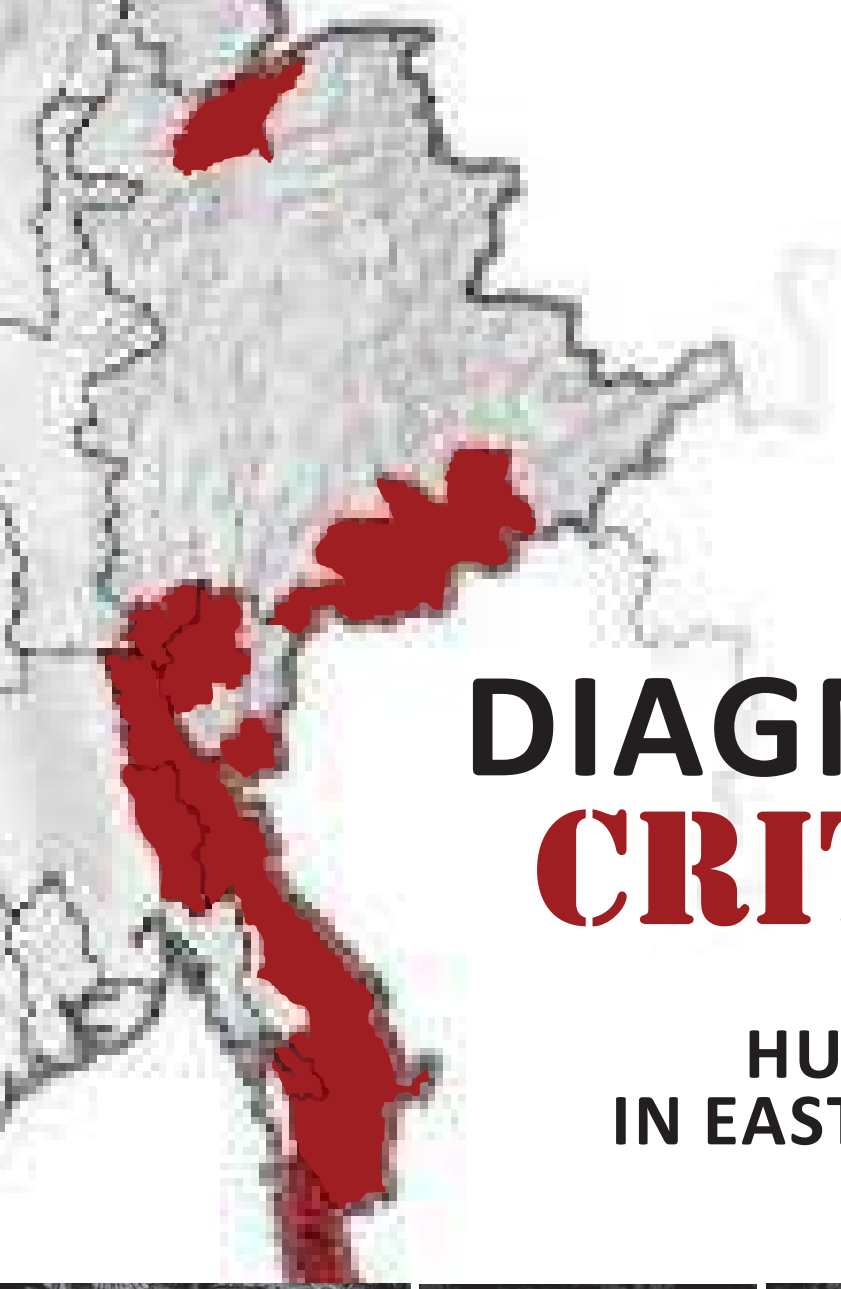

DIAGNOSIS: CRITICAL

HEALTH AND HUMAN RIGHTS IN EASTERN BURMA






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PURPOSE OF THE CURRENT REPORT

The purpose of this report is to summarize the data of a population-based survey which was undertaken to assess the health and human rights situation across parts of four states and two divisions that comprise the eastern states of Burma as a whole. A former survey was performed in 2004, the results of which were published in the report *Chronic Emergency*, which focused mainly on conflict zones within Karen, Karenni, and Mon States. This report builds upon the methodology of and issues dealt with in *Chronic Emergency*, and covers a much larger geographic area, including southern Shan State and Tenasserim Division. In addition, this survey covers a wider range of political and conflict contexts throughout eastern Burma, ranging from areas of ongoing low-level conflict, to areas of fluctuating control and others controlled by armed ethnic groups which have a ceasefire agreement with Burma's military regime.

IMPLEMENTING ORGANIZATIONS

The Burma Medical Association, National Health and Education Committee, Back Pack Health Worker Team and ethnic health organizations serving the Karen, Karenni, Mon, Shan, and Palaung communities collaborated to plan, design, and implement this survey. Technical support was provided by the Global Health Access Program and the Center for Public Health and Human Rights, Johns Hopkins Bloomberg School of Public Health.

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FOREWORD BY DR. SRIPRAPHA PETCHARAMESREE

Lecturer, Centre for Human Rights Studies and Social Development, Mahidol University, Thailand.

The UN General Comment No.14 on the right to the highest attainable standard of health states that "Health is a fundamental human right indispensable for the exercise of other human rights. Every human being is entitled to the enjoyment of the highest attainable standard of health conducive to living a life in dignity." The same document further notes that "the right to health is closely related to and dependent upon the realization of other human rights, as contained in the International Bill of Rights, including the rights to food, housing, work, education, human dignity, life, non discrimination, equality, the prohibition against torture, privacy, access to information, assembly and movement." In short, human rights are inter-related and inter-dependent, and the right to health cannot be materialized without the enjoyment of political and civil rights.

The fact that the right to health is not only about receiving health care has been widely recognized elsewhere. According to the Constitution of the WHO, health is "a state of complete physical, mental and social well being and not merely the absence of disease or infirmity." Further, the right to health is enshrined in multiple international human rights treaties such as the International Covenant on Economic, Social and Cultural Rights (ICESCR, article 12), the International Convention on the Elimination of All Forms of Racial Discrimination (CERD, article 5), the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW, articles 11 and 12), and the Convention on the Rights of the Child (CRC, article 24). These treaties impose on state parties obligations to respect, protect and fulfill rights prescribed by the provisions.

However, as seen in *Diagnosis: Critical*, a report based on data systematically collected in conflict-affected zones in eastern Myanmar by a network of community organizations, the State of Myanmar and the government is failing to fulfill these obligations, particularly the two international conventions that Myanmar is party to, CEDAW and CRC. For many communities in eastern Myanmar, basic health indicators for women and children, such as maternal mortality and child mortality, far exceed official statistics for the rest of the country, already amongst the worst in the region. Many of the losses could have been prevented if international humanitarian access to these populations was facilitated. Meanwhile, as also has been documented here, abuses such as forced labor and destruction of food continue on a wide scale, driving poverty, migration, food insecurity and, ultimately, sickness and premature death. The inability of the peoples of eastern Myanmar to enjoy basic rights is killing them.

However, these realities are not confined to Myanmar alone as the burden of these abusive policies is borne by members of ASEAN and beyond. Thailand already hosts approximately 140,000 refugees from Myanmar, and millions more reside in Thailand outside the official camps, often working as undocumented migrant labor. Without care at home, unable to access care in Thailand, it is no coincidence why infectious diseases such as malaria, tuberculosis, typhoid, and cholera are frequent, if not perennial, threats to life along the long, porous border with Myanmar. In recognition of the severity of this, the Thai government approved a 200 million baht emergency budget earlier this year to support Thai public hospitals struggling to address these issues, which threaten their ability to continue providing the highest attainable standard of health in Thailand.

These realities in Myanmar are ongoing today, and will not change in the absence of the communities of the country being able to fully realize their basic rights. Measures are needed now to address this chronic crisis. It is the duty of both the State concerned as well as international community to ensure that access to such basic rights are respected, protected and fulfilled to ensure that the peoples of Myanmar are able to enjoy the highest attainable standard of physical and mental health. However, in addition, we must continue to support the efforts of communities struggling to aid their own members in this endeavor; they are not only the source of vital social services for many in the community but also help protect the health security of the region.

FOREWORD BY DR. CYNTHIA MAUNG

Director of Mae Tao Clinic and Chairperson of Backpack Health Workers Team

All of the community organisations working to provide health in eastern Burma have made the strengthening of health information systems a high priority. The extent of their capabilities first became evident internationally with the publication of Chronic Emergency in 2006, which was the result of a coordinated population-based survey conducted with the Back Pack Health Worker team and 3 ethnic health organisations during 2004. This was the first report ever to highlight the role of the ongoing conflict and its impact on the health of the affected populations in eastern Burma. It opened the eyes of the international community, and as health workers we feel proud and empowered that it made so many more people pay attention to the plight of those living in conflict zones.

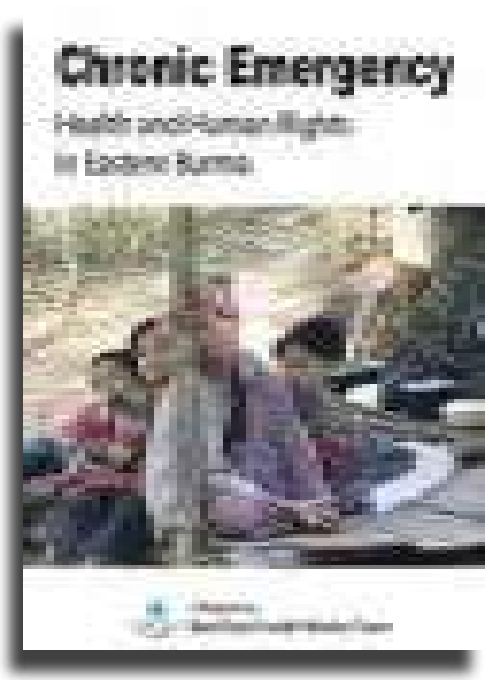
Health workers and communities in eastern Burma are committed to trying to reach the Millennium Development Goals. Dedicated community workers strive to improve maternal health, reduce the risk of under 5 deaths, and work for poverty reduction and gender equity. But they are very far from being able to achieve these in Burma, and especially in eastern Burma, where malaria, TB and HIV pose such major threats to people's lives. Conflict and displacement pose huge challenges to providing services in eastern Burma. However, through strengthening collaborations among ethnic health organisations and with support from international agencies, it is possible to develop appropriate systems for such complex circumstances.

