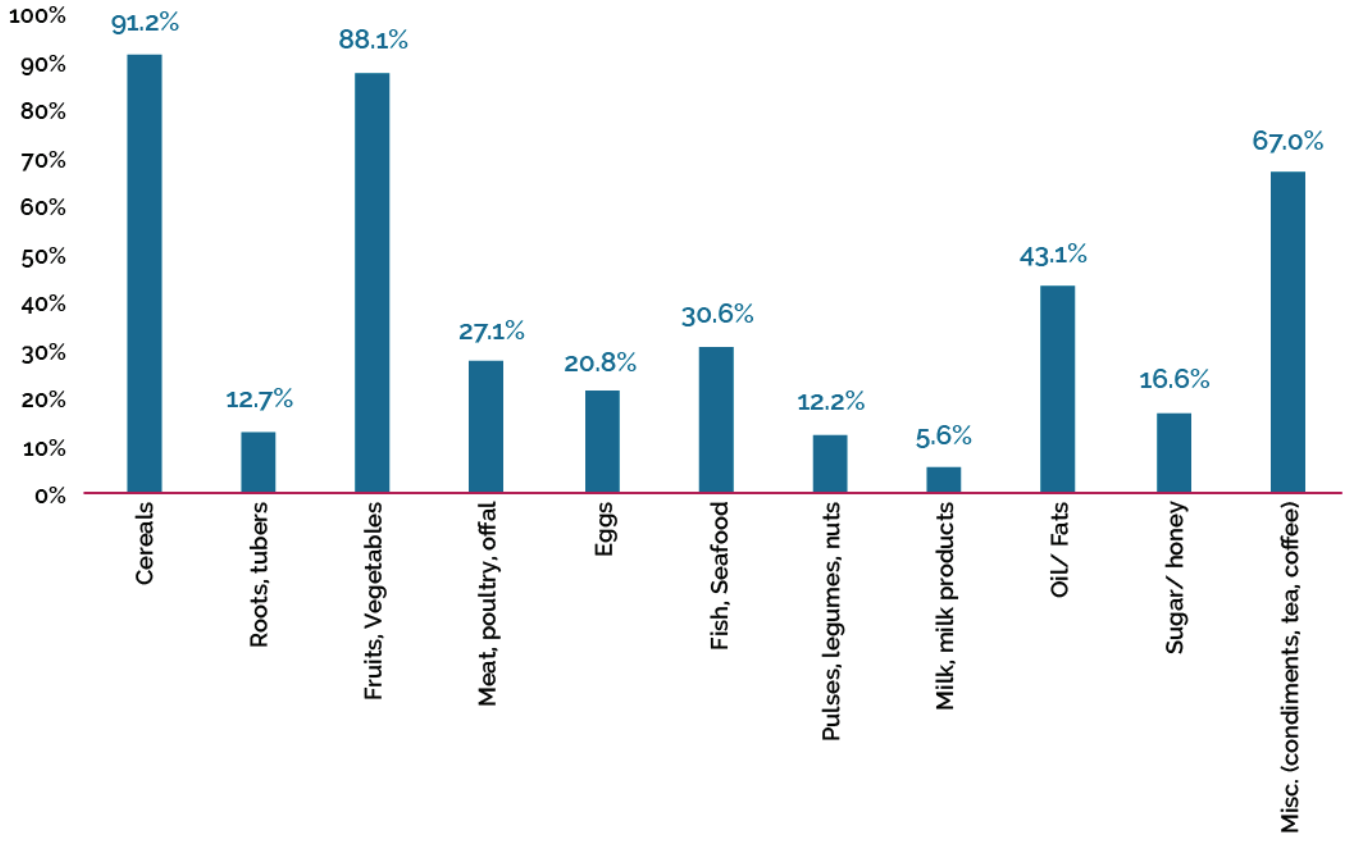
A diverse diet is essential for a number of health and wellness outcomes, including higher birth weight and lower risk of anemia and child malnutrition. The survey used a modified version of the Household Dietary Diversity Questionnaire (HDDQ).[18] The HDDQ measures the number of food groups consumed

by a household in the 24 hours preceding the survey. Household dietary diversity is a proxy measure of the socioeconomic status of the household, which serves as an indicator of the household's access to enough quality food to meet all household members' nutritional requirements. The number of food groups to serve as a threshold for "adequate" household dietary diversity is context dependent. The Myanmar Micronutrient and Food Consumption Survey 2017-18 used a threshold of 6 or more food groups to indicate adequate dietary diversity.

In the modified questionnaire for EBRMS 2019, the HDDQ's separate indicators for vegetables and fruits were combined into a single indicator, reducing the maximum score from 12 to 11. With this modification, the average household dietary diversity score was 4.1 out of 11. However, even under the most conservative assumption that every household that consumed vegetables also consumed fruit in the previous 24 hours, the maximum HDDS would be 5.0 out of 12. This indicates that the average household has limited socioeconomic ability to achieve adequate caloric and protein intake.

Nearly all households consumed rice (91%) and vegetables/fruits (88.1%) in the previous 24 hours (Figure 3). For protein sources, 31% of households consumed fish or seafood; 27% consumed meat, poultry or offal; 21% consumed eggs; and 12% consumed pulses, legumes, and nuts.

Figure 3. Percentage of households that consumed food groups in past 24 hours



4. MATERNAL AND REPRODUCTIVE HEALTH

Key findings

• Access to ANC has improved since 2013 but coverage is still low, with 1 in 3 women accessing no ANC at all during pregnancy and only 1 in 4 women accessing 4 or more ANC contacts.

• Almost 80% of women delivered their child at home, but access to a skilled birth attendant has improved to about 40%.

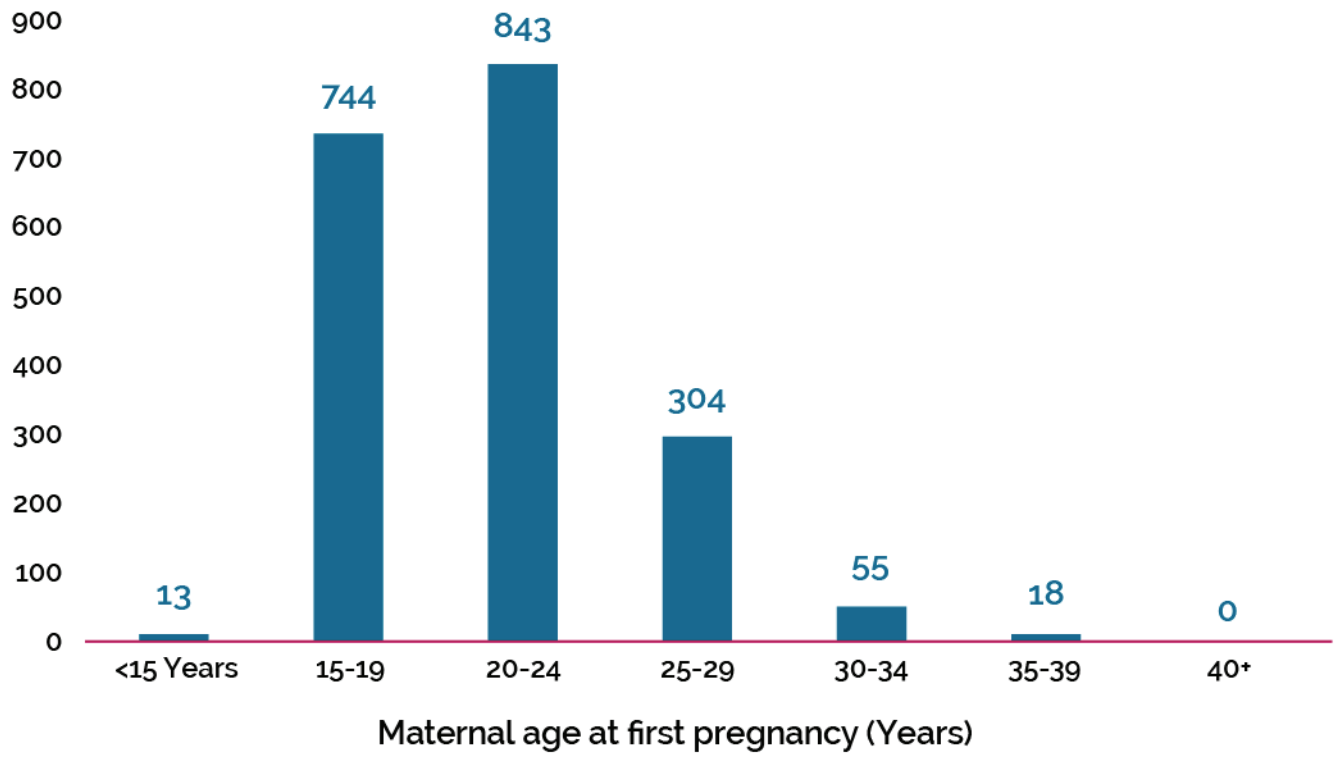
• Utilization of modern family planning methods and the percentage of women who have met family planning needs have improved since 2013, but are lower than national statistics.

Across all 3,562 households in the survey, WRA (15-49 years) made up a quarter (24.4%, n=4635) of the overall sample population. Among WRA, 6.0% of women (n=278) reported that they were pregnant at the time of the survey.

Married WRA from selected households who were pregnant or who had given birth in the two years preceding the survey were asked questions about family planning and healthcare seeking throughout pregnancy, delivery, and the postnatal period. Section 4 of the survey results is based on findings from a total of 2,162 women who met the eligibility criteria, were present in the household at the time of data collection, and consented to participate in the study. The findings do not represent single or unmarried women and adolescent girls.

Young maternal age is a significant risk factor for both women and their infants. Adolescent mothers (ages 10-19 years) are at higher risk of eclampsia, puerperal endometritis, and systemic infections. The infants of adolescent mothers are at higher risk of low birth weight, preterm delivery, neonatal mortality, and severe neonatal conditions.[19] For WRA in selected households, the median maternal age at the time of her first pregnancy was 20 (IQR 18, 23) years (Figure 4). 38.3% of women experienced their first pregnancy during adolescence, with over 1 in 10 (12.9%) women experiencing their first pregnancy before age 18. Compared to national statistics, women and girls in ethnic communities in Eastern Burma experience their first pregnancy at a younger age. In Burma, women first give birth at a median age of 24.7 years and 7% give birth before age 18.[20]

Figure 4. Maternal age at first pregnancy



4.1 ANTENATAL CARE

Provision of skilled care to mothers during pregnancy, birth, and the first month of life greatly contributes to maternal and child survival. Antenatal care (ANC) can help prevent, detect, and treat conditions that pose a potential risk to the life of a pregnant woman and her baby. The Every Newborn Action Plan aims to ensure coverage of at least four ANC contacts during pregnancy.[21] The WHO recommends eight ANC contacts to optimize perinatal outcomes and women's experience of care.[22]

Among married WRA who were pregnant or delivered within the 2 years prior to the survey, 1 in 3 women did not access any ANC during their pregnancy (Figure 5). 1 in 4 women (26.4%) were able to access 4 or more ANC visits during pregnancy. Only 5% of women accessed the WHO recommended number of 8 or more ANC contacts. The percentage of women who accessed ANC during pregnancy increased between EBRMS 2013 and EBRMS 2019, but coverage of quality ANC can still be improved (Figure 6).

Figure 5. Total number of ANC contacts during pregnancy

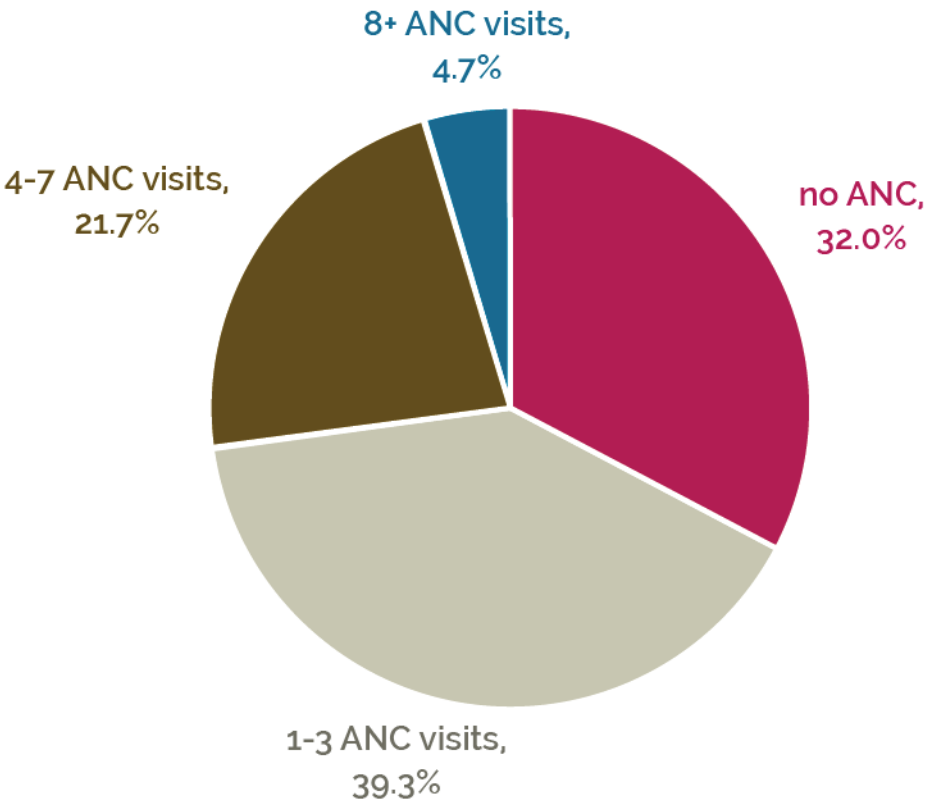
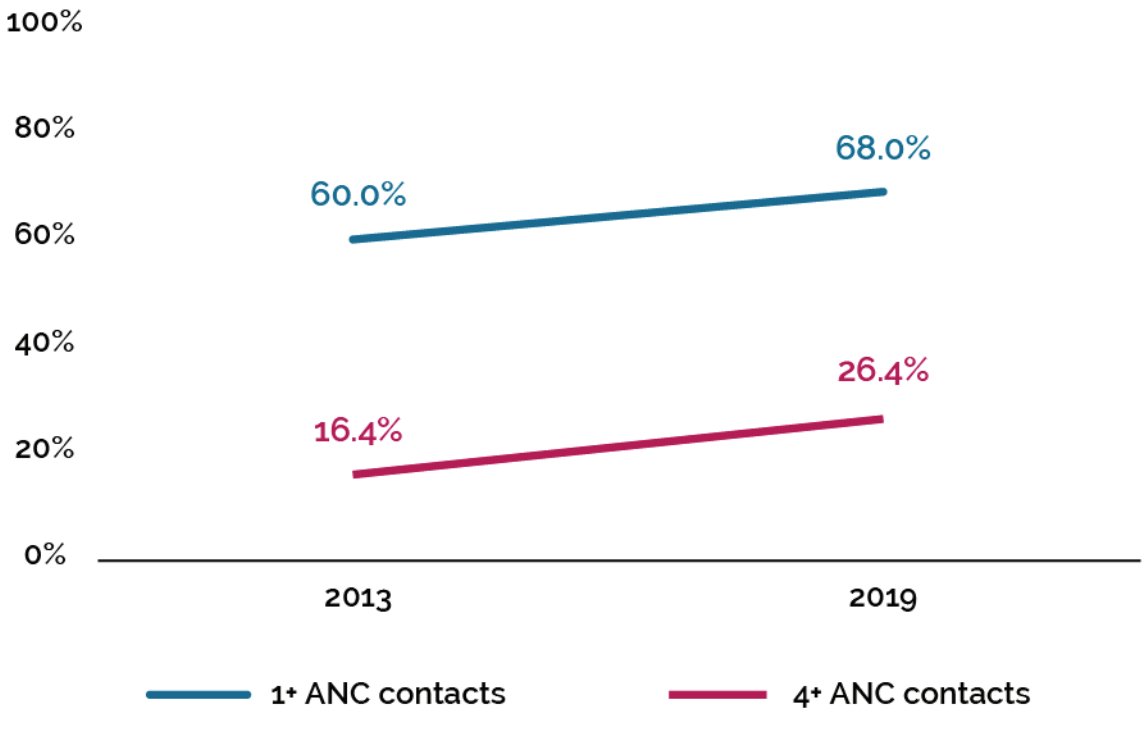
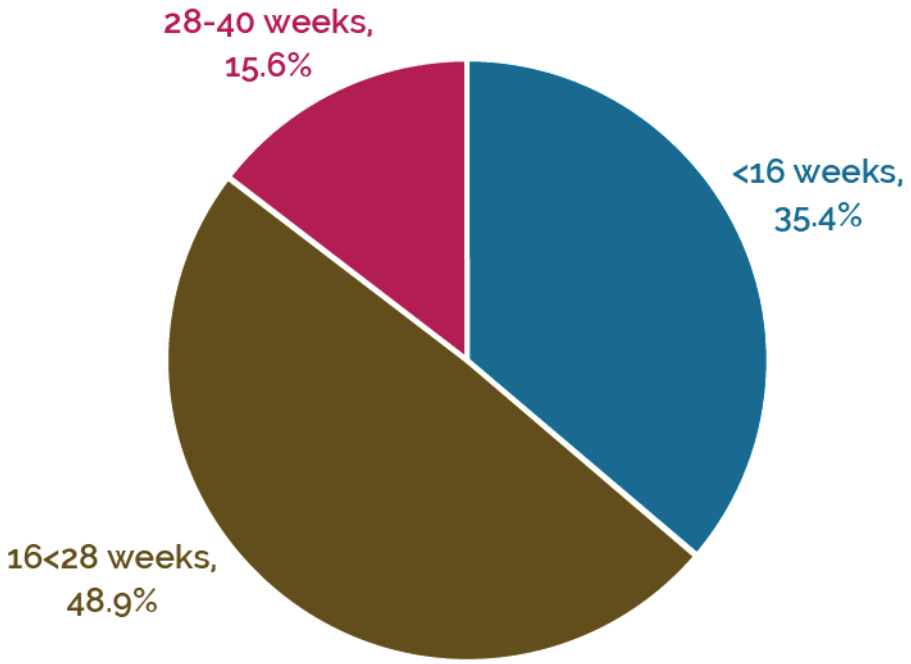


Figure 6. Percentage of women who accessed 1+ and 4+ ANC contacts in EBRMS 2013 and EBRMS 2019



Timely initiation of ANC is important to ensure early detection of problems in pregnancy that increase the risk of adverse pregnancy outcomes like low birth weight, stillbirth, intrauterine fetal death and other complications. The WHO currently recommends at least one ANC visit during the first trimester (before 12 weeks).[22] Among women who accessed ANC at least once during their most recent pregnancy, 1 in 3 women accessed ANC before 16 weeks' gestation, half of women accessed ANC between 16 and 28 weeks' gestation, and about 16% accessed ANC very late in pregnancy at 28 weeks or later (Figure 7).

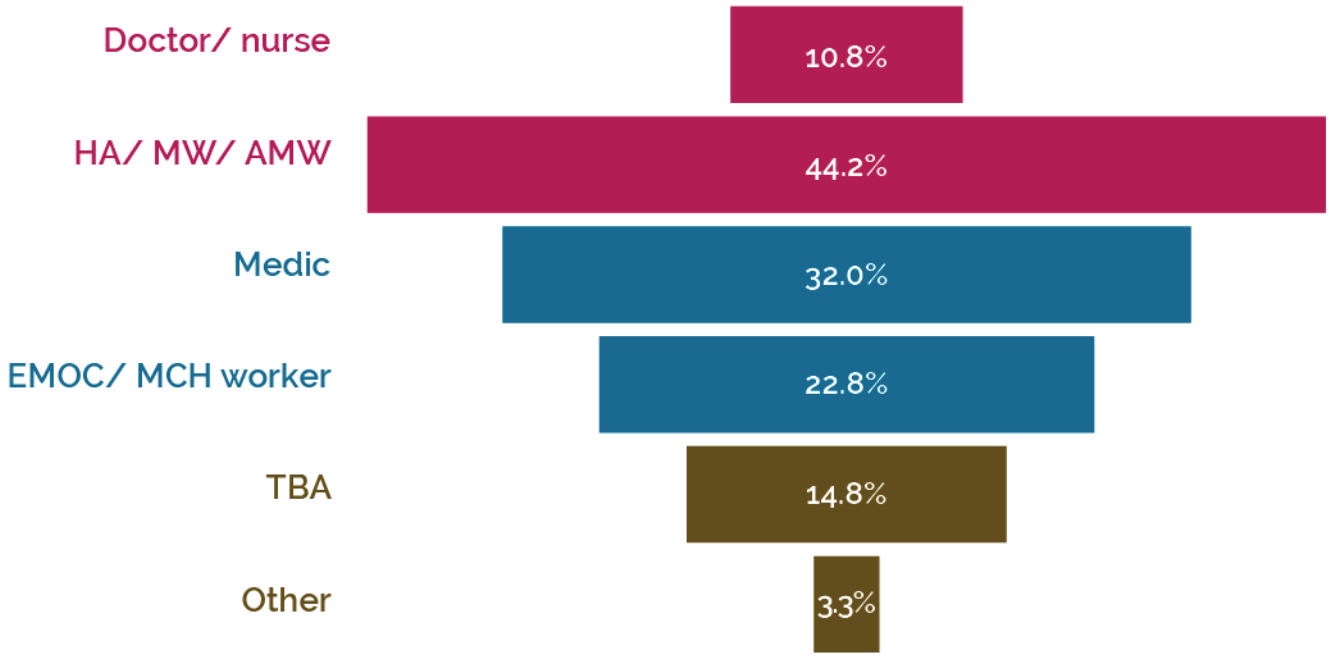
Figure 7. Timing of first ANC contact



A skilled health care provider will ensure that mothers receive essential services throughout pregnancy, delivery, and the postnatal period. A skilled provider is someone who has been educated and trained in the skills needed to manage normal (uncomplicated) pregnancies, delivery, and the postnatal period, and to identify, manage, and refer complications in women and newborns. In Eastern Burma, skilled providers in the government health system include doctors, nurses, health assistants (HA), midwives (MW), or auxiliary midwives (AMW). Skilled providers in the EHO health system include medics, emergency obstetric care (EmOC) workers, and maternal and child health (MCH) workers. EmOC and MCH workers receive specific training to support women throughout the perinatal period.

In these settings, women often receive care from multiple types of healthcare providers throughout different phases of pregnancy. Among women who received at least one ANC contact, 11% of women received care from a government doctor or nurse and 44% of women received care from a government HA, MW, or AMW (Figure 8). 1 in 3 (32%) women received care from an EHO medic, and over 1 in 5 (23%) women accessed care from an EHO EmOC or MCH worker. Women also consulted unskilled traditional birth attendants (15%) and other unskilled providers (3%) during pregnancy.

Figure 8. ANC providers for women in Eastern Burma



ANC includes a number of critical interventions to protect the health and wellbeing of mothers, including:

- Iron and folic acid supplementation for at least 90 days to prevent maternal anemia, puerperal sepsis, low birthweight, and preterm birth
- Counseling about danger signs to increase awareness of complications or emergencies that may occur during pregnancy, delivery, or the postnatal period
- At least one dose of deworming medication to reduce the risk of morbidity due to worms including anemia and malnutrition
- Two doses of tetanus toxoid vaccines to protect women and prevent neonatal mortality from tetanus.
- Blood pressure measurement to screen for hypertensive diseases in pregnancy

Overall, the coverage of specific ANC services increased from EBRMS 2008 to EBRMS 2019 (Figure 10). Among women who were pregnant within the past 2 years of the 2019 survey, less than half of women received at least 90 days of iron and folic acid supplementation (46.7%) or counseling about danger signs (49.6%; Figure 9). The majority of women received at least one deworming treatment (70.6%), full immunization against tetanus (74.6%), and at least one blood pressure measurement during pregnancy (89.5%).