This new report is a result of a wider collaboration of the Burma Medical Association, Back Pack Health Workers Team, National Health and Education Committee, as well as several ethnic health organisations. Thus a far greater number of villagers and villages was surveyed and a broader range of political and socio-economic areas covered. A broader picture of eastern Burma's health and human rights situation has now been obtained.

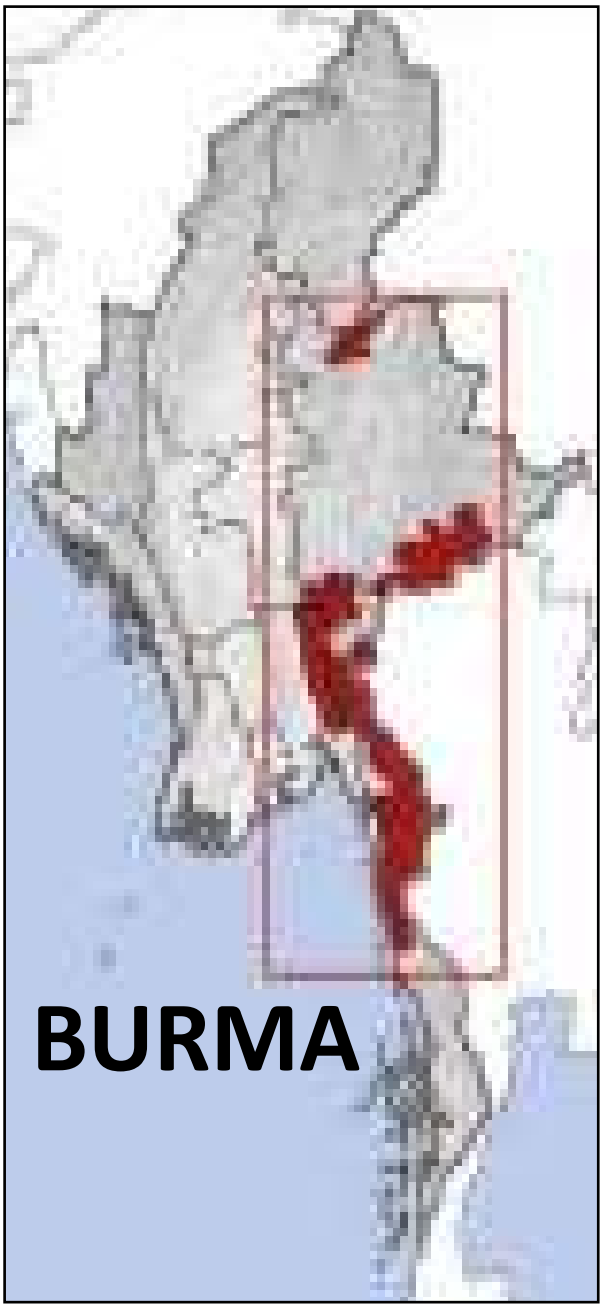
The information for the report was gathered by community health workers, those who see on a daily basis the link between conflict and the health crisis. As well as bearing witness to the suffering of the people of eastern Burma, the health workers and their families are directly affected by the abuses, as members of the communities where they work. By serving the people as health workers, they also feel a sense of empowerment: they realise that they themselves, the community, are the only people in a position to provide assistance, to rebuild communities and to improve their lives. Through the maternal and child health projects they work with, they can make a difference to maternal mortality rates and reduce infant death rates. Through malaria control projects, they can save the lives of their neighbours. The health workers know clearly how important their work is in saving lives and in strengthening community.

The results of this report show the impact of conflict and of militarization. The military controls all of the nation's resources in both conflict and non-conflict areas. Access to even basic health care is limited throughout the country, and this situation is particularly acute in eastern Burma.

I sincerely hope that this report will motivate neighbouring countries, UN agencies and other foreign governments to take action to address the causes of the humanitarian crisis as well as to support the work of the thousands of health workers, teachers and community workers in eastern Burma working in response to the crisis.



EXECUTIVE SUMMARY



Diagnosis: Critical demonstrates that a vast area of eastern Burma remains in a chronic health emergency, a continuing legacy of longstanding official disinvestment in health, coupled with protracted civil war and the abuse of civilians. This has left ethnic rural populations in the east with 41.2% of children under five acutely malnourished. 60.0% of deaths in children under the age of 5 are from preventable and treatable diseases, including acute respiratory infection, malaria, and diarrhea. These losses of life would be even greater if it were not for local community-based health organizations, which provide the only available preventive and curative care in these conflict-affected areas.

The report summarizes the results of a large scale population-based health and human rights survey which covered 21 townships and 5,754 households in conflict-affected zones of eastern Burma. The survey was jointly conducted by the Burma Medical Association, National Health and Education Committee, Back Pack Health Worker Team and ethnic health organizations serving the Karen, Karenni, Mon, Shan, and Palaung communities. These areas have been burdened by decades of civil conflict and attendant human rights abuses against the indigenous populations.

Eastern Burma demographics are characterized by high birth rates, high death rates and the significant absence of men under the age of 45, patterns more comparable to recent war zones such as Sierra Leone than to Burma's national demographics. Health indicators for these communities, particularly for women and children, are worse than Burma's official national figures, which are already amongst the worst in the world. Child mortality rates are nearly twice as high in eastern Burma and the maternal mortality ratio is triple the official national figure.

While violence is endemic in these conflict zones, direct losses of life from violence account for only 2.3% of deaths. The indirect health impacts of the conflict are much graver, with preventable losses of life accounting for 59.1% of all deaths and malaria alone accounting for 24.7%. At the time of the survey, one in 14 women was infected with Pf malaria, amongst the highest rates of infection in the world. This reality casts serious doubts over official claims of progress towards reaching the country's Millennium Development Goals related

Human Rights Violation	Health Outcome	Increased Odds
Forced labor	Infant death	2.5
	Child death	1.9
Displacement	Moderate-severe acute child malnutrition	3.3
Destruction and seizure of food	Moderate-severe acute child malnutrition	1.8

to the health of women, children, and infectious diseases, particularly malaria.

The survey findings also reveal widespread human rights abuses against ethnic civilians. Among surveyed households, 30.6% had experienced human rights violations in the prior year, including forced labor, forced displacement, and the destruction and seizure of food. The frequency and pattern with which these abuses occur against indigenous peoples provide further evidence of the need for a Commission of Inquiry into Crimes against Humanity. The upcoming election will do little to alleviate the situation, as the military forces responsible for these abuses will continue to operate outside civilian control according to the new constitution.

The findings also indicate that these abuses are linked to adverse population-level health outcomes, particularly for the most vulnerable members of the community—mothers and children. Survey results reveal that members of households who suffer from human rights violations have worse health outcomes, as summarized in the table above. Children in households that were internally displaced in the prior year were 3.3 times more likely to suffer from moderate or severe acute malnutrition. The odds of dying before age one was increased 2.5 times among infants from households in which at least one person was forced to provide labor.

The ongoing widespread human rights abuses committed against ethnic civilians and the blockade of international humanitarian access to rural conflict-affected areas of eastern Burma by the ruling State Peace and Development Council (SPDC), mean that premature death and disability, particularly as a result of treatable and preventable diseases like malaria, diarrhea, and respiratory infections, will continue.

This will not only further devastate the health of communities of eastern Burma but also poses a direct health security threat to Burma's neighbors, especially Thailand, where the highest rates of malaria occur on the Burma border. Multi-drug resistant malaria, extensively drug-resistant tuberculosis and other infectious diseases are growing concerns. The spread of malaria resistant to artemisinin, the most important anti-malarial drug, would be a regional and global disaster.

In the absence of state-supported health infrastructure, local community-based organizations are working to improve access to health services in their own communities. These programs currently have a target population of over 376,000 people in eastern Burma and in 2009 treated nearly 40,000 cases of malaria and have vastly increased access to key maternal and child health interventions. However, they continue to be constrained by a lack of resources and ongoing human rights abuses by the Burmese military regime against civilians. In order to fully address the urgent health needs of eastern Burma, the underlying abuses fueling the health crisis need to end.

BACKGROUND

Burma is one of the world's most ethnically diverse countries, home to dozens of ethnic groups. Straight after independence in 1948, ethnic armed rebellions began to break out in the country's eastern frontier areas as groups began to press for increased autonomy. In 1962, General Ne Win overthrew a parliamentary democracy, an event that would usher in almost five decades of military rule. Under successive military regimes, dissenting ethnic leaders and other political opposition members have been persecuted and widespread human rights abuses perpetrated against civilians.

The repressive policies pursued by the various military juntas fuelled further resistance movements. Some of the ethnic armed groups signed ceasefire agreements with the ruling military regime after 1989, but armed conflict continues in many areas of eastern Burma. Some areas are subject to the sole authority of the regime's troops or Burma Army forces allied with local militias. Other regions fall under the control of ethnic ceasefire groups, even though some of the administration within these zones is at times undertaken by regime officials.

In eastern Burma, several armed groups continue resistance against the regime, including the Shan State Army-South, the Karen National Liberation Army, and the Karenni Army. In areas that are contested by these organizations, the regime continues to employ the "Four Cuts" strategy. This military initiative is designed to break down the four crucial links between armed opposition groups and the people: food, financial support, recruits, and information. Such a military strategy that targets civilians is in violation of international humanitarian law. Sustained implementation of this policy has resulted in the forced relocation, destruction, or forced abandonment of over 3,600 villages and hiding sites from 1996 to 2010. Currently, there are at least 446,000 internally displaced people in the rural areas of eastern Burma alone.[1]

The Burma Army (or Tatmadaw) commits widespread human rights violations against ethnic civilians, which have been widely documented. These abuses include forced labor, confiscation and destruction of food supplies, arbitrary taxation, torture, rape and extrajudicial execution. The scale of these abuses and their ongoing nature have prompted The United Nations Special Rapporteur on human rights in Burma, Tomás Ojea Quintana, to call for a United Nations Commission of Inquiry into crimes against humanity, and war crimes in Burma. This initiative has subsequently received the backing of various governments.[2]

Under these abusive conditions, civilians attempt to maintain their livelihoods and avoid situations of conflict. Those residing in hiding sites are highly mobile and move between these areas and their old villages once military patrols have moved on, in attempts to maintain subsistence agricultural livelihoods. High amounts of food and livelihood insecurity plague these populations, and the conditions of conflict and militarization restrict their access to adequate healthcare. This has led hundreds of thousands to flee to Thailand. The refugee camps along Thailand's western border hold over 145,000 people.[3] Thailand also hosts a large migrant population which may number as many as 3 million people, the majority of which are undocumented workers from Burma and are mostly lacking the protection of Thai labor laws.[4]

1 Thailand-Burma Border Consortium, forthcoming. 2010.
2 Washington Post. U.S. supports creation of U.N. commission of inquiry into war crimes in Burma. August 18, 2010. Human Rights Watch. Commission of Inquiry for Burma is long overdue. March 28, 2010.
3 Thailand-Burma Border Consortium. Burmese border refugee sites with population figures. July 7, 2010.
4 Karen Human Rights Group. Abuse between borders: vulnerability for Burmese workers deported from Thailand. 2010.

Currently, there are at least 446,000 internally displaced people in the rural areas of eastern Burma alone.

ABOVE: IDPs fleeing Burma Army offensive
BELOW: IDPs in Karen State build makeshift shelters in jungle

HEALTH

Karen villager suffering from filariasis

Public health is another casualty of decades of military rule with chronic disinvestment in basic, essential social services. Burma's current rulers have not deviated from the negligent socio-economic policies of the past. Despite an estimated $2.5 billion trade surplus in 2009,[5] predominantly from the sale of natural gas to Thailand, the regime spends around $7 per capita per annum on health, amongst the lowest in the world according to the United Nations Development Program's development index.[6] Burma only spends 1.8% of total government expenditures on health, leaving Burma in 138th position in the United Nation's Development Program's Human Development Report for 2009.[7] Burma is thus lagging far behind the UN's Millennium Development Goals (MDGs).

Almost all health-related services must be paid for out-of-pocket, including basic primary and preventive healthcare. Given that the country's per capita income is $1,100 according to 2009 estimates,[8] and that the average Burmese household is estimated to spend over 70% of the household budget on food alone, (constituting one of the world's worst food insecurity situations), official health services are an unaffordable luxury for most Burmese. In consequence, Burma has been left with some of the regions poorest health indicators. Burma's official statistics for maternal mortality are 240 deaths per 100,000 live births, offering a dismal comparison with neighboring Thailand, where the figure is 48 per 100,000.[9]

Today, Burma's health indicators for child, infant, and maternal mortality rank amongst the worst in Asia. Burma's infant mortality rate was estimated by UNICEF at 54 per 1,000 live births, in 2009, with an under-five mortality rate of 71 in the same year.[10] These figures also suffer highly unfavorable comparisons with the infant and child mortality rates of Thailand for 2009 which were recorded as 12 and 14 respectively.[11] The main causes of morbidity and mortality in the country are overwhelmingly preventable, from disease entities such as malaria, malnutrition, diarrhea, acute respiratory illnesses, tuberculosis, and HIV/AIDS. Burma continues to register the greatest number of malaria deaths and the highest malaria case fatality rate of any country in Southeast Asia.

The health indicators for the rural ethnic populations of the east are even worse than Burma's national rates. The eastern states have been burdened by protracted low-level conflict, high levels of displacement and little to no access to state health care systems, leaving some populations of conflict zones with levels of maternal mortality of 1,000 – 1,200 deaths per 100,000 live births.[12]

Despite the health crisis, the regime continually restricts activities of international humanitarian organizations.[13] In January 2008 the regime announced guidelines that further limited international non-governmental organization (INGO) operations. Applications for field trips would require two weeks notice with the Ministry of Defense, and a complete itinerary and list of planned locations and activities. Other restrictions included: no travel permits for short-term consultants or international trainers and INGO employees have to state exactly their planned length of stay in Burma on visa applications.

In the immediate aftermath of Cyclone Nargis, relief efforts mounted by a variety of Rangoon-based community groups were met with travel restrictions and appropriation of aid materials and resulted at times in the arrest of members. Despite increases in international access to Nargis-affected areas after the cyclone, in August 2010 the regime announced that no Nargis-related visas would be extended, and no new visas would be granted under the old arrangement.[14]

5 Wall Street Journal. Sean Turnell. Burma Isn't Broke. August 6, 2009.
6 UNDP Human Development Report 2009.
7 Ibid.
8 CIA World Factbook. Burma: Economy overview. 2009 estimates.
9 World Health Organization. Trends in Maternal Mortality: 1990 to 2008. 2010.
10 United Nations Children's Fund. Levels & Trends in Child Mortality. 2010.
11 Ibid.
12 Luke C. Mullany, Catherine I. Lee, Lin Yone et al. Access To Essential Maternal Health Interventions and Human Rights Violations among Vulnerable Communities in Eastern Burma. PLoS Medecine. December 2008.
13 Médecins Sans Frontières. Press Release: Prevented from Working, the French Section of MSF leaves Myanmar (Burma). March 30, 2006.
International Committee of the Red Cross (ICRC), Yangon/ Geneva. News Release: Myanmar: ICRC denounces major and repeated violations of international humanitarian law. June 29, 2007.
14 United Nations Office for the Coordination of Humanitarian Affairs - Integrated Regional Information Networks (IRIN). MYANMAR: Nargis now a development issue, says Yangon. August 20, 2010.

Burma only spends
1.8% of total government expenditures
on health, leaving Burma in 138th position in the UNDP's Human Development Report for 2009

COMMUNITY RESPONSE

Without access to a public social service system or official international humanitarian assistance, many people in eastern Burma are forced to rely on health, education and community development programs set up and run by members of the communities themselves.

Community health organizations operating in the eastern states provide a range of curative and preventative services to impoverished communities through various public health programs. These programs focus on the control and prevention of infectious disease, improving reproductive health, improving water and sanitation, and improving nutrition through micronutrient supplementation, education, and de-worming. Community health organizations had a target population of over 376,000 people in 2009 (see Appendix 2).

These health groups work closely with international NGOs, and follow standardized medical treatment protocols in line with the *Burma Border Guidelines*, which were developed through collaboration with INGOs and international technical support.[15]

The community groups in eastern Burma have well-documented malaria control programs which follow the lead of the WHO Roll Back Malaria Initiative. Programs provide early diagnosis and treatment of malaria using Paracheck rapid diagnostic tests and artemisinin-based combination therapy. Programs also distribute insecticide treated mosquito nets, provide education on malaria, and conduct ongoing monitoring of malaria burden.[16] In 2009, these malaria control programs treated 38,299 people for malaria.

Community health groups also provide reproductive health services, through a network of clinics, mobile medical teams, and village-based providers. Local Traditional Birth Attendants (TBAs) are trained to provide basic care, and when possible collaborate with higher skilled mobile maternal health workers, who can handle more difficult cases and refer them to clinics when needed. Local groups have trained 164 maternal health workers and 1,113 TBAs to provide services reaching a target population of 310,078 in eastern Burma. In 2009, these health workers and TBAs assisted in 5,513 deliveries and provided family planning counseling and supplies to 6,573 women.

A key component of health programming remains the need for reliable population-based data, which continues to be lacking in Burma. Therefore many of these community groups have collaborated in undertaking population-based retrospective mortality and morbidity surveys.[17] These surveys have helped to document and quantify the effects of conflict and widespread human rights abuses on health.[18] These efforts facilitate the efficient use of limited resources, help to monitor the progress of program implementation[19] and provide a more accurate statistical picture of the populations than are available through official sources. The surveys also contribute to a greater understanding of the regional implications of Burma's health crisis.

Key to the work of these local health organizations is that they are both flexible and rooted in the communities they serve, adapting to the challenging and unpredictable conditions of eastern Burma. Thus, in the face of threats which force communities to move, programs may be interrupted but can often soon resume.

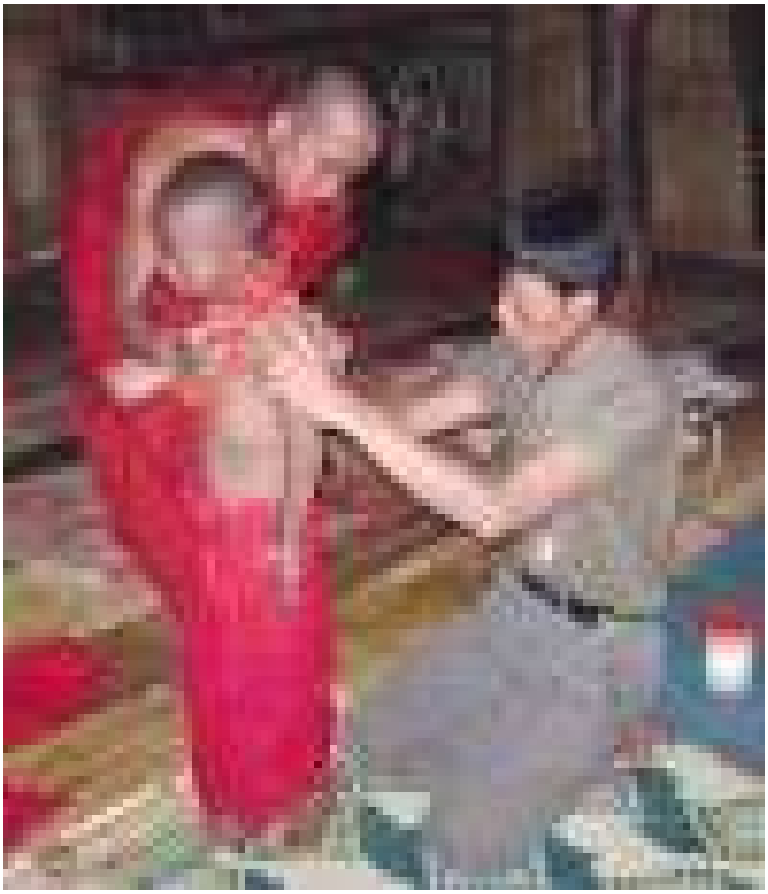
15 Burmese Border Guidelines. 2007. Available at http://burmalibrary.org/docs4/BBG_2007-Eng.pdf

16 Adam K. Richards, Kristin Banek, Luke C Mullany et al .Cross-border malaria control for internally displaced persons: observational results from a pilot programme in eastern Burma/Myanmar. Tropical Medicine and International Health. Vol 14, No 5, pp 512–521. May 2009.

17 Lee TJ, Mullany LC, Richards AK, Kuiper HK, Maung C, Beyrer C. Mortality rates in conflict zones in Karen, Karenni, and Mon States of eastern Burma. Tropical Medicine and International Health. Vol 11, No 7, pp 1119–1127. July 2006.

18 Mullany LC, Richards AK, Lee TJ, et. al. Application of population-based survey methodology to quantify associations between human rights violations and health outcomes in eastern Burma. Journal of Epidemiology and Community Health, 2007;61:908-914.