Figure 9. Types of ANC services received

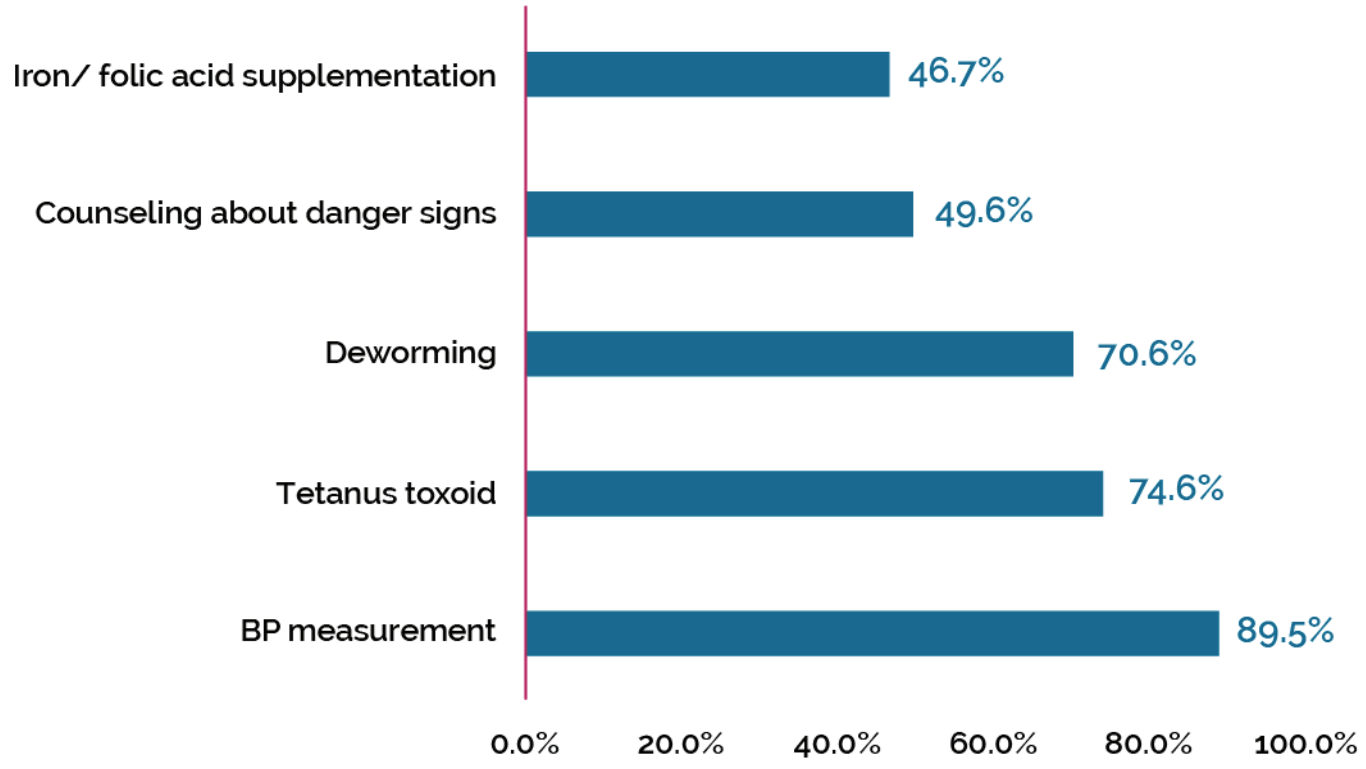
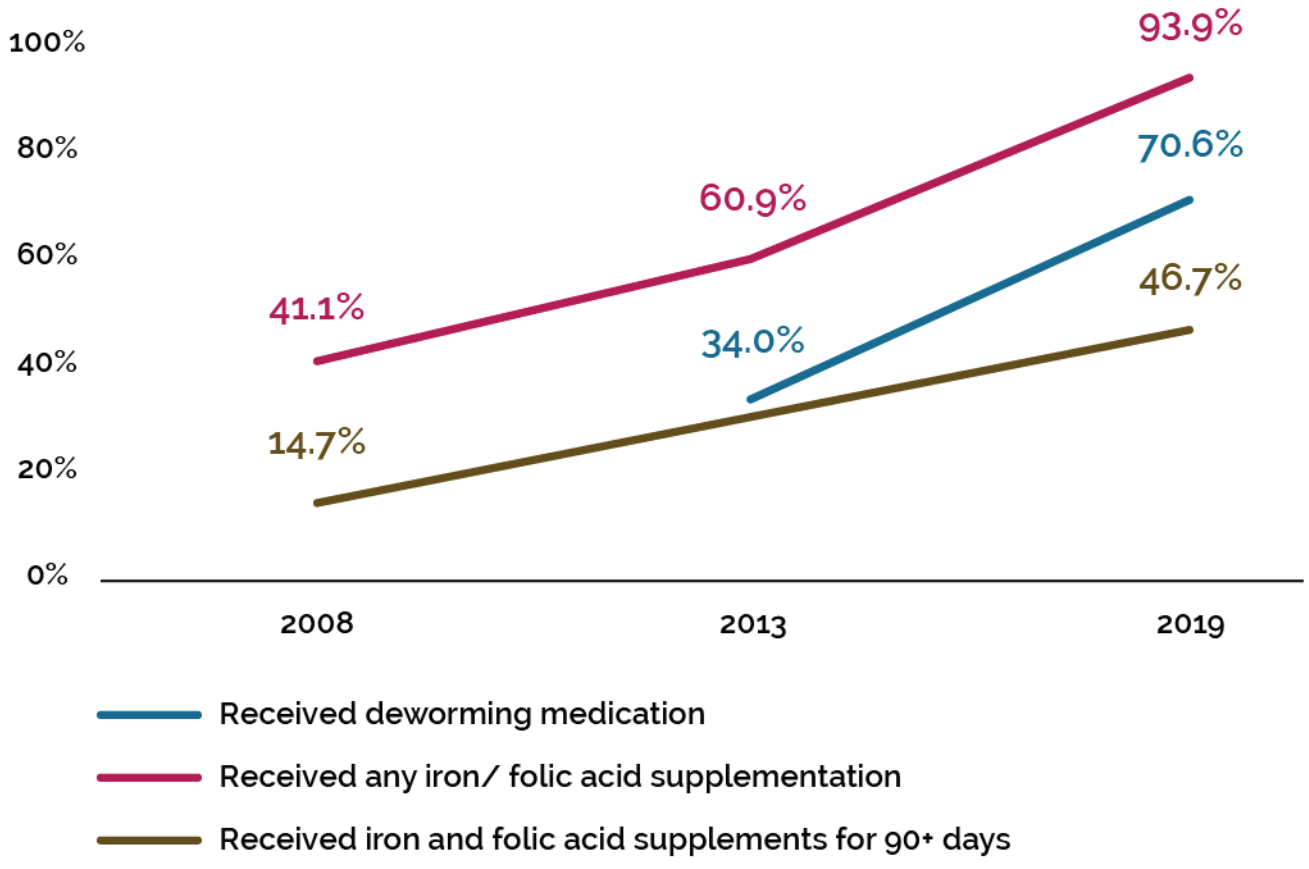


Figure 10. Coverage of ANC services between EBRMS 2008 and EBRMS 2019



4.2 SKILLED BIRTH ATTENDANCE

Among women who delivered in the 2 years prior to the survey, most women (78%) delivered their baby at home (Figure 11). The percentage of women who accessed a skilled birth attendant in the 2 years prior to the survey almost doubled between EBRMS 2013 and EBRMS 2019 (Figure 13). However, coverage of skilled birth attendance remains low, with only about 40% of women having a skilled birth attendant at the time of childbirth (Figure 12).

Figure 11. Place of delivery

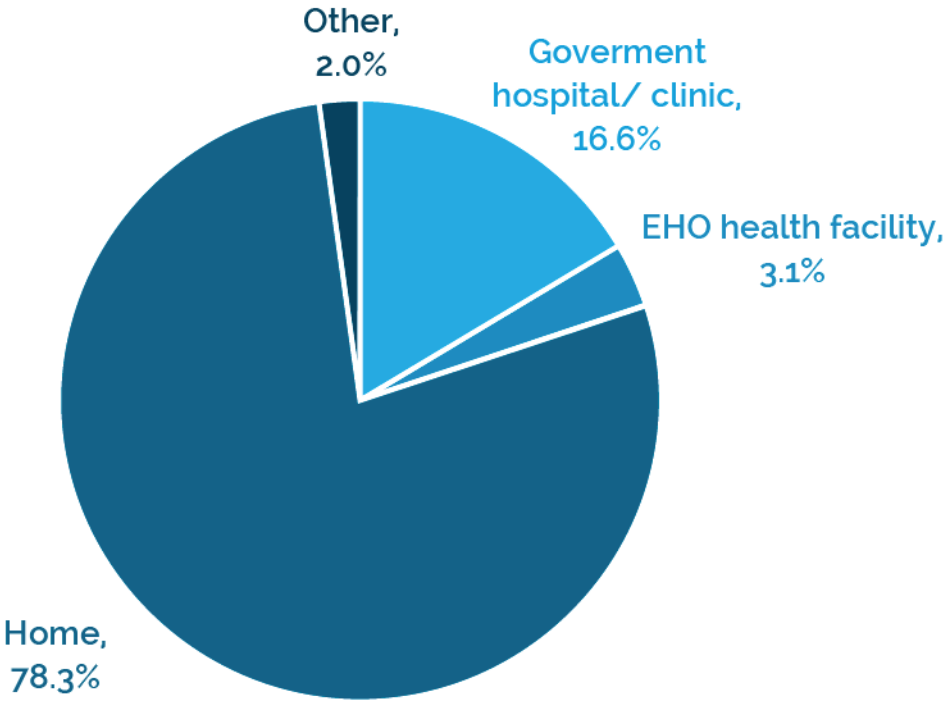


Figure 12. Type of birth attendant

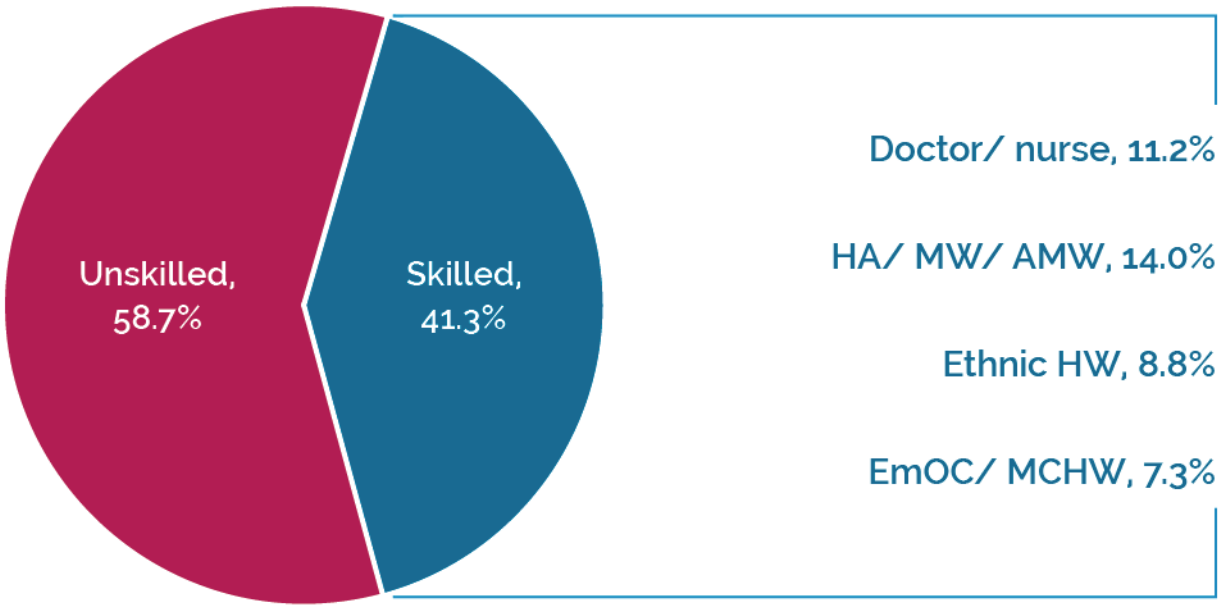
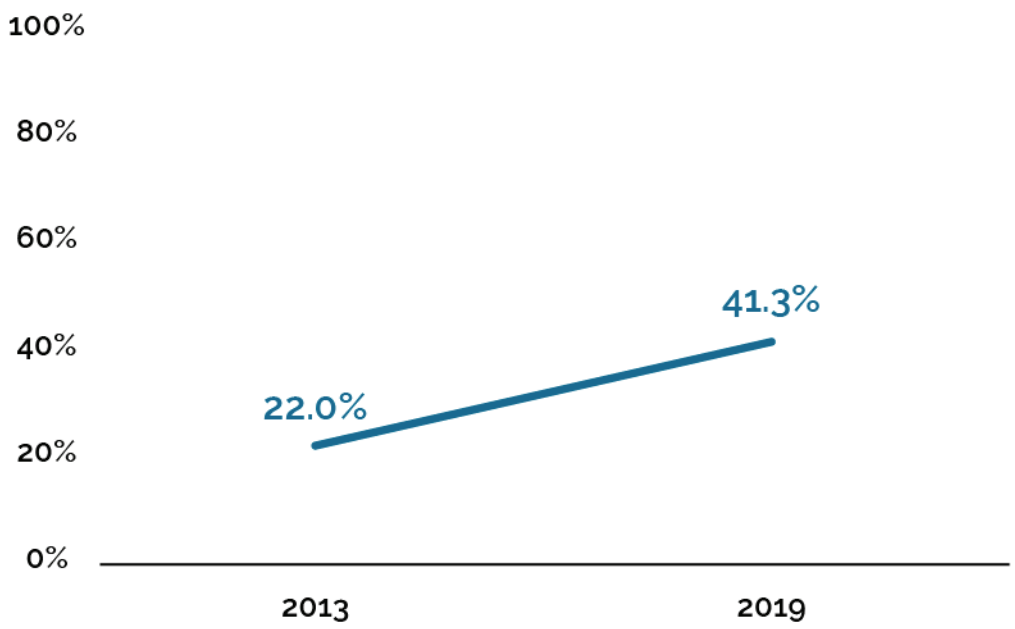


Figure 13. Percentage of WRA who accessed a skilled birth attendant in EBRMS 2013 and EBRMS 2019



4.3 POSTNATAL CARE

In the first six weeks following delivery, postnatal care (PNC) is important for both the mother and baby. Globally, 60% of maternal deaths and 1 in 3 child deaths occur during the postnatal period.[23,24] The first week of the postnatal period is an especially critical window for maternal and child survival. In low-and-middle-income countries like Burma, approximately 80% of postpartum maternal deaths and 75% of neonatal deaths occur within the first week.[23,24] Therefore, the WHO recommends at least 3 postnatal contacts over the first 6 weeks postpartum, including at least one home visit in the first week after birth.[25] Postnatal care is an opportunity to provide counseling, screen and monitor women and newborns for danger signs, provide treatment, and refer emergency cases to higher levels of care.

In Eastern Burma, nearly 60% of women had no postnatal care at all. 40% of women had at least 1 visit, but only 9% of women accessed the WHO recommended number of 3 PNC visits.