19 Luke C. Mullany, Catherine I. Lee, Lin Yone et al. Access To Essential Maternal Health Interventions and Human Rights Violations among Vulnerable Communities in Eastern Burma. PLoS. 2008.



Community health organizations targeted a population of over 376,000 people in 2009.

ABOVE: Backpack team at work in southern Shan State
BELOW: Community health worker in Karen State

METHODOLOGY

Sampling

Standard population-based cluster survey methods were modified to accommodate the unstable setting in the areas where the survey was implemented. The sampling frame consisted of 325,094 people and 57,950 households within the service provision areas of ten local organizations and within four states and two divisions in Burma. A sample size calculation was conducted which determined a sample of 8,190 household surveys in 273 villages. These 273 villages were randomly selected, and surveyors randomly selected 30 households within each village.

Survey Instrument Design and Health Outcomes Measurement

Respondents were asked to give oral consent to participate in the survey. Surveyors were instructed to interview the woman in the household with the youngest child. If she was not available, the woman with the next oldest child was interviewed. If no woman was available, the male head of household was interviewed. The respondent was asked to list the age and sex of all household members alive at that time as well as the age and sex of all household members who had died in the year prior to the survey (excluding miscarriages, abortions, and still births). Complete reproductive histories were collected from female respondents. The majority of questions were asked with a one-year recall period with the exception of diarrhea (two weeks prior to the survey), oral rehydration salt consumption (two weeks prior to the survey), vitamin A supplementation (six months prior to the survey), and landmine injuries (15 years prior to the survey). Acute malnutrition was assessed by measuring mid-upper arm circumference (MUAC). Plasmodium falciparum (Pf) malaria infection was tested using Paracheck rapid diagnostic tests (Paracheck-Pf® Orchid Biomedical Systems, Goa, India). Surveyors were instructed to conduct Paracheck tests on the adult interviewee (preferentially women) in every fifth household. Salt was tested for iodine using a standard test.

Surveyor Training

45 surveyors were trained in late 2008 in surveying techniques specific to this survey, including interviewing and sampling techniques, disease case definitions, informed consent protocols, mid-upper arm circumference (MUAC) measurements, and Paracheck rapid diagnostic tests administration.

Data Collection and Analysis

Data was collected from October 2008 through January 2009 and was returned for data entry and analysis after being checked for accuracy and consistency. MUAC scores were categorized according to the World Health Organization Child Growth Standards as well as by standard cutoffs used by the United Nations High Commissioner for Refugees (UNHCR). Mortality rates were pooled across areas, weighted by the inverse of the population of each stratum, and adjusted for clustering due to the sampling design. Proportions and odds ratios were also weighted by the inverse of the population of each stratum and adjusted for clustering due to the sampling design.

Limitations

All questions are subject to recall bias. It is possible that respondents had trouble accurately remembering the number or type of disease and/or human rights abuses suffered in the recall period for which they were asked to respond (especially in the case of questions relating to landmine injuries which covered a period of 15 years). Generally, this results in lower reporting of events.

Additionally, it is possible that nuances were lost in the translation of survey questionnaires between English, Burmese, S'gaw Karen, Lahu, Shan, and Mon languages. In particular, the question about respondents being "forced" to move habitation due to poor security could have been interpreted in multiple ways. The original intention of the question was to quantify the number of households moving due to security threats from authority figures or being forcibly relocated by authority figures. However, it is possible that respondents only understood the question to be related to choosing to move out of fear or in response to poor security and did not respond if they were forcibly relocated by soldiers or authorities.

It should be noted that the survey process was conducted throughout all areas during the dry season. Consequently, certain morbidity rates, such as those for malaria and diarrhea, would be expected to be higher if the survey had been conducted during the rainy season. As a result, care should be taken in comparing such rates to those from other surveys conducted during other seasons. The results therefore represent a best-case scenario in terms of health indicators for the surveyed populations.

The survey was carried out with the intention of gathering data related to both human rights and health indicators. Therefore, due to the breadth of the questionnaire, questions regarding human rights abuses had to be kept relatively simple and the questionnaire did not include inquiries regarding the identities or affiliations of the perpetrators of abuses, nor explicit details about the victims of abuse. Additionally, respondents were only questioned regarding a discrete set of common abuses. It is acknowledged that these abuses do not constitute all those that take place within the surveyed areas.

Odds ratios demonstrate an association between mortality/ill health and human rights violations. They cannot be interpreted as causal relationships. Odds ratios were not adjusted to account for potential confounding factors.

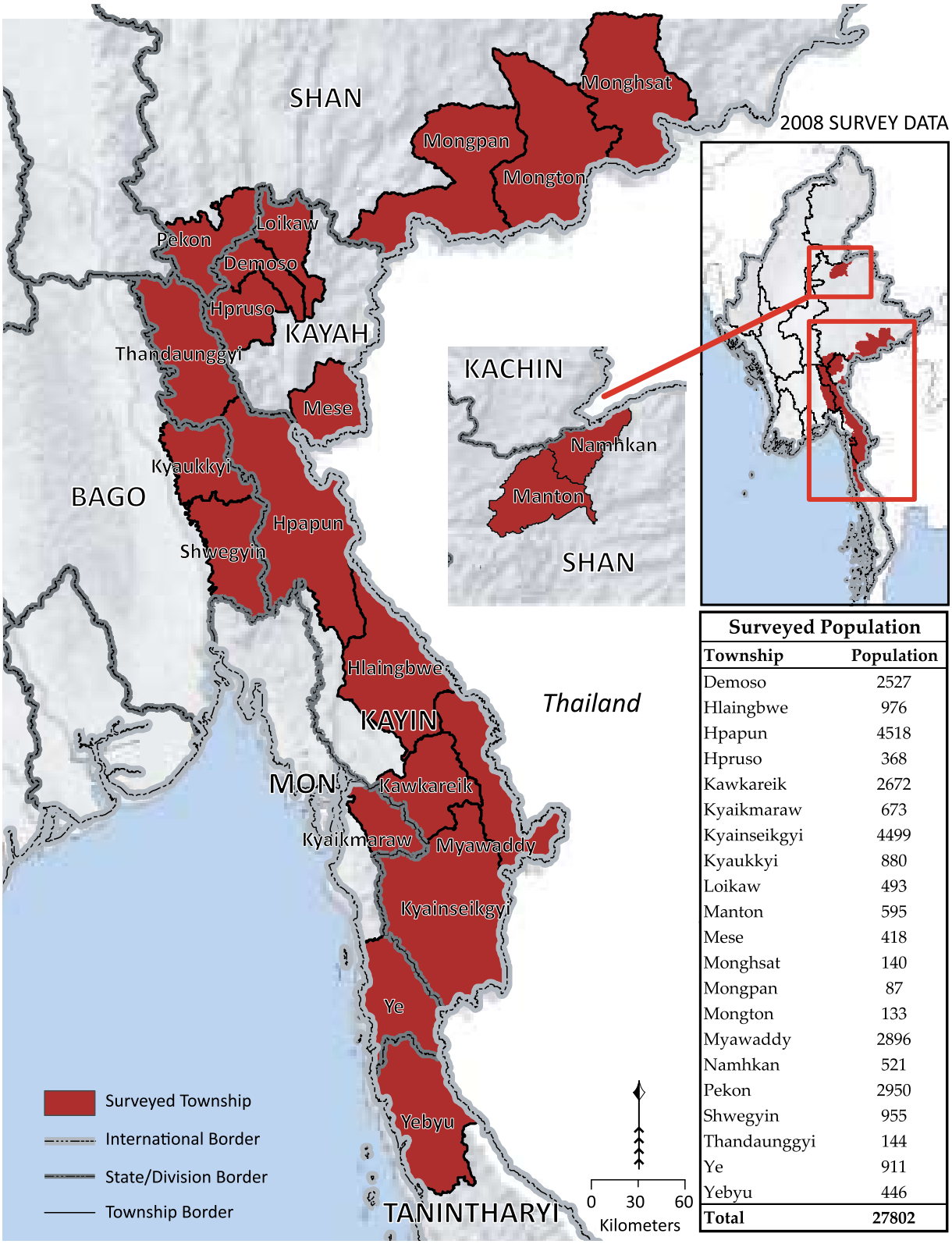
Most statistics in the report are pooled across areas. These areas have extremely different political situations and varying levels of health service delivery. Results therefore vary substantially when analyzed by geographic area.

Since the area of survey implementation was based on service provision areas of participating organizations, it is possible that the sampling frame excluded areas where security is too poor for service implementation. In addition, some areas where security was especially poor were not able to return data. Considering these limitations, the returned results likely do not represent the worst-case scenario.

Myanmar Ministry of Health (MMOH) data is used for comparison purposes in this report. The ministry has sporadically released national figures regarding the greatest health threats faced by the country, usually showing a gradual improvement over previous years. It remains unclear whether, within these national averages, such as those released in 2007, the figures for the eastern states have been included. Though officially published statistics have been broken down by states (implying data collection at sub-state level), there has been little evidence that state programs are functioning at all in the areas covered by this survey. Whether or not these data have been collected and included by the MMOH is impossible to ascertain.

Medic using Paracheck rapid diagnostic test for malaria in Karen State

SURVEY AREAS



Surveyed Population	
Township	**Population**
Demoso	2527
Hlaingbwe	976
Hpapun	4518
Hpruso	368
Kawkareik	2672
Kyaikmaraw	673
Kyainseikgyi	4499
Kyaukkyi	880
Loikaw	493
Manton	595
Mese	418
Monghsat	140
Mongpan	87
Mongton	133
Myawaddy	2896
Namhkan	521
Pekon	2950
Shwegyin	955
Thandaunggyi	144
Ye	911
Yebyu	446
Total	**27802**

Between September 2008 and January 2009, 45 surveyors traveled to 221 (out of 273 planned) villages spread over 21 townships, in four states and two divisions in eastern Burma, selecting houses at random in each village to conduct the survey. Surveyors had planned to visit 8,190 households; of this number 6,372 houses were eventually reached. These 6,372 households were invited to participate in the survey, and among those, 6,181 gave consent to participate, yielding a response rate of 97.2%. The analysis presented in this report excludes surveys in camps for internally displaced people and is based on a sample of 5,754 households.

The surveys were undertaken across various regions including ceasefire areas, areas of oscillating political/military control, and those areas that continue to experience low-level conflict. Due to insecurity in the area of survey implementation, some clusters were dropped following cluster selection. In addition, surveyors were instructed to choose the nearest secure village if they found that assigned villages were too unstable for survey implementation when they were in the field. The poor security situation within conflict areas meant that survey data from some areas was unable to be returned.

The average number of households per village was 28.6, and that the average household size was 5.0 persons.

Planned vs Reached Survey Areas

Eastern Burma	Planned	Actual
# of villages	273	221
# of households	8,190	6,372
Total consenting households	-	6,181
Total households included in this analysis	-	5,754
% of planned villages reached	-	80.1%
% of planned households reached	-	75.6%
Response rate	-	92.2%

The tables below indicate the regional scope of the survey and the ethnic breakdown of the sampled populations as well as the number of planned households and villages in comparison to the number of households and villages that were reached.

Number of Households per Township

State/ Division	Township	Households
Bago	Kyaukgyi	163
Bago	Shawegyin	167
Kayah	Demawso	465
Kayah	Loikaw	106
Kayah	Maesat	89
Kayah	Phruso	61
Kayin	Hlaingbwe	171
Kayin	Kaw Kareik	616
Kayin	Kyainseikgyi	1,078
Kayin	Myawaddy	660
Kayin	Papun	808
Kayin	Thandaung	30
Mon	Kyeikmaraw	208
Mon	Ye	178
Shan	Manton	99
Shan	Mongpan	17
Shan	Maongsat	30
Shan	Mongton	30
Shan	Namkham	99
Shan	Pekhon	589
Tanintharyi	Yephyu	90
Total		5,754

Note: Tables and maps in this report use “official” township and state names to assist in comparison of data. Otherwise, the report uses the names Karen (Kayin), Karenni (Kayah) and Tenasserim (Tanintharyi)

REPORT FINDINGS:

Demographic characteristics

Mortality

Malaria

Diarrhea

Malnutrition

Reproductive Health

Human rights violations

- Displacement
- Forced labor
- Destruction and seizure of food
- Forced growing of jatropha
- Physical threats and violence

Impact of human rights violations upon health

DEMOGRAPHIC CHARACTERISTICS

KEY INDICATORS

- **Eastern Burma demographics are characterized by high birth rates, high death rates and the significant absence of men under the age of 45.**
- **Eastern Burma demographics are more comparable to recent war zones such as Sierra Leone than to Burma's national demographics.**

FINDINGS AND ANALYSIS

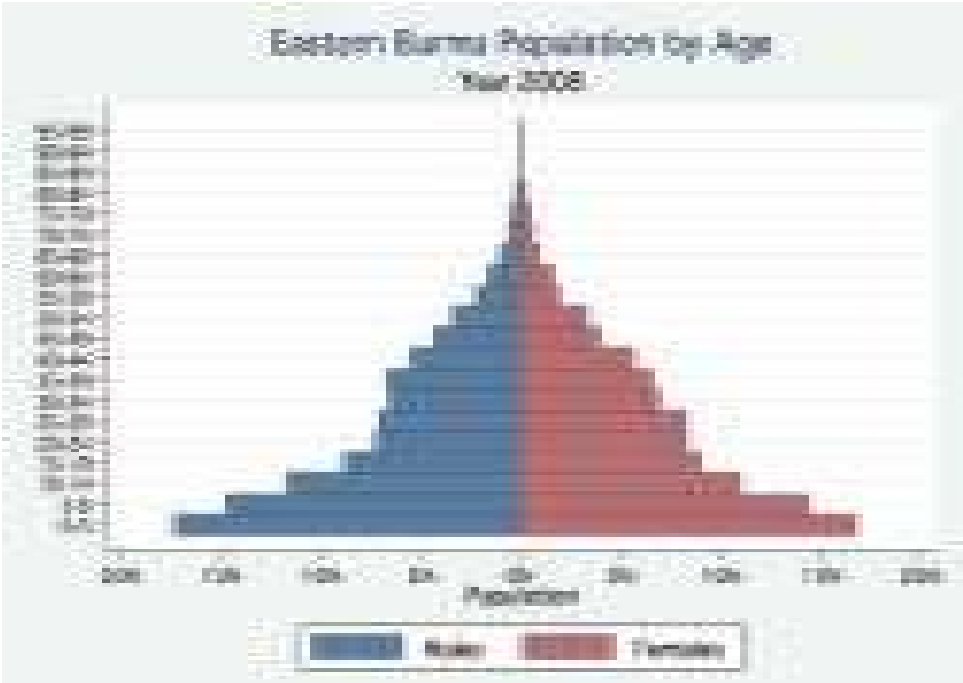
The demographic characteristics of the surveyed population are represented by the population pyramid on the adjacent page. A population pyramid consists of two bar graphs placed back-to-back. Males are plotted on the left, and females are on the right. The pyramid for eastern Burma is triangular, with a broad base that quickly narrows indicating that there is a high birth rate; high death rates, particularly of children; and a short life expectancy. Such patterns are common where access to basic healthcare, particularly reproductive health services, preventive healthcare, and sanitation, is limited or unavailable.

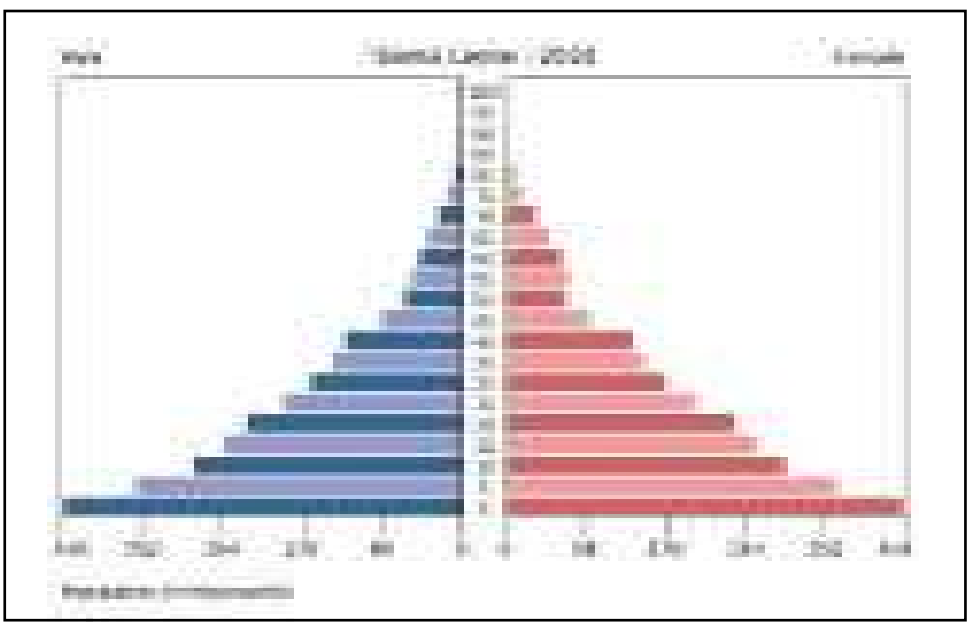
This survey found that the overall male to female age ratio in eastern Burma is 0.989, indicating a greater number of females in the population relative to men. For the 15-64 year-old bracket, the male to female ratios was 0.961; it was even lower for the 15-45 year-old bracket, at 0.938. The conspicuous relative absence of men in these age ranges is a finding common in settings of long-standing conflict, as young men are lost to recruitment and fighting. A comparable figure for the 15-64 age bracket is 0.92 for Sierra Leone, another country which until recently had a long-running civil conflict.[20]

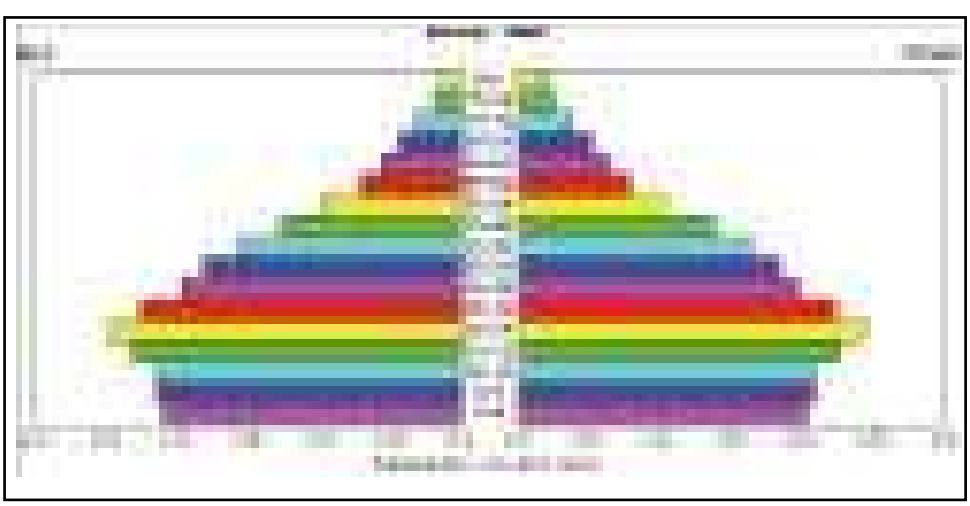
Nationwide in Burma, the official crude birth rate is 21 births per 1,000 of population; the equivalent figure for surveyed communities of eastern Burma is 35.[21]

The population pyramid for eastern Burma differs markedly from the official pyramid for the country as a whole. Nationally, Burma has lower birth rates and lower mortality rates than eastern Burma, hence the different shape of the national population pyramid to the eastern Burma pyramid. In addition the male to female national ratio is much more balanced: for those aged 15-64, the ratio is 0.99.[22]

[20] CIA World Factbook, Field Listing: Sex Ratio. 2010 estimate.
[21] United Nations Children's Fund. At a glance: Myanmar. Accessed August 4, 2010.
[22] CIA World Factbook, Field Listing: Sex Ratio. 2010 estimate.


Eastern Burma Population by Age
Year 2008
Population





MORTALITY

KEY INDICATORS

- **60.0% of deaths in children under 5 are from preventable and treatable diseases.**
- **Mortality rates for eastern Burma are higher than national rates.**

FINDINGS AND ANALYSIS

Data collected from eastern Burma confirms high mortality rates in surveyed populations, particularly in women and children.

Mortality Rates

	Eastern Burma	Burma	Thailand	MDG Target for Burma for 2015
Maternal mortality ratio (deaths per 100,000 live births)	721	240[a]	48[a]	50
Under-5 mortality rate (per 1,000 live births)	138	71[b]	14[b]	39
Infant mortalty rate (per 1,000 births)	73	54[b]	12[b]	28

[a] Source: Trends in Maternal Mortality: 1990 to 2008. WHO 2010. Ratio for 2008.
[b] Source: Levels & Trends in Child Mortality. UNICEF 2010. Rates for 2009.