4.4 FAMILY PLANNING

Family planning allows individuals to determine the number and spacing of their children, taking into account health and economic considerations. Access to family planning contributes to a 44% reduction in maternal deaths and a 21% reduction in the under-five mortality rate. When births are spaced less than two years apart, the infant mortality rate is 45% higher than when births are 2-3 years apart.[26]

According to the most recent census in 2014, Myanmar has the second highest maternal mortality rate of 282 per 100,000 live births among ASEAN.[1] Evidence from previous EBRMS demonstrated even higher maternal mortality rates in ethnic areas of Eastern Burma compared to national statistics.[13] Family planning prevents pregnancy-related health risks for women and adolescent girls. The pregnancy related mortality ratio was 227 deaths per 100,000 live births in the Myanmar Demographic and Health Survey (DHS) 2015-16. In a country where abortions are illegal, the Myanmar DHS also found that abortion-related complications was the second leading cause of maternal death.[20]

Beyond the importance of family planning for women's health and safety, family planning is important from a human rights perspective. By allowing women to make decisions about her fertility, family planning gives them opportunities to attain greater socioeconomic status through continued education and employment.

Married WRA who were not pregnant at the time of the survey were asked about what type of family planning that they used across a range of modern and traditional methods. Modern methods include the oral contraceptive pill, female and male sterilization, intra-uterine devices (IUD), injectables like depot medroxyprogesterone acetate, implants, and male and female condoms. Traditional family planning methods include periodic abstinence, withdrawal, lactational amenorrhea, and abstinence.

Overall utilization of any family planning method among married WRA was 38%, with 37% using a modern method and 1% relying on traditional methods. Utilization was low compared to national statistics that report 52% utilization of any family planning method and 51% utilization of modern methods.[20]

Unmet need for family planning is defined as the proportion of sexually active women of reproductive age who want to either limit or space their next birth for at least two years, but are not using any contraceptive method. While the unmet need for family planning among married women in Eastern Burma has improved since the EBRMS 2013 was conducted, the unmet need for family planning remains high at 30%, compared to 16% nationwide (Figure 14).[20] Figure 15 shows an overall trend of increasing utilization of FP among WRA and a declining unmet need for FP between EBRMS 2008 and EBRMS 2019.

Figure 14. FP utilization and unmet need among married WRA who self-reported fertility intentions (n=1856)

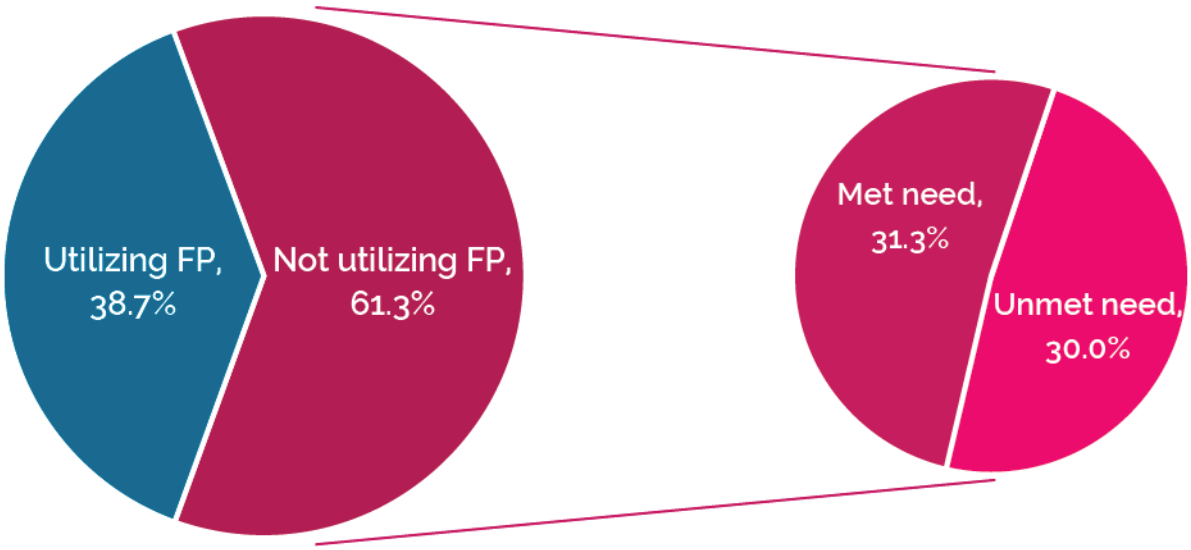
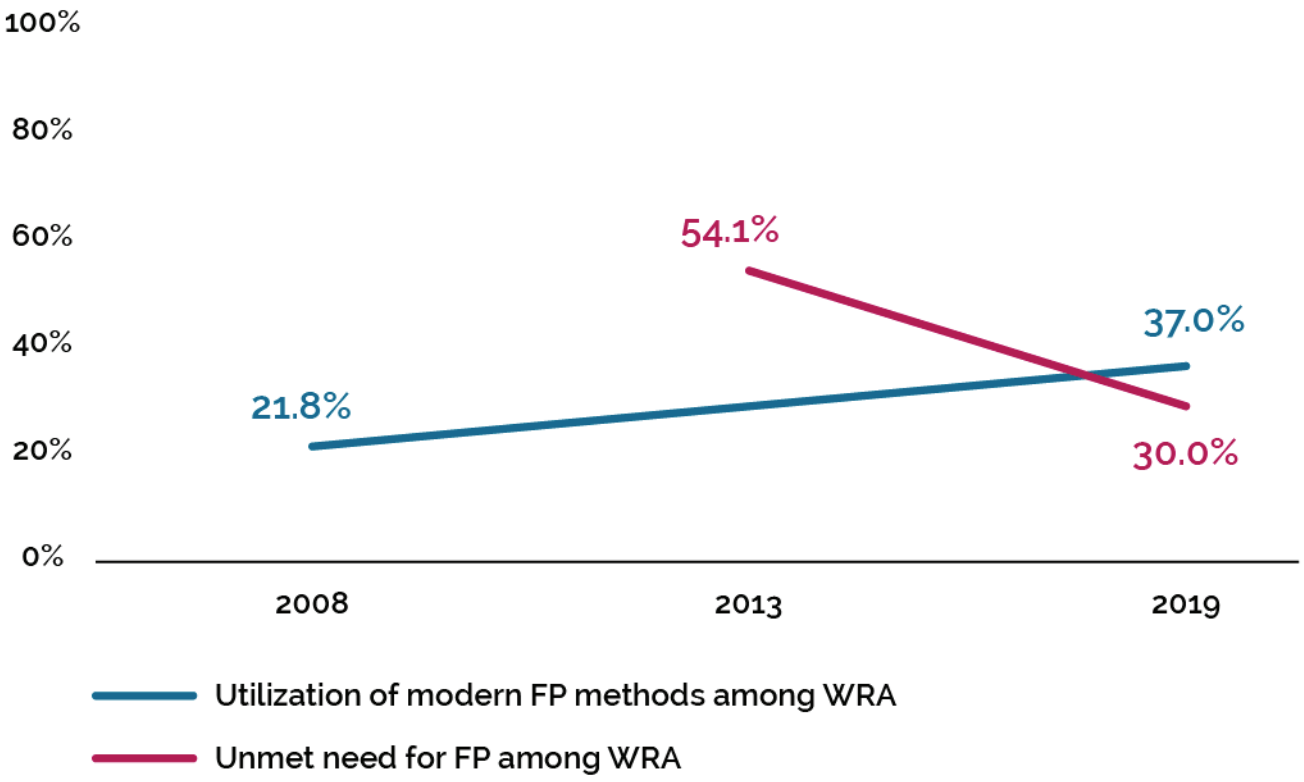
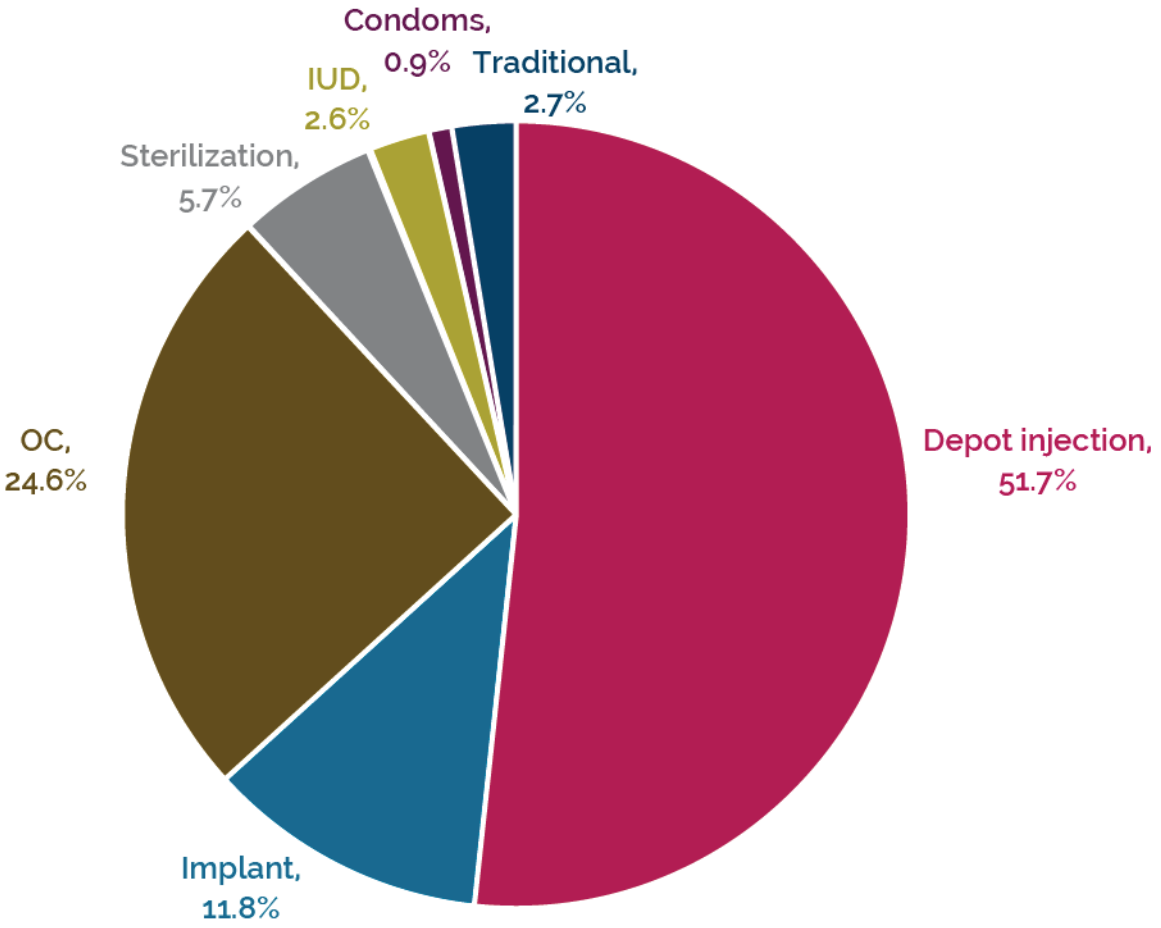


Figure 15. Utilization of FP and unmet FP need between EBRMS 2008 and EBRMS 2019



Among married WRA who used family planning, most women relied on short-term methods like injections (52%), the OC pill (25%), condoms (1%), and traditional methods like periodic abstinence (3%; Figure 16). For long-term family planning methods, 12% used implants, 6% used sterilization, and 3% used an IUD.

Figure 16. Contraceptive method mix among married WRA in Eastern Burma who used any family planning method



5. HEALTH STATUS

Key findings

• Over 1 in 10 children had experienced diarrhea in the 2 weeks prior to the survey. Approximately half were treated with oral rehydration salts.

• Coverage of NCD screening and management services was limited in Eastern Burma.

• Survey respondents, who were predominantly female, reported high consumption of tobacco products and exposure to second-hand smoke.

5.1 RECENT ILLNESS AMONG ALL HOUSEHOLD MEMBERS

Across all ages, 1866 household members self-reported having a fever in the past 2 weeks, 1644 self-reported having acute respiratory infection (ARI), and 744 self-reported having diarrhea (Table 7).

Diarrhea, fever, and ARI are among the leading causes of death for children under five. Among children under 5, over 1 in 10 children (12%) had experienced diarrhea in the two weeks prior to the survey. Among children who had diarrhea, over half (56%) had been treated with oral rehydration salts. For both ARI and fever, 1 in 4 children had experienced symptoms in the two weeks prior to the survey.