Causes of death in survey area

	Children under 5 (%)	All ages (%)
Malaria	27.7	24.7
Diarrhea	17.4	14.9
Acute respiratory infection	14.9	19.5
Landmine injury	0.0	0.6
Gunshot wound	0.0	1.7
Pregnancy-related	0.0	2.2
Neonatal	27.2	11.4
Other	12.9	24.9
Total	100.0	100.0

Overall, for children under the age of five, the top causes of death are preventable. Malaria was responsible for 27.7% of deaths, followed by diarrhea (17.4%) and acute respiratory infection (14.9%). Among children under five, 27.2% of deaths were reported to occur during the neonatal phase (the first 28 days of life).

Across all age groups, malaria accounts for a quarter of all deaths (24.7%). The other leading causes are acute respiratory infection (19.5%), followed by diarrhea (14.9%). Another 2.2% of deaths were related to pregnancy. Gunshot wounds and landmine injuries resulted in deaths in a small number of instances, 0.6% and 1.7% respectively.

The mortality rates for eastern Burma differ from official figures for the country as a whole. The under-five mortality rate in border areas of 138 is higher than the national figure for Burma of 71. Maternal mortality ratios in the eastern survey areas were also higher at 721 deaths per 100,000 live births, than national averages for Burma at 240, and far higher than neighboring Thailand at 48.

Medic using Paracheck to test for malaria in Karen State

MALARIA

KEY INDICATORS

- **Malaria was the leading cause of death for all ages and caused 27.7% of deaths among children under five.**
- **One out of every 14 women had *Plasmodium falciparum* (Pf), the most dangerous type of malaria at the time of the survey.**

FINDINGS AND ANALYSIS

Malaria accounts for almost a quarter of deaths (24.7%) across all ages in the surveyed areas. It was particularly dangerous for children, causing 27.7% of all deaths of children under five. The current survey results showed a prevalence of *Plasmodium falciparum* (Pf) across all eastern regions of 7.3% among heads of households (95% of those tested for malaria were women, and 93% were mothers), further confirming a very high burden of malaria in eastern Burma. There was significant regional variation in malaria prevalence; the lowest levels were reported in Mon State at 1.5%, and Shan State had the highest prevalence levels at 20.4%.

Malaria Prevalence by Ethnic Area

Shan	20.4%
Bago	6.7%
Kayin	4.9%
Mon	1.5%
Kayah	8.3%
Tanintharyi	13.5%

According to official figures, Burma has the highest proportion of malaria cases due to *Plasmodium falciparum* (Pf), the highest malaria case fatality rate and the largest overall number of malaria-related deaths (1,088 deaths in 2008) in Southeast and South Asia.[23]

The Myanmar Ministry of Health (MMOH) national malaria mortality rate for 2008 was 2.7 per 100,000, and the morbidity rate in 2008 was roughly 10.2 per 1,000 cases.[24] Enormous discrepancies exist, however, between the official figures for recorded malaria cases in eastern Burma and those from community groups working on the ground, which use confirmed caseload numbers rather than estimates. As a case in point, in 2003, MMOH reported 2,016 confirmed cases of malaria in Karen State, whereas in the same year, two community health groups working with an IDP population of only 300,000 people in Karen State reported treating 27,000 people with malaria.[25] Such a massive difference in statistics demonstrates the chronic under-reporting of health statistics by the Burmese authorities.

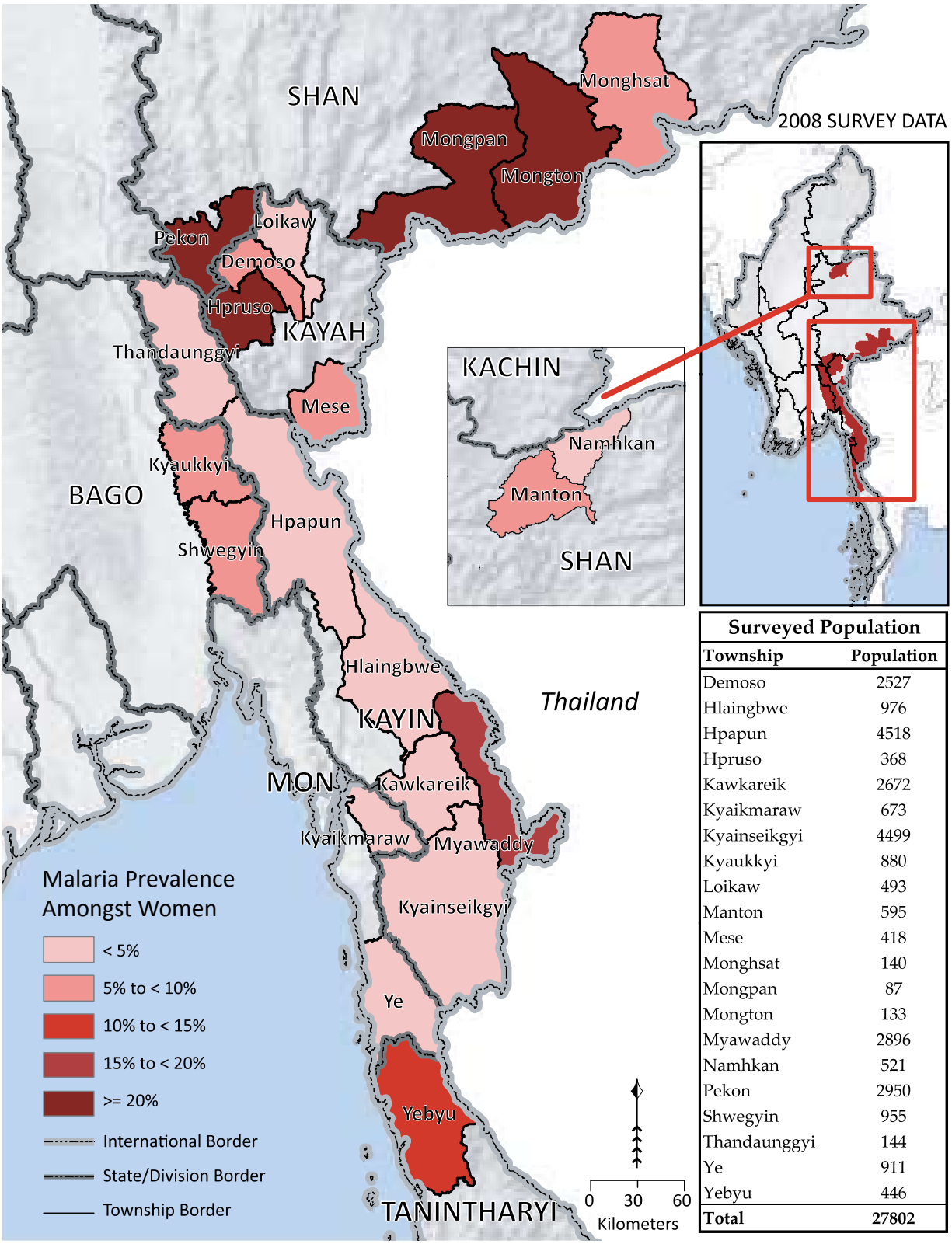
The malaria map on the adjacent page shows that the situation in the eastern states is critical. Emerging resistance to artemisinin, coupled with high ongoing mobility of populations in the east, compounds the need for increased attention, particularly to issues of lack of access to health and drivers of migration.

[23] World Health Organization - Regional Office for Southeast Asia. Malaria Situation in SEAR Countries - Myanmar. 2008.

[24] World Health Organization - Regional Office for Southeast Asia. Malaria Situation in SEAR Countries - Myanmar. Reported Malaria Morbidity (/1000) and Mortality Rate (/100,000) in Myanmar, 2000-2008.

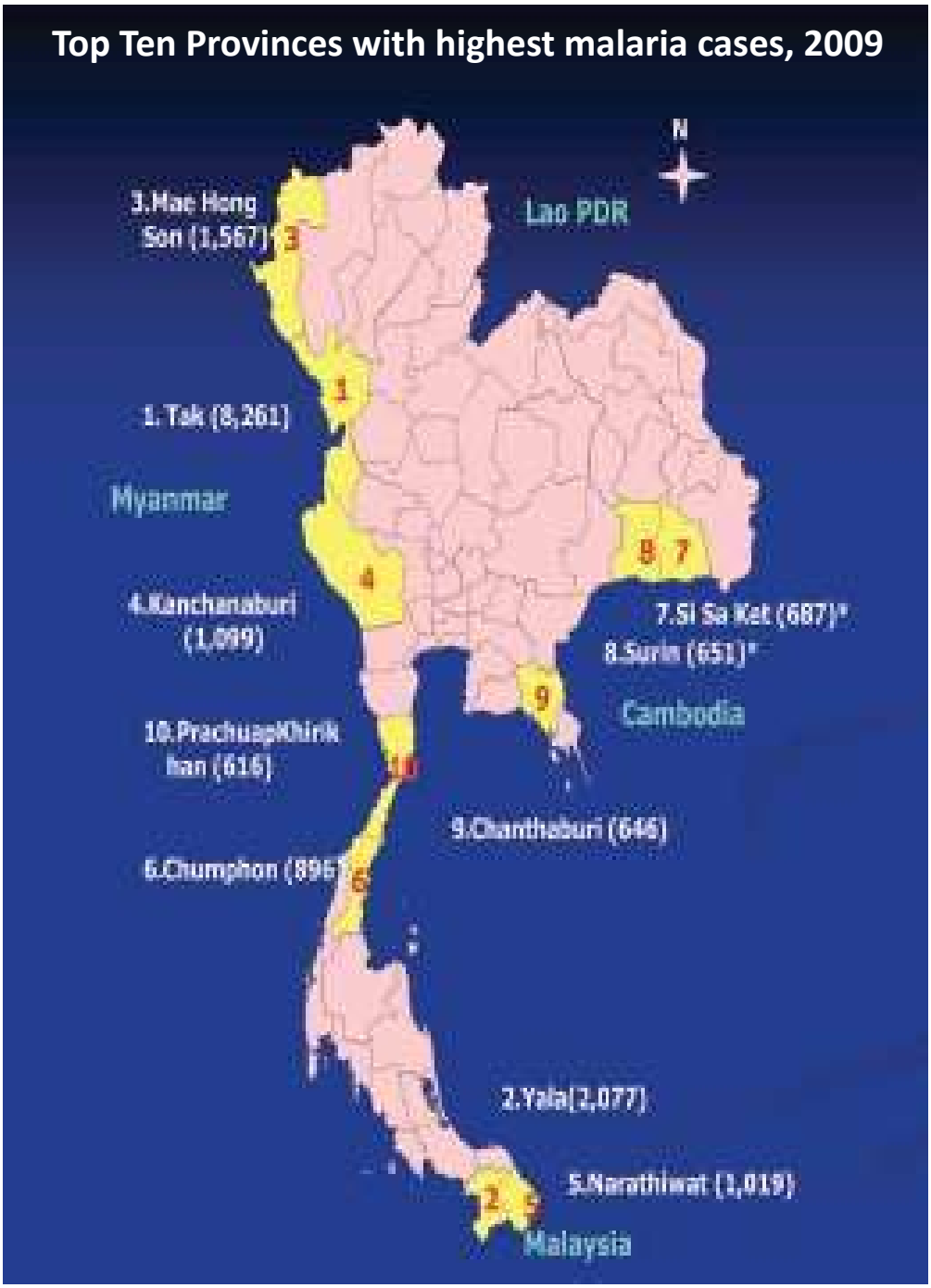
[25] Adam K Richards, Linda Smith, Luke C Mullany et al. Prevalence of plasmodium falciparum in active conflict areas of eastern Burma: a summary of cross-sectional data. Conflict and Health. September 5, 2007.