Table 7. Illness among all household members in past 2 weeks by sex and age

	Fever			ARI			Diarrhea		
Age	M	F	Total	M	F	Total	M	F	Total
0-4	26.0%	25.1%	25.5%	23.1%	22.4%	22.7%	12.8%	11.4%	12.1%
5-14	11.7%	10.8%	11.3%	9.6%	9.5%	9.6%	4.4%	3.9%	4.1%
15-24	4.6%	4.7%	4.7%	4.3%	3.5%	3.9%	1.4%	1.4%	1.4%
25-49	4.7%	5.5%	5.1%	3.7%	4.7%	4.2%	1.5%	2.1%	1.8%
50-64	5.9%	7.9%	6.9%	6.8%	8.1%	7.4%	2.2%	2.3%	2.3%
65+	7.1%	8.3%	7.8%	9.4%	8.0%	8.6%	2.3%	3.2%	2.8%
Total	10.1%	9.8%	9.9%	8.9%	8.6%	8.7%	4.1%	3.8%	3.9%

5.2 NON-COMMUNICABLE DISEASES

Data on the contribution of non-communicable diseases (NCDs) to morbidity and mortality are limited in Burma, but clear trends show an increasing burden over time. The proportion of deaths attributed to NCDs nationally has increased from 47% in 2000 to 68% in 2017, with 25% of deaths linked to cardiovascular disease, 13% of deaths to cancer, 8% of deaths to chronic respiratory diseases, 4% of deaths to diabetes, and 18% to other NCDs.[27] The risk of premature death from NCDs for males and females between 30-70 years of age in Burma is 27% and 21%, respectively.[27] The capacity and resources to screen, diagnose, and manage NCDs are limited in remote areas of the country.

5.2.1 HYPERTENSION

In the EBRMS 2019 survey population, 3 out of 4 (72%) respondents had ever had their blood pressure measured by a health provider. Among respondents who had ever been screened by a health provider, 23% had been told by a health provider that they had hypertension. This proportion is heavily influenced by access to care in general and to blood pressure measurement in particular, and does not represent the prevalence of hypertension in the population. 71% of people who were diagnosed were prescribed medication to manage hypertension, but only 62% of those who were prescribed had actually taken the medication within the past two weeks. In addition, almost 1 in 5 people (18%) who were diagnosed with hypertension reported taking traditional herbal remedies to help manage their blood pressure. Nationally, 30.1% of adults aged 25-64 years have hypertension, of which only 48% have been screened and diagnosed and 27% are under treatment.[28] In the EBRMS survey area, a quarter of adults had never been screened for hypertension, and efforts to include blood pressure screening as a routine measure could be strengthened. More data are needed to better understand the incidence and management of hypertension across the lifespan in ethnic communities in Eastern Burma.

Blood pressure measurement by trained ECBHO workers.

5.2.2 DIABETES

Less than 1 in 5 (17%) primary survey respondents had ever had their blood sugar measured by a health provider. Among people who had ever been screened, 7% had been diagnosed with raised blood sugar. Just over half (56%) of people who had been diagnosed with raised blood sugar were taking insulin to manage their diabetes. 1 in 4 (24%) people who were diagnosed with elevated blood sugar were also taking traditional remedies. As for hypertension, the prevalence of diabetes based on self-report is influenced by access to care in general and to blood glucose screening in particular - both of which are limited in ethnic areas of Burma. More data are needed to understand the true prevalence of diabetes in these communities.[29]

5.2.3 RISK FACTORS FOR NCDS

Tobacco and alcohol use are major behavioral risk factors for NCDs, and contribute to the rapid rise in morbidity and mortality from NCDs in Burma.

5.2.3.1 TOBACCO USE

Tobacco smoking is the second leading risk factor for disability and death worldwide.[30] Tobacco use increases the risk of NCDs (cardiovascular disease, cancer, and chronic respiratory disease) as well as other diseases including tuberculosis. In Burma, lung cancer is the most common (11%) of all cancers and the cause of 14.3% of all deaths in Burma. Lung cancer is more likely to affect men, representing 12.8% of new cancer cases in 2020 among males and 9.4% among females.[31]

39% of the primary survey respondents reported that they currently smoke tobacco products. Among people who reported that they smoked, most (93%) reported that they smoked every day. Respondents typically smoked cheroots, which are local filterless cigarettes that are more widely available and less expensive compared to manufactured cigarettes.

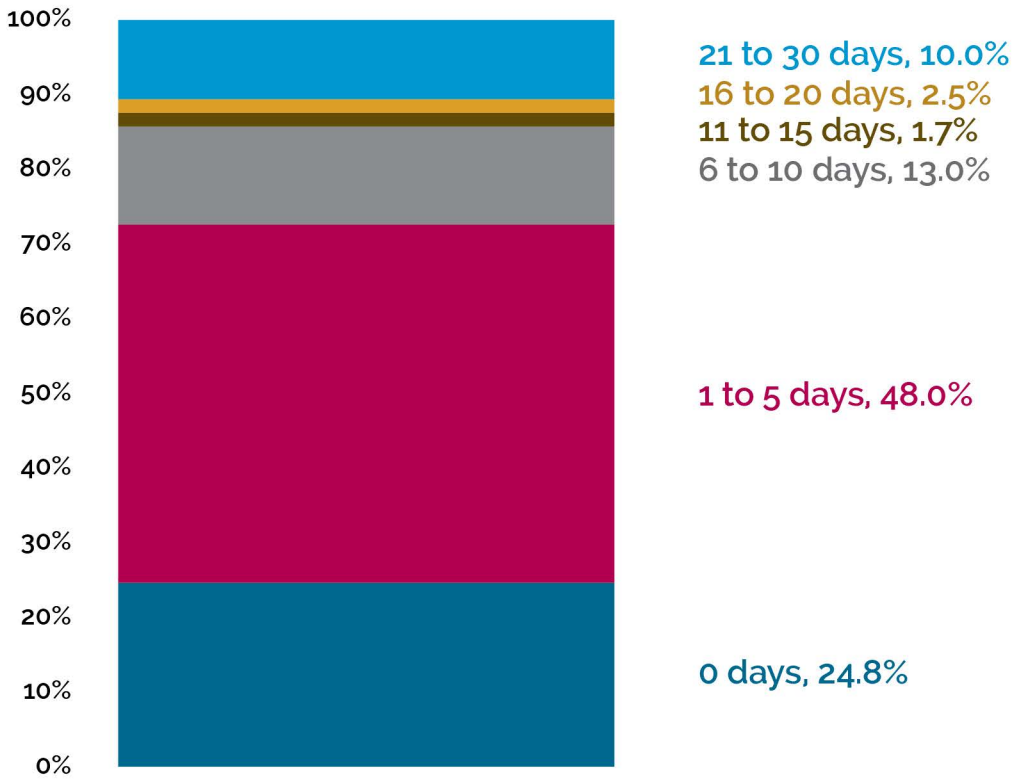
Over half (54%) of households reported that they or someone else smoked inside the house on a daily basis. Secondhand smoke increases the risk of morbidity and mortality for all household members, with particular health concerns for infants, children, and pregnant women.

The majority of household survey respondents (62%) also consumed tobacco as a component of betel quid. Betel quid is composed of area nuts (the fruit of a local palm tree) that are placed in a betel leaf with slaked lime (calcium oxide and calcium hydroxide), and which are typically mixed with dried tobacco leaves. Sometimes artificially flavored tobacco from India and Bangladesh is used to enhance the flavor. The areca nut produces a slight euphoric and relaxing effect similar to nicotine. The stimulant is inexpensive, addictive, and deeply rooted in the culture. However, chewing betel quid is associated with a number of negative health effects. Areca is a class 1 carcinogen, the preparation of areca nuts with lime, tobacco, and other ingredients increases the risk of oral diseases and cancer. Chewing betel quid with tobacco is associated with an increased risk of oral cancer, tooth decay, metabolic disease, cardiovascular disease, and all-cause mortality.[32]

5.2.3.2 ALCOHOL USE

Consuming too much alcohol has negative implications for health, employment, and income. One in three (32.9%) of the primary survey respondents reported consuming any alcohol within the past 12 months. This can be attributed in part to survey respondents being predominantly female, in a context where there are cultural taboos against women and girls consuming alcohol. Among those who consumed alcohol in the last year, almost half of respondents consumed alcohol for 1 to 5 days in the previous month (Figure 17). 1 in 10 respondents consumed alcohol for 21 to 30 days of the previous month.

Figure 17. Average number of days per month that the primary respondent consumed alcohol in the previous 12 months



6. HEALTH CARE ACCESS

Key findings

• ECBHOs remain the primary provider in Eastern Burma, but improved coordination and collaboration through initial convergence approaches has seen an increase in utilization of government sector health providers compared to 2013.

• Access to the nearest health facility by motorcycle or a vehicle has improved since 2013, and survey respondents can typically access the nearest facility in 30 minutes.

• The cost of health care varies by the type of provider, and out-of-pocket costs are extremely high in a setting where the majority of households have an average monthly income of 75,000 MMK (US$50) or less.

6.1 HEALTH CARE SEEKING

62.4% of survey respondents reported that they had sought healthcare in the past 12 months, primarily for fever (40.9%) and general illness (29.5%). Similar to the findings from EBRMS 2013, EHO clinics and community-based providers were the most commonly reported source of health care in EBRMS 2019 (Table 8).

Table 8. First source of health care for primary survey respondents who sought care in the previous 12 months

Provider	%
Private clinic	5.5%
Private hospital	2.8%
Government clinic (SC/RHC)	13.2%
Government hospital	13.0%
EHO clinic	37.6%
Health volunteer (AMW/CHW)	10.7%
Traditional healer	1.7%
Untrained lay person[5]	1.6%
Drug shop	1.0%
Other	3.1%
Self-medication/Did not seek care	9.8%

16% of the survey respondents who had sought healthcare in the previous 12 months had required referral to higher levels of care.

1 in 10 survey respondents who had experienced illness or injury in the past year did not seek any formal or informal healthcare. The predominant reason for not seeking care related to a preference to self-medicate or not believing that the health condition required or would benefit from a consultation with a health care provider. Some respondents faced financial barriers for the cost of care or transportation to reach the facility, or had difficulty procuring a means of transportation to reach the health care facility.

Overall location was the most common reason for choosing a health provider (44% of respondents), followed by language (31%) and cost (26%; Table 9).

Table 9. Reason for choosing primary health provider in the previous 12 months

Reason	Overall	Private clinic	Private hospital	Government clinic	Government hospital	EHO clinic	Community-based provider (AMW, CHW)	Traditional healer	Untrained lay person	Self-medication	Drug shop
No alternative	35.8%	31%	31%	40%	43%	29%	41%	51%	75%	41%	45%
Location	43.9%	25%	11%	49%	23%	60%	31%	24%	28%	43%	27%
Language	30.8%	46%	23%	18%	14%	44%	20%	41%	19%	19%	23%
High quality of care	22.9%	55%	28%	29%	52%	16%	6%	3%	6%	6%	14%
Political feeling	3.0%	1%	7%	2%	6%	3%	2%	8%	0%	1%	5%
Cost	25.5%	14%	20%	14%	20%	34%	17%	35%	28%	26%	55%
Customer service	11.3%	5%	8%	19%	12%	16%	4%	0%	3%	1%	5%

[5] A traditional healer tends to prescribe herbal remedies made from locally available sources. An untrained lay person is someone who may prescribe medications or other products.

6.2 PROXIMITY TO HEALTHCARE FACILITIES

Most survey respondents reported that they would reach the nearest and/or preferred health care service provider by motorcycle (51%) or on foot (34%; Table 10). This suggests that access to healthcare has improved since EBRMS 2013, when 75% of respondents would reach their healthcare provider on foot. The median time to reach a healthcare provider by walking, bicycling, or riding a motorcycle was 30 minutes. For people who needed to reach a facility by taking a car or other forms of transportation (e.g., boat, tractor), the median time to reach a healthcare facility was 90 and 120 minutes, respectively.

Table 10. Method of reaching health care facility and time to reach facility in previous 12 months

Method	Number (%)	Median time [IQR] (min)
Walking	1162 (33.8%)	30 [10, 90]
Bicycle	30 (<1%)	30 [15, 75]
Motorcycle	1745 (50.8%)	30 [20, 60]
Car	428 (12.5%)	90 [45, 150]
Other (e.g., boat, tractor)	72 (2.1%)	120 [49, 180]

6.3 COST OF HEALTHCARE

Across Burma, out-of-pocket payment makes up 76.5% of healthcare expenditure, the highest rate in Southeast Asia and the fifth highest in the world.[9] When the amount that an individual or household needs to pay for healthcare exceeds a threshold (e.g., 40%) as a percentage of household income, such spending is called "catastrophic" because it can push households (further) into poverty. Data on the incidence of catastrophic out-of-pocket expenditure are limited in Burma.[33] High out-of-pocket expenditure financial hardship by forcing people to choose between spending on health care and other necessities like food and education. The high cost of care also delays care seeking and treatment adherence, both of which worsen health outcomes for those who need care.

Survey respondents reported the total amount that they had paid for different components of seeking care for their most recent healthcare visit within the past 12 months (Table 11). Overall, the cost of the consultation itself was the largest component of the overall cost of the visit, but the cost of transportation and medicines were also a significant investment in a setting with low monthly income.

Table 11. Median cost of care for primary survey respondent across all provider types in previous 12 months

	Median [IQR] (MMK)	Range (MMK)
Consultation/hospitalization	20,000 [5500, 70,000]	0 to 1,500,000
Transportation	2,750 [0, 20,000]	0 to 300,000
User fees	500 [0, 10,000]	0 to 600,000
Medicines	5000 [500, 20,000]	0 to 600,000

The median cost of care varied by provider (Table 12). The relatively high cost of care in government and private hospitals is due in part to the tendency to access hospitals only for more severe health conditions. EHO clinics were able to provide care with a lower median cost for patients.

Table 12. Median cost of care by provider type in previous 12 months

	Private clinic	Private hospital	Government clinic	Government hospital	EHO clinic	Health volunteer	Traditional healer	Untrained lay person	Self-medication	Drug shop
Consultation/ hospitalization	7,000	10,0000	11,000	100,000	15,000	20,000	19,000	35,000	10,000	440,000
Transportation	2,000	20,000	3,000	15,000	4,500	120	10,000	500	0	0
User fees	0	2,000	5,000	10,000	0	0	10,000	0	0	0
Medication	4,000	50,000	5,000	20,000	500	3,000	11,000	10,000	7,500	3,000

For the 16% of survey respondents who had required referral to higher levels of care in the past year, the median total cost of referral was 40,000 [IQR 0, 200,000] MMK. The maximum cost of referral reported by survey respondents was 3,000,000 MMK.

Survey respondents used multiple strategies to pay for healthcare. 3 out of 4 (74.0%) households were able to use their own household savings to pay for all or part of health care costs. In addition, 36.0% took out loans, 22.6% sold assets, and 3.0% borrowed money, while others got support from neighbors (4.6%) or the clinic itself (1.3%). Among those who took out loans, most took loans from relatives (77.6%) and money lenders (17.5%). Taking loans from employers (2.2%) and pawn shops (1.5%) was less common.

7. WATER, SANITATION, AND HYGIENE (WASH)

Key findings

• Just over half (55%) of households had access to basic drinking water sources, which are improved water sources that can be reached within 30 minutes.

• Nearly 1 in 4 households used surface water as a drinking water source, and 14% exclusively relied on surface water sources for drinking water.

• Handwashing practices should be a focus of social and behavioral change communication campaigns to prevent the spread of water-borne diseases.

7.1 WASH LADDER FOR DRINKING WATER

A household's drinking water supply can be broken down into five categories, which are presented in the form of a drinking water ladder (Figure 18).[34]

None of the households in the survey had access to safely managed water services, the highest quality of water services, which describes a water source that (1) is located on premises (within the dwelling or plot), (2) has water available when needed, and (3) has water that is free from fecal and chemical contamination.

Just over half (54.5%) of households had access to basic drinking water services. Basic services describe access to improved water sources, which due to their construction or through active intervention, are protected from contamination, especially from fecal matter. These include piped water, boreholes or tube wells, protected dug wells, protected springs, and rainwater. Households with access to basic services are able to reach an improved water source within 30 minutes.

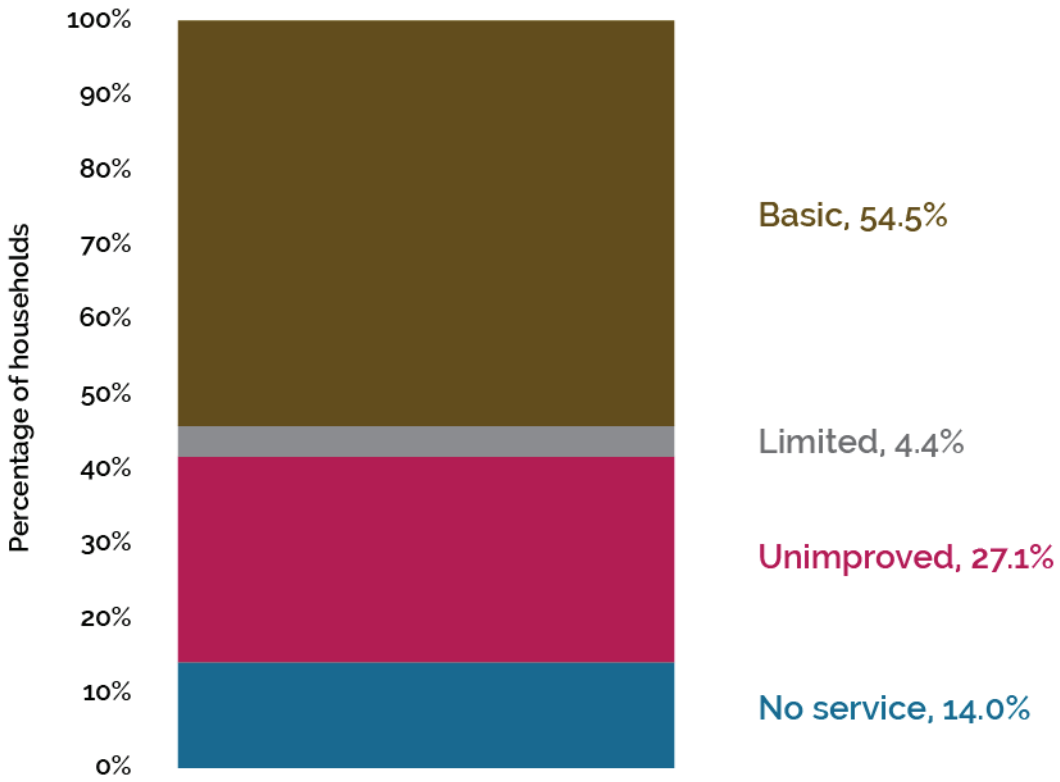
4% of households had limited drinking water services. Like basic services, limited services describe access to improved water sources, but take the user over 30 minutes to reach.

Almost a third (27%) of households had access to improved drinking water sources. Unimproved includes drinking water from unprotected dug wells, unprotected springs, carts with small tank/drum, tanker trucks.

14% of households had no service, which means that they had access only to surface water from rivers,

dams, lakes, ponds, streams, canals, or irrigation channels as a drinking water source. 14% of households had access only to surface water, but nearly 1 in 4 (23.3%) households relied on surface water as at least one of their drinking water sources.

Figure 18. Drinking water service ladder for households in Eastern Burma

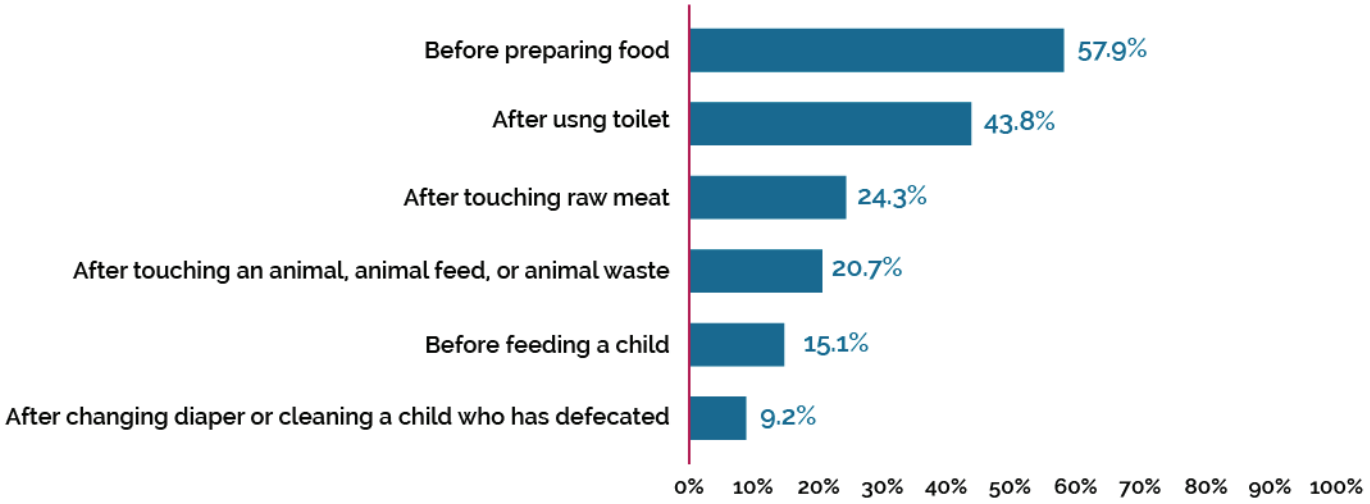


Treating water is important to reduce the risk of diarrhea and other waterborne diseases. Most households (88%) reported that they used at least one method to treat their drinking water. Boiling (74.8% of households) and straining (38.4% of households) were the two most common methods of treating water in the survey population. While most households reported treating their drinking water, over half (58%) of households reported that they had consumed drinking water that was not treated within the 24 hours prior to the survey.

7.2 HANDWASHING PRACTICES

3 out of 4 households (75.4%) reported that they had access to soap in the household for handwashing. However, actual handwashing practices were low (Figure 19). Less than 60% of survey respondents reported washing their hands before preparing food, and less than 50% reported washing their hands after using the toilet. Handwashing practices dropped to 24% after touching raw meat, 21% after touching animals or animal waste, 15% before feeding a child, and 9% after changing a diaper or cleaning a child who has defecated.

Figure 19. Handwashing practices by primary survey respondent



8. BIRTH REGISTRATION

Key findings

• The percentage of children under age 5 with any kind of birth registration increased from 46 to 68% between 2013 and 2019.

• The percentage of children under age 5 with a government birth certificate increased from 8% to 45% between 2013 and 2019.

• However, over half of children under age 5 remain without a government birth certificate and are de facto stateless.

After the survey data collection was completed, Burma passed the Child Rights Law. Until July 2019, a child's eligibility for a government-issued birth certificate depended on their parents' nationality, ethnicity, and citizenship status. Even after the passing of the Child Rights Law, birth registration still does not confer full citizenship rights, because citizenship continues to depend on the citizenship status of the parents. This excludes Rohingya Muslims and other groups who face discriminatory practice of the law like Kaman Muslims and women trafficked to China, who are not recognized as citizens in Burma.

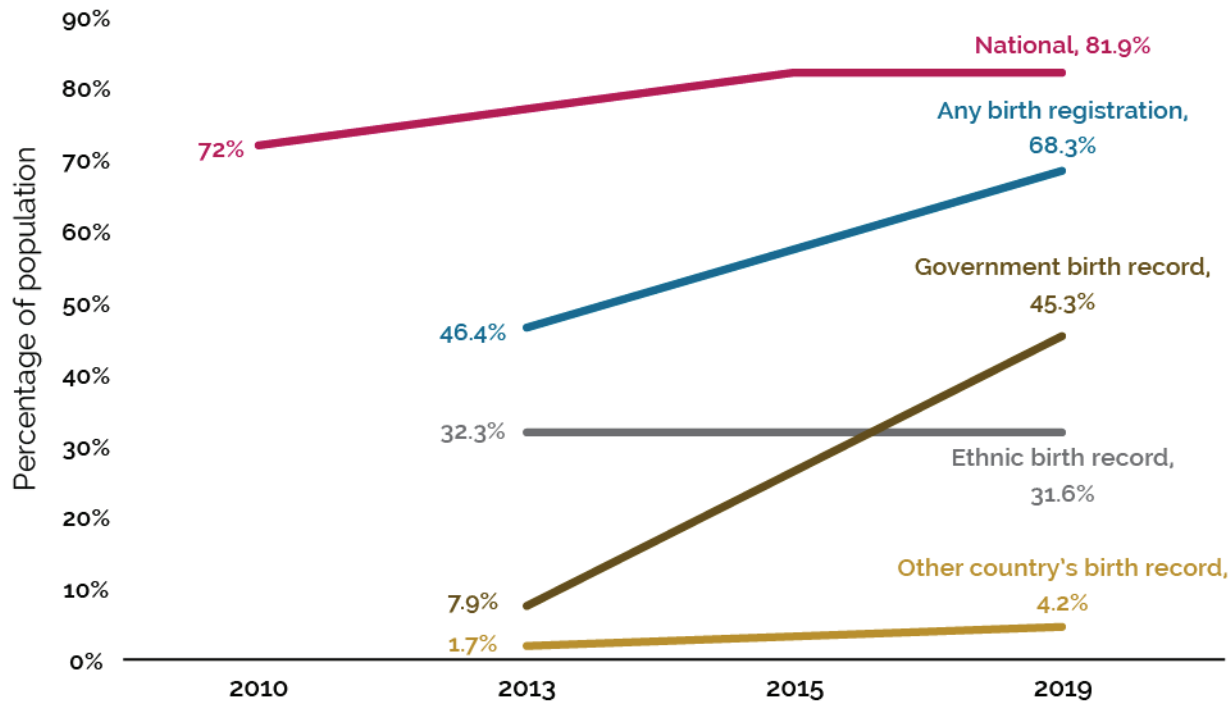
Children without birth registration in Eastern Burma are often excluded from accessing their basic rights and social services including health, education, and social support. A birth record is required to apply for a National Registration Card (NRC), which every Burmese national over the age of 15 is expected to carry at all times. An NRC is essential for applying for admission to university, some jobs, permission to travel within the country or travel abroad, and the ability to vote.