Malaria Prevalence Amongst Women



Surveyed Population	
Township	**Population**
Demoso	2527
Hlaingbwe	976
Hpapun	4518
Hpruso	368
Kawkareik	2672
Kyaikmaraw	673
Kyainseikgyi	4499
Kyaukkyi	880
Loikaw	493
Manton	595
Mese	418
Monghsat	140
Mongpan	87
Mongton	133
Myawaddy	2896
Namhkan	521
Pekon	2950
Shwegyin	955
Thandaunggyi	144
Ye	911
Yebyu	446
Total	**27802**

Thailand malaria cases



Source: Malaria Cluster, Department of Disease Control, MOPH.

These realities today pose an increasing threat to the public health of the region and beyond. Consistently, Thailand's Tak Province, which abuts Karen State, has the highest rates in Thailand. Tak is home to hundreds of thousands of migrant workers and refugees from the eastern states, and figures from the province in previous years show malaria prevalence among Burmese migrants as being up to twenty times higher than for the Thai population.[26]

Migrants account for more than half (55%) of Thailand's malaria caseload[27], and malaria prevalence in Thailand increases in relation to proximity to the Burma border.[28]

[26] Wiwanitkit V. High prevalence of malaria in Myanmar migrant workers in a rural district near the Thailand-Myanmar border. Scand J Infect Dis 2002, 34(3):236-237, cited in Adam K Richards, Linda Smith, Luke C Mullany et al. Prevalence of Plasmodium falciparum in active conflict areas of eastern Burma: a summary of cross-sectional data. Conflict and Health. September 5, 2007.

[27] Country Coordinating Mechanism (CCM) Thailand. Partnership towards malaria reduction in migrants and conflict-affected populations in Thailand. 2009.

[28] "Internally displaced human resources for health: village health worker partnerships to scale up a malaria control programme in active conflict areas of eastern Burma." Global Public Health. January 2009: Vol. 00, No. 0, Month 2008, pp. 1-13.
Spatio-temporal distribution of Plasmodium falciparum and p. Vivax malaria in Thailand. American Journal of Tropical Medicine and Hygiene. March 2005: 72(3), 2005, pp. 256–262.

Woman and child receiving insecticide-treated mosquito net from community health workers

DIARRHEA

KEY INDICATORS

- **Among all deaths in children under five, nearly 1 in 6 were attributable to diarrhea.**
- **Over 10% of children under five had diarrhea within the two weeks prior to the survey.**

FINDINGS AND ANALYSIS

Diarrhea was very common in the surveyed population, with 6.4% of people having suffered from diarrhea in the two weeks prior to the survey. Among children under five, the figure was higher at 10.7%, and within this age group diarrhea was the third leading cause of death (17.4%). For people of all ages, diarrhea also ranked third as the cause of death at 14.9%; a high number particularly given that this could be reduced simply through consumption of oral rehydration salts (ORS) – a mixture of water, salt, and sugar that is cheap and can be easily made at home.[29] Loss of fluids and salts during diarrhea can lead to malnutrition and even death if dehydration becomes severe; for these reasons, diarrhea is the leading cause of malnutrition for children under five.[30] In surveyed communities, less than half of all people (37.5%) who had diarrhea took ORS; the comparable figure for children under five was 32.6%.

48.7% of households did not have a latrine or other facility to use, a critical consideration given that 88% of child diarrhea worldwide results from poor sanitation systems, insufficient access to clean water, and inadequate hygiene.[31] The high percentage of households without a latrine is consistent with the high rates of diarrhea seen both in children under five and across all ages.

The lack of access to simple, cost-effective interventions for addressing this problem is currently a priority for some of the community health organizations, which are building water and sanitation systems.

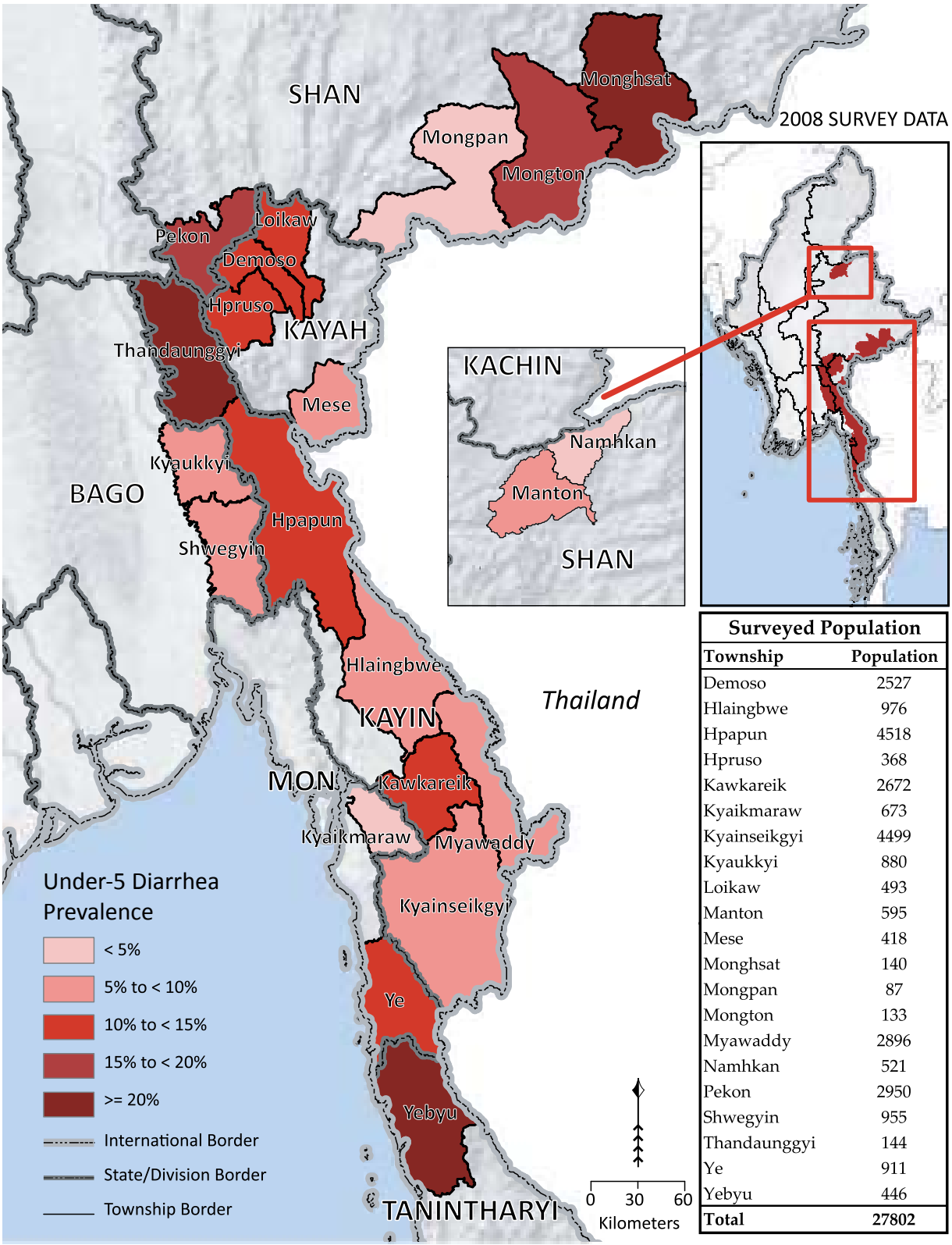
Digging latrine as part of community sanitation program in Karenni State

[29] Cesar G. Victora, Jennifer Bryce, Olivier Fontaine et al. Reducing deaths from diarrhoea through oral rehydration therapy. Bulletin of the World Health Organization, 2000, 78: 1246–1255. 2000.

[30] World Health Organization. Fact Sheet: Diarrhoeal Disease. August 2009.

[31] United Nations Children's Fund / World Health Organization. Diarrhoea: Why children are still dying and what can be done. 2009.

Under-5 Diarrhea Prevalence



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Pekon	2950
Shwegyin	955
Thandaunggyi	144
Ye	911
Yebyu	446
Total	**27802**

MALNUTRITION

KEY INDICATORS

- **41.2% of children are acutely malnourished**
- **The Global Acute Malnutrition Rate in eastern Burma is 12.6%, indicating a serious nutrition crisis according to WHO standards**
- **Nearly half (47.1%) of households did not have iodized salt at the time of the survey.**

FINDINGS AND ANALYSIS

The World Health Organization has developed a system for assessing the severity of nutrition crises using an indicator called the Global Acute Malnutrition (GAM) rate. When the prevalence of moderate to severe acute malnutrition measured by mid-upper arm circumference is between 10% and 14.9%, the nutrition crisis can be considered "serious," and if the prevalence is greater than or equal to 15%, the situation is considered "critical." A GAM rate between 10% and 15% is considered to be above the threshold for a "serious" humanitarian emergency and signals a need for action according to the WHO. This survey found that the Global Acute Malnutrition Rate in eastern Burma is 12.6%. As shown in the adjacent map, in three townships, the situation qualifies as "critical." These results demonstrate a need for intervention through supplementary feeding programs.