Birth registration rose significantly in Eastern Burma between EBRMS 2013 and EBRMS 2019 (Figure 20). The percentage of children under age 5 who had any kind of birth registration increased from 46% to 68%. The most dramatic increase was for the percentage of children under age 5 with a government birth record, which increased from 8% in 2013 to 45% in 2019. Several factors help explain the dramatic increase in birth registration. First, the relative security following the establishment of bilateral ceasefires in 2012 and the NCA in 2015 was associated with an overall uptake of services from government health providers by ethnic communities. Improved safety increased the visits of government midwives and EHO health care workers to the community, and of community members to government health facilities to register births. Following the election of the NLD party, communication improved between MOHS and EHO leaders, which filtered down to support stronger collaboration at the community level between government and EHO health providers for essential services like birth registration and routine child immunization in some ethnic areas. For some but not all people, the shift to the NLD government increased trust in formally registering with government systems.

Some children under age five had multiple birth records. 1 in 10 (10.5%) children had both a government birth record and an ethnic health record.

While the increase in birth registration was significant, over 50% of children under 5 remained without formal birth registration and were de facto stateless persons.

Figure 20. Percentage of children under age 5 with birth registration in Eastern Burma compared to national statistics in EBRMS 2013 and EBRMS 2019



9. HUMAN RIGHTS VIOLATIONS

Key findings

• Exposure to exploitative development projects has increased in recent years in Eastern Burma, especially road construction and timber logging.

• Exposure to acts of violence and forced labor by armed forces decreased following the establishment of ceasefires.

Before 2010, companies had highly restricted access to ethnic areas of Eastern Burma due to armed conflict. The relatively improved security since the bilateral ceasefires of 2012 and the NCA of 2015, followed by the first democratic election in Burma in decades in 2016, have led to a period of increasing investment in natural resource extraction and infrastructure development in Eastern Burma by local and international companies.

Mining, hydropower, road construction, and agribusiness are the main development projects in Southeast Burma. Road construction in particular has been a priority for both government and EAOs. Roads have improved the access of some remote communities to essential social services, including health care. However, development practices put the human rights of ethnic communities that are enshrined in the UN Declaration on the Rights of Indigenous Populations and the UN Guiding Principles on Business and Human Rights in serious jeopardy.

The increase in development projects has led to an increase in land confiscations and environmental degradation in ethnic areas of Eastern Burma. Stakeholders in development projects, including both company representatives, government authorities, and sometimes the Tatmadaw or EAOs, typically exclude communities from decision-making over their own land and natural resources. These stakeholders do not consult local communities nor do they obtain their consent before seizing land. Ethnic communities are particularly vulnerable to land grabbing because they primarily rely on customary land tenure, which are deeply rooted sets of rules and norms that govern the use, access, and transfer of land within and across communities.

The social and environmental impacts of these development projects on the livelihoods, health, and survival of ethnic communities are often grave and irreversible. However, investors, industries and government partners rarely take a socially responsible approach to resource extraction and development, including social impact assessments or community consultations to inform or obtain

consent from communities about these risks. Some sites that have been destroyed by development projects include sites of deep cultural significance to ethnic communities.[35] With the majority of households engaged in agriculture, seizure and/or degradation of land that has been cultivated through customary land tenure has represented a critical threat to sustaining the livelihoods of whole communities. Hydropower dams and road construction in ethnic areas have increased flooding that has led to forced displacement of communities. Mining and timber logging have led to land erosion, deforestation, and biodiversity loss. Mining has also increased water pollution with mercury and other toxic chemicals. Communities in ethnic areas have had limited access to justice mechanisms or fair compensation for land seizure and environmental harms.

Land disputes and development projects also increased the risk of conflict in Eastern Burma. Road construction in ethnic areas by the Tatmadaw in particular violated terms of the 2015 NCA and were designed to facilitate attacks on EAOs. In other areas, the military has forcibly displaced communities through terror campaigns of killing, torture, and sexual violence to gain access to land and resources for development projects.[35] In part exacerbated by these development projects, armed conflict has remained an ever-present threat for many ethnic communities.[36]

Table 13. Number of households reporting development projects and human rights violations

	Number (%)
Project	
Hydropower dam	38 (1.1%)
Mining	213 (6.0%)
Road/bridge/highway	724 (20.5%)
Timber	563 (15.9%)
Pipeline	100 (2.8%)
Incident	
Armed conflict	223 (6.3%)
Rape	49 (1.4%)
Killing	75 (2.1%)
Theft of rice stocks	61 (1.7%)
Forced labor	50 (1.4%)

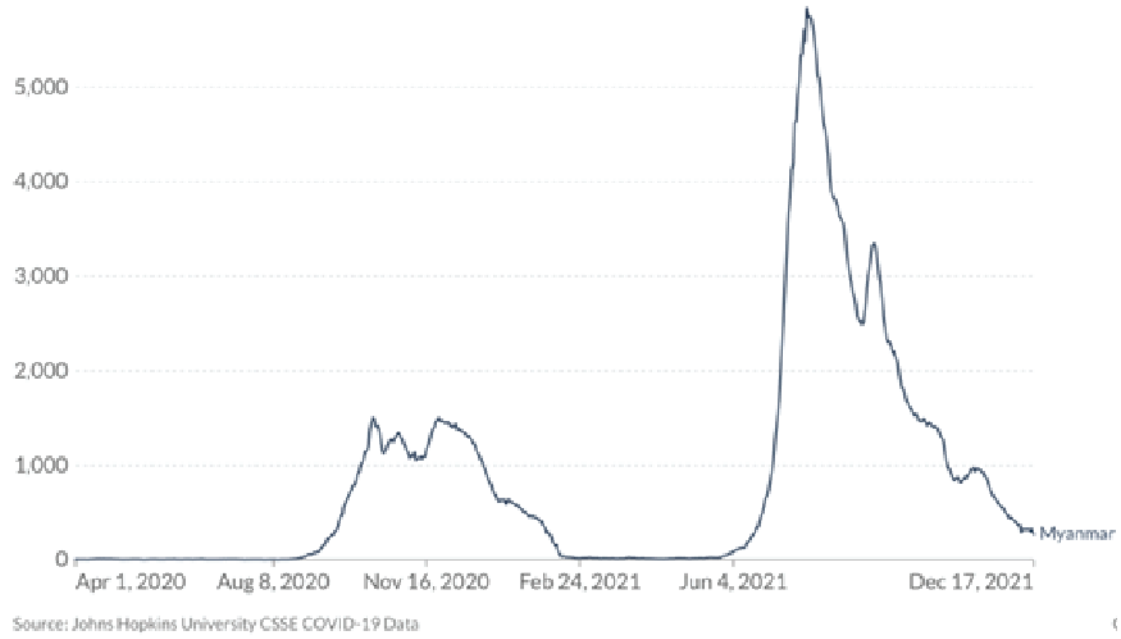
In 2019, 6% of households reported their community had experienced armed conflict, 2.1% had experienced killing, and 1.4% had experienced rape (Table 13). 1.7% of households reported that they or someone in their household had experienced theft of rice stocks and 1.4% had experienced forced labor by soldiers, authorities, or private businesses in the previous 12 months. While the overall incidence of violence, theft, and forced labor decreased compared to EBRMS 2013, these findings are evidence that households remained vulnerable to serious human rights violations.

COVID-19 PANDEMIC

Burma's COVID-19 trajectory has mirrored that of other countries in the region like Thailand, Laos, and Cambodia with a "milder" first wave and a severe third wave which can be explained in part by factors like early lockdown measures, the countries' youthful populations, and the relative strengths of different variants over time. But in Burma, conflict and the February 2021 military coup d'état have had compounding, adverse impacts on the effectiveness of the country's COVID-19 control and response.

The first confirmed COVID-19 case in Burma was announced on March 23, 2020. At the time of the coup in February 2021, a total of about 138,400 cases and 3,100 deaths had been confirmed in the country. As of December 2021, Burma has documented about 530,000 cases and 19,300 deaths. While surveillance and reporting of statistics broke down after the military coup, estimates from both pre- and post-coup periods are widely believed to be vast underestimates given Burma's limited testing capacity and reporting.

Figure 21. Number of reported daily COVID-19 cases in 2020 and 2021



When the first COVID-19 case was announced, ECBHOs quickly responded by implementing locally relevant interventions including setting up strategic COVID-19 screening points and quarantine centers in ethnic areas, providing personal protective equipment (PPE), providing risk communication and community education (RCCE) activities in local languages, and treating suspected cases. ECBHOs were able to successfully implement these interventions despite significant challenges posed by border closures and restrictive government aid policies. Border closures prevented ECBHOs from being able

to import medical supplies and vaccines, sustain cross-border training of health workers, and refer patients with life-threatening health conditions to MTC and SMRU in Thailand. Government aid policies that disallow direct funding of ECBHOs with an officially sanctioned NGO intermediary created delays in scaling up COVID-19 response by ECBHOs.

There were early indications that the COVID-19 crisis in Burma had the potential to act as a catalyst for peace-building and inclusive collaboration and coordination between different actors.[37] The MOHS called for a strategy to "leave no one behind," including vulnerable communities in conflict-affected areas. Echoing an appeal from the UN Secretary-General for a "global ceasefire," a number of EAOs called for a ceasefire and increased coordination with Union government counterparts to deal with COVID-19. However, the Tatmadaw continued attacks on ethnic communities and even ethnic COVID-19 screening posts throughout 2020 and 2021.

Beyond the impacts on health and mortality, the economic consequences of COVID-19 in the country have been severe. Over 420,000 migrant workers from Thailand and other neighboring countries were forced to return to Burma, cutting off vital remittance support from work abroad. During lockdown, hundreds of thousands of people lost their jobs. Farmers and vendors faced challenges accessing markets due to movement restrictions and selling goods due to widespread economic insecurity. By the end of 2020, 83% of households reported that they had lost, on average, half of their incomes, and 11% of households were pushed into poverty, due to COVID-19.[38]

2020 ELECTIONS

Amid the COVID-19 pandemic, Burma held general elections on November 8, 2019. Aung San Suu Kyi's NLD party once again swept the polls in a landslide victory of over 80% of contested parliamentary seats. As in the 2015 elections, some geographical areas were excluded from voting (e.g., northern Rakhine State), ethnic groups like the Rohingya were not permitted to vote, and some ethnic parties were not allowed to fully participate. The Union Election Commission (UEC), a body overseen by the President of Burma, claimed that ongoing conflict made some geographical areas too unstable to hold elections. The areas that were excluded were more likely to elect ethnic parties to seats in parliament. Some ethnic party candidates were disqualified or otherwise discriminated against by the UEC. Despite these challenges, ethnic parties were able to secure more seats compared to the 2015 elections thanks to better coordination and collaboration across ethnic parties.

In contrast, the Tatmadaw performed worse in 2019 compared to 2015. Furthermore, the Tatmadaw

understood that the NLD's second landslide victory would serve as a mandate for a second attempt to modify the 2008 constitution in a way that would permanently weaken the role of the military in the government.[39]

MILITARY COUP ON FEBRUARY 1, 2021

Using false claims of election fraud, the Tatmadaw staged a coup d'état on February 1, 2021, the day that the election results were to be certified and the newly elected parliamentarians were to be sworn in at the Pyithu Hluttaw (House of Representatives). The military detained the Elected President Win Myint, State Counsellor Aung San Suu Kyi, senior government officials, and prominent NLD supporters in pre-dawn raids. The military-appointed Vice President U Myint Swe declared a one-year state of emergency and transferred legislative, executive, and judicial powers to the Commander-in-Chief of the Tatmadaw, Senior General Min Aung Hlaing. Min Aung Hlaing established the State Administration Council (SAC) as the executive governing body during the state of emergency, and appointed himself the de facto head of government as the SAC's chairman. He has since extended the state of emergency until at least August 2023. All key positions in the SAC regime have now been filled by individuals aligned with the military.

Protests against the coup have taken place in most of Burma's 330 townships. The SAC security forces' response to these protests has become increasingly violent, with over 11,300 people arrested and 1380 people killed since February 1.[40]

The day after the military coup, government healthcare workers across Burma sparked a nationwide labor strike as a form of non-participation in the military regime called the Civil Disobedience Movement (CDM). The CDM quickly spread to civil servants from all sectors of the government. Over 417,000 civil servants are participating in CDM, including an estimated 90% of all government healthcare workers.[41,42]

The participation of government doctors and nurses in the CDM has led to the collapse of the state-supported health care system, with severe staffing shortages at state-run hospitals and clinics. With the state-supported health system in freefall, COVID-19 surveillance and control came to a full stop for four months between February and May. The number of COVID-19 cases surged in July 2021. The Tatmadaw was accused of hoarding vaccines, oxygen, and medical supplies for its own use, creating severe shortages for civilians at the height of the July outbreak.

The SAC regime has engaged in repeated violations of medical neutrality, which has severe consequences for health security in the country. Doctors and nurses who participate in CDM or protests against the coup have become targets of arrest and violence by SAC security forces. Some clinics have been raided, destroyed, or forced to close down due to security concerns, which means that it will take longer for people who need care to reach a functioning facility. Villagers have reported delaying care seeking and taking home remedies, which will increase the risk of both morbidity and mortality.[43] People who are ill or injured will increasingly rely on community-based systems like ECBHOs for care. ECBHOs will need sufficient medicines and supplies, and functioning referral mechanisms for emergencies and severe illness.

A clinic destroyed by an SAC air strike in Mutraw District following the coup

Military activity including air and ground attacks by SAC forces in Eastern Burma intensified shortly after the coup, leading to a highly critical security situation. This escalation represents the first time that airstrikes have been used in Southeast Burma in over two decades.[43] Documented human rights abuses perpetrated by the Tatmadaw include intentional killing of civilians, torture of detainees, forced labor, and planting of new landmines.[43,44] Thousands of refugees have attempted to cross the Thai border to escape the violence, but have been denied access or forced to return to Burma. As of December 17, 2021, 180,000 people are living in displacement in Southeast Burma due to the post-coup security crisis (Table 14).[45] IDPs typically bring little food or supplies with them as they flee, and have limited access to shelter, potable water, and humanitarian support. Movement has become more difficult due to increased military activity, checkpoints and road blocks.[43] Communities remain in constant fear of attack and are living under helicopter and drone surveillance.[43]

Thousands of anti-coup activists and CDM participants have flowed into EAO-controlled areas to escape arrest or persecution by SAC security forces, especially after the KNU released a statement in mid-February offering to provide protection to anyone participating in the CDM.[46] EHOs find themselves needing to sustain and scale up health service delivery to meet the increasing needs arising from increased displacement and a growing public health crisis.[47]

Economic conditions, already depressed by COVID-19, have been further exacerbated by the coup. Communities are facing widespread unemployment, rapid inflation and price increases for basic necessities like rice and fuel, and unsafe conditions for work and travel. Farmers and market vendors

Table 14. Number of people living in displacement since the coup[45]

State	Number
Shan South	29,200
Karenni	85,000
Karen	49,600
Mon	7,400
Tanintharyi	8,800
Total	180,000

are afraid of being shot, arrested, or forced to act as porters by Tatmadaw forces who occupy roads and areas near farms. The planting of new landmines in or near farmland is making it increasingly risky for farmers to access their land to plant and harvest, which impacts both household economic security and food security. Looting, confiscation, extortion, and property damage by Tatmadaw forces since the coup are also adding to livelihood vulnerability.[43]

Prior to the coup, the World Bank had projected economic growth in Burma despite the ongoing COVID-19 pandemic. Following the coup, the United Nations Development Programme (UNDP) has projected that the proportion of people living below the poverty line could double to almost half (48.2%) of the country's population by the beginning of 2022 due to the combined impacts of the COVID-19 pandemic and the military coup. Women and children are expected to be disproportionately affected by worsening poverty, with over half of all children in the country projected to be living in poverty by 2022.[38] This level of poverty has not been seen in Burma since 2005.

FORMATION OF THE NATIONAL UNITY GOVERNMENT

Following the coup, a group of ousted parliamentarians formed the Committee Representing the Pyidaungsu Hluttaw (CRPH). In March 2021, the CRPH announced the abolishment of the pro-military 2008 constitution and released a Federal Democracy Charter, Part I as a precursor for a new constitution. The Federal Democracy Charter is an improvement on the 2008 constitution because it places the principles of federalism at the forefront and suggests that ethnically based federal states would be significantly empowered under a new constitution. However, the Federal Democracy Charter has not fully addressed all key issues for ethnic minorities and EAOs, and has not yet defined the terms of federalism in enough specificity to be practicable.[39] Many ethnic leaders support the abolishment of the military-drafted 2008 constitution and the broad principles of the Federal Democracy Charter, but worry that the Charter still carries too much of the DNA of the pro-military 2008 constitution.[48] More discussions and consensus-building are needed to draft the terms of a new constitution that fully addresses the rights of ethnic minorities.

In April 2021, the CRPH endorsed the National Unity Government (NUG) as the sole legitimate governing body of Burma. The NUG is a coalition made up of ousted parliamentarians, ethnic party

representatives, and other anti-coup protest leaders. While the NUG has increased the visibility of ethnic leaders in some key government positions, the body has been met with some skepticism and criticism for its overall continuation of Bamar control and its lack of inclusion of some of Burma's most neglected minorities, including the Rohingya.[39]

The NUG has made some positive steps towards genuine collaboration with ethnic-led groups to improve healthcare and humanitarian assistance. In August 2021, the NUG's Ministry of Health and EHOs jointly held a National Health Conference, which resulted in the formation of the National Health Committee (NHC). Members of the NHC include both NUG Ministry of Health and EHO leaders. The first and primary aim of the NHC is to develop a national health policy for a decentralized federal health system in Burma that guarantees universal health coverage. The NHC also aims to improve collaboration between the NUG's Ministry of Health and EHOs in the implementation of health programs and humanitarian assistance in ethnic areas. For example, the NHC established a COVID-19 Task Force with EHOs to ensure that ethnic communities have adequate resources to effectively control and mitigate the COVID-19 pandemic.

Another key policy priority of the NHC includes formalizing training and accreditation of ethnic health care providers so that ethnic health departments can lead health care planning and implementation in their own areas. To this end, the NHC established a Federal Health Professional Council (FHPC) to oversee the health workforce while the SAC regime is in power. The objectives of the FHPC are to:

1. Ensure that all ethnic communities within the Union are able to benefit equitably from a safe, reliable, and quality health care system through consultation, dialogue, and information sharing

2. Continuously promote and advance the medical knowledge, standards, skills, and proficiency of the health workforce

3. Recognize, endorse, and upskill existing healthcare workers (including EHO and private sector providers) in all states/regions

4. Act as a regulatory body to ensure that all health care workers have the knowledge and skills to provide evidence-based care through routine monitoring and assessment to maintain safe and high-quality care

5. Issue licenses to practice health care to all levels/cadres of healthcare providers based on their respective qualifications

These initial partnerships to establish inclusive and collaborative structures will not, by themselves, resolve the deep, complex divisions around ethnicity, geography, citizenship, religion, and other diversity characteristics in Burma. More dialogue and trust-building are needed between NUG and ethnic leaders to form a federal democracy that fully addresses the rights and aspirations of ethnic minorities. Communities will need to be better engaged and empowered to participate in the peace process, including in effective mechanisms to hold NUG and ethnic leadership accountable as they negotiate the terms of peace and political self-representation. As both sides express renewed commitment to forming an inclusive federal democracy, ECBHOs are leading the way in strengthening a federalized health system to safeguard the health and wellbeing of ethnic communities and other minorities.

RECOMMENDATIONS

RECOMMENDATIONS FOR THE INTERNATIONAL DIPLOMATIC COMMUNITY

• Increase pressure on the SAC to stop militarization and human rights abuses which are driving the public health crisis in Eastern Burma.

• Support processes for ethnic minority-led groups to design and initiate a more inclusive peace process and political reforms.

• Advocate for humanitarian access to and increased assistance for IDPs, refugees, and conflict-affected communities until individuals can return to their homes voluntarily in safety. Support the establishment of humanitarian corridors by the UN along the borders with neighboring countries that capitalize on existing cross-border networks to allow the safe transit of humanitarian assistance in and/or refugees out of high-risk areas.

• Continue monitoring of emerging protection and humanitarian needs of IDPs, refugees, and conflict-affected communities.

RECOMMENDATIONS FOR INSTITUTIONAL DONORS

• Ensure that all humanitarian assistance coming into Burma is politically sensitive, takes special care not to fuel discrimination or conflict, and does not support the SAC regime.

• Increase support to ethnic areas to address long-standing health inequities as well as urgent needs that have arisen due to intensification of conflict in ethnic areas since the February 2021 coup.

• Directly support ECBHOs that provide cross-border assistance to strengthen community-based responses, reach at risk populations, and collect vital health information about these at-risk communities.

• Include ECBHOs in priority setting for humanitarian assistance to ensure the relevance of programming and target-setting.

• Support initiatives to strengthen health leadership skills of ECBHOs, including negotiation, consensus building, formulating policy, and designing sustainable financing strategies to reinforce their leadership roles in NHC initiatives.

RECOMMENDATIONS FOR NEIGHBORING COUNTRIES

• Allow border-based ECBHOs to access much-needed COVID-19 vaccines and other medical supplies as a humanitarian gesture and to strengthen cross-border control of infectious diseases.

• Support people fleeing local warfare to obtain cross-border assistance in the case of emergencies.

• Suspend Burma's membership in ASEAN until the SAC is removed from power.

TO THE INTERNATIONAL COMMUNITY PROVIDING DIRECT FOREIGN INVESTMENT IN BURMA

• Consumers should boycott domestic and international companies that are enriching the SAC.

• Businesses should withdraw all existing investments in Burma, and avoid making any new investments in the country that could directly or indirectly benefit the SAC regime until a democratically elected government returns to power, and a full peace agreement and decentralized federal union are achieved.

• For international businesses that cannot exit Burma yet, improve consultations with ethnic communities to ensure that development business practices do not confiscate land, degrade or contaminate the environment, or exacerbate the risk of conflict for ethnic communities in Eastern Burma.

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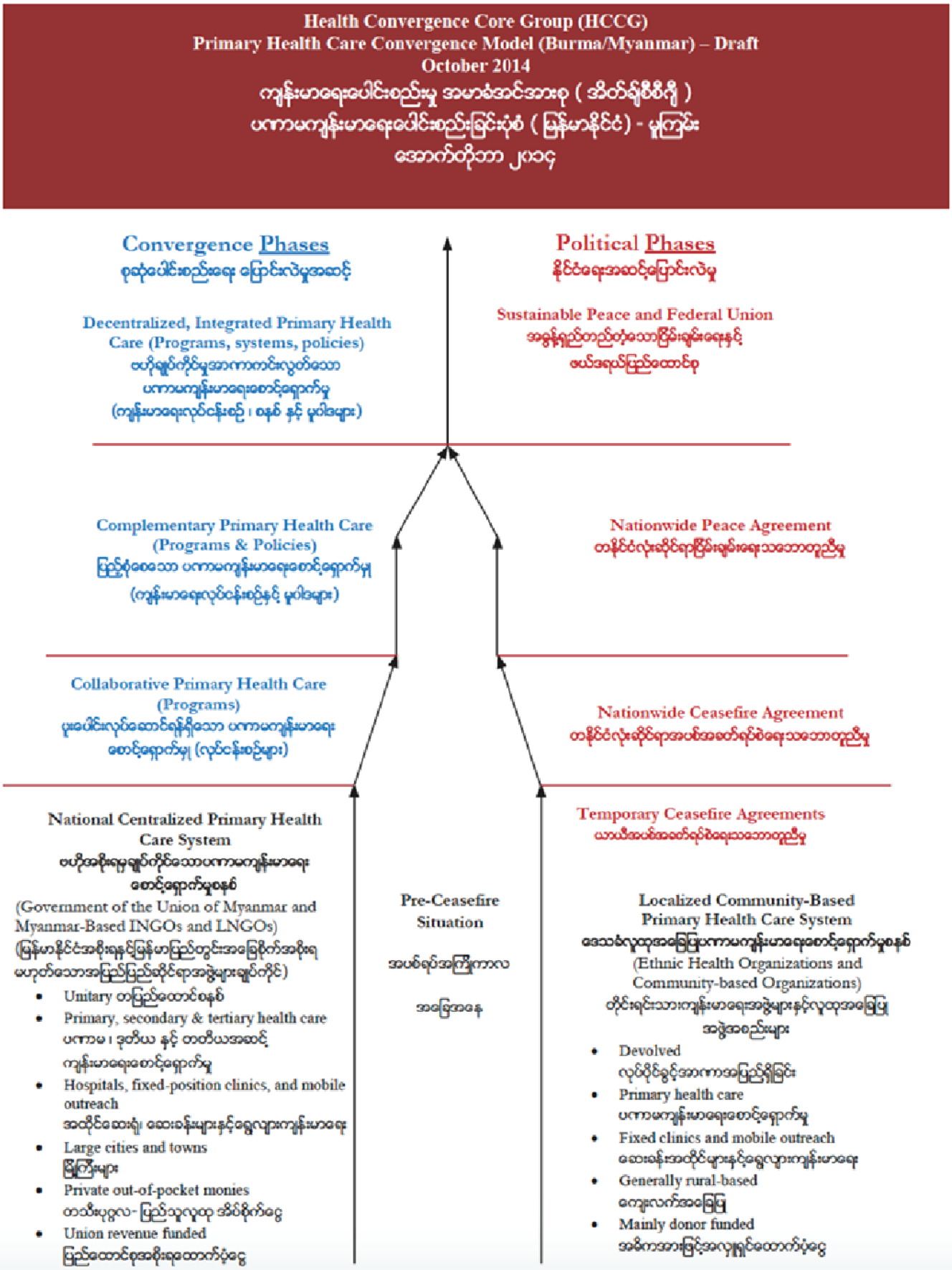
APPENDIX 1. PRIMARY HEALTH CARE CONVERGENCE MODEL FOR BURMA



THE LONG JOURNEY

Health, Politics, and Human Rights
in Eastern Burma

Karen Department of Health and Welfare

KnMHC

S.S.D.F

Shan State Development Foundation

MAE TAO CLINIC

CPAC

BMA

Civil Health and Development Network

CHDN

(Karenni State)

B.P.H.W.T

Primary Health care

PA-OH

PHWC