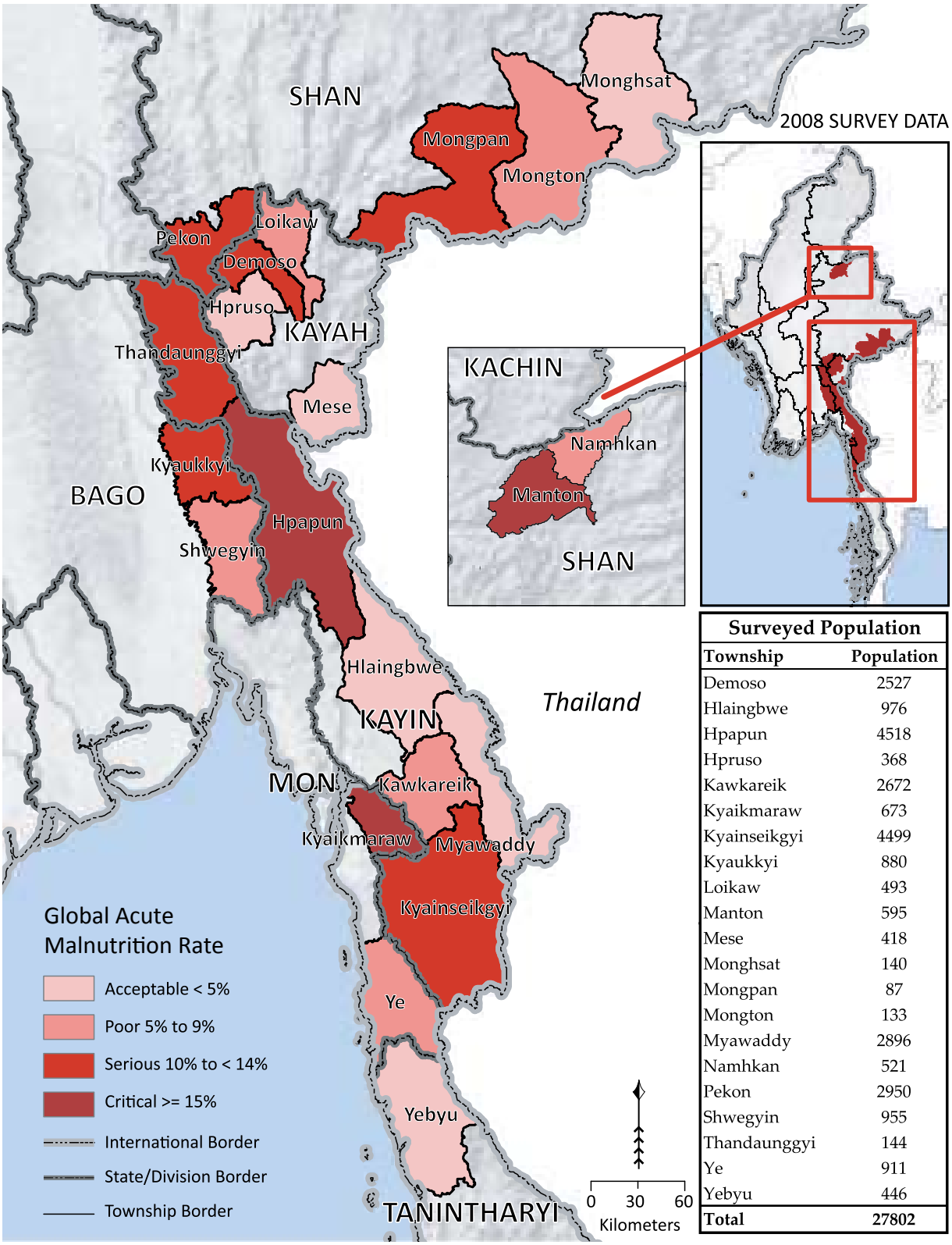
Almost one half of households (47.1%) did not have iodized salt in their home at the time of the survey. In contrast, according to official statistics, 93% of households have iodized salt.[32] These findings warrant intervention through supplementary and/or therapeutic feeding programs,[33] given that iodine deficiency disorders are the world's leading preventable cause of brain damage, and these disorders can have significant impacts upon IQ.[34] Access to iodized salt is crucial in avoiding iodine deficiency in children under five, which is associated with mild developmental disability, mild intellectual impairment, hypothyroidism and stunting, an indicator of chronic malnutrition.[35] Pregnant women with mild iodine deficiency are at increased risk of miscarriage and restricted fetal growth, and the fetus is at risk of impaired motor and mental development.[36]

Vitamin A supplementation for children under age 12 in the surveyed areas is 20.0%, in stark contrast to UNICEF's 2008 figure for Burma citing 94% coverage.[37] Vitamin A deficiencies can have severe consequences for both children and mothers in particular, ranging from blindness to increased vulnerability to infection from common childhood illnesses such as measles and diarrhea, and is linked to 20% of maternal mortality worldwide.[38]

Taken together, these findings indicate that malnutrition is more common in eastern Burma compared to the country as a whole, and poses a serious threat to health, particularly given the high burden of infectious diseases, including Pf malaria, in this part of the country.

32 United Nations Children's Fund. At a glance: Myanmar. Accessed August 4, 2010.
33 World Health Organization. The management of nutrition in major emergencies. 2000.
34 World Health Organization. Assessment of Iodine Deficiency Disorders and Monitoring their Elimination. 2007.
35 Tanuja Rastogi, Colin Mathers. Global burden of Iodine Deficiency Disorders in the year 2000. 2000.
36 Robert E Black, Lindsay H Allen, Zulfiqar A Bhutta et al. Maternal and child undernutrition: global and regional exposures and health consequences. Lancet Series. 2008.
37 United Nations Children's Fund. Tracking Progress on Child and Maternal Nutrition. November 2009.
38 World Health Organization. Immunization, Vaccines and Biologicals: Vitamin A Supplementation. Accessed 28 July 2010.

Global Acute Malnutrition Rate



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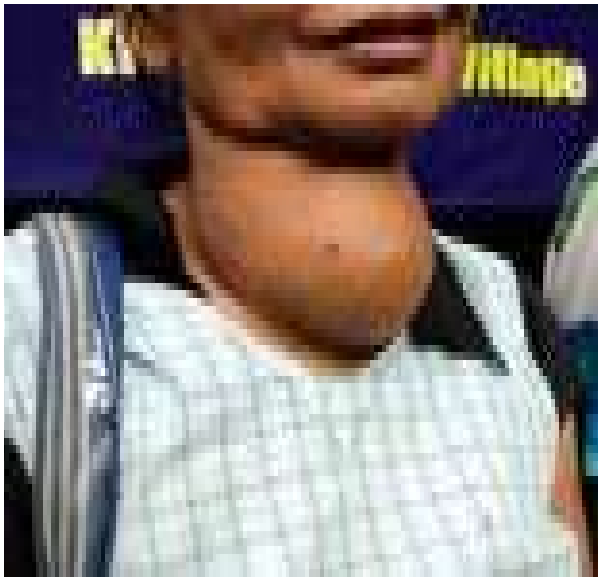
Ye	911
Yebyu	446
Total	**27802**

ABOVE: Malnourished baby in Mon State
BELOW: Medic treating young girl in Karen State; Woman with goiter in Karen State



REPRODUCTIVE HEALTH

KEY INDICATORS

- **Only 14.7% of women surveyed met international recommendations for iron supplementation during their last pregnancy.**
- **78.2% of women did not use any form of modern contraception.**
- **In women of reproductive age, 18.0% were malnourished, placing them in danger of delivering infants with low birth weight, which increases the risk of infant death.**

FINDINGS AND ANALYSIS

Modern contraceptives, such as oral contraceptive pills or hormonal injections, are among the safest and most cost-effective methods of preventing maternal mortality and reducing the risk of unsafe abortions.[39] Yet only 21.8% of female respondents in the eastern Burma survey reported using any form of modern contraception, in contrast to official figures released by the WHO, citing 37% for Burma as a whole.[40] This survey found that of those that did use contraception, Depo-Provera was the most common form, which 12.8% of women use, followed by oral contraceptive pills, which 7.9% of women use.

During pregnancy, iron supplementation, a simple and cost-effective intervention, reduces the risk of maternal anemia, which is associated with increased risks of preterm labor, low-birth-weight babies and infant mortality[41] and increases the risk of morbidity and mortality due to postpartum hemorrhage, placental abruption, placenta previa, and postpartum infection. It can be particularly life-saving in eastern Burma, given the high prevalence of anemia, as high as 61.1% of all women, according to one survey.[42] Yet only 41.1% of female respondents reported that they took iron supplements at the time of their last pregnancy, and only 14.7% of women surveyed consumed iron supplements for at least 90 days, the duration recommended by the WHO.

Similarly, in women of reproductive age, 18.0% of respondents were malnourished, placing them at risk for intrauterine growth restrictions and delivery of low birth weight babies,[43] a reality that is estimated to contribute to 70 percent of neonatal deaths.[44]

Giving birth without access to adequate care, a situation which is common for mothers in the eastern states, is both dangerous and harrowing as a villager relates below,

39 World Health Organization. Health Benefits of Family Planning. 1995.

40 World Health Organization. Global Health Observatory (GHO). Health-related Millennium Development Goals (MDGs). Country Profile Myanmar. General Health Statistical Profile. 2010.

41 Brabin BJ, Hakimi M, Pelletier D. An analysis of anemia and pregnancy-related maternal mortality. Journal of Nutrition. 2001 Feb; 131; 604S-615S. Accessed September 24, 2010. Brabin BJ, Premji Z, Verhoeff F. An analysis of anemia and child mortality. Journal of Nutrition. 2001;131:636S-648S.

42 Luke C. Mullany, Thomas J. Lee, Lin Yone et al. Impact of Community-Based Maternal Health Workers on Coverage of Essential Maternal Health Interventions among Internally Displaced Communities in Eastern Burma: The MOM Project. 2010.

43 Robert E Black, Lindsay H Allen, Zulfiqar A Bhutta et al. Maternal and child undernutrition: global and regional exposures and health consequences. Lancet Series. 2008.

44 United Nations Children's Fund. State of the World's Children 2009.

"Some pregnant women have to give birth in the forest where there's no bed, no mat or no chair to sit on, no hot water to warm their bodies and no shelter to sleep in. In some cases, the husbands are busy working to get food, and their children are too small to look after their mother. It's very difficult for them." Saw Gi--- (male, 45), Ze--- village, Lu Thaw Township (December 2009)[45]

Reproductive health deficits were revealed by the survey, including lower rates of contraceptive use in the eastern populations in comparison to the national averages, poor access and low adherence to iron supplementation recommendations.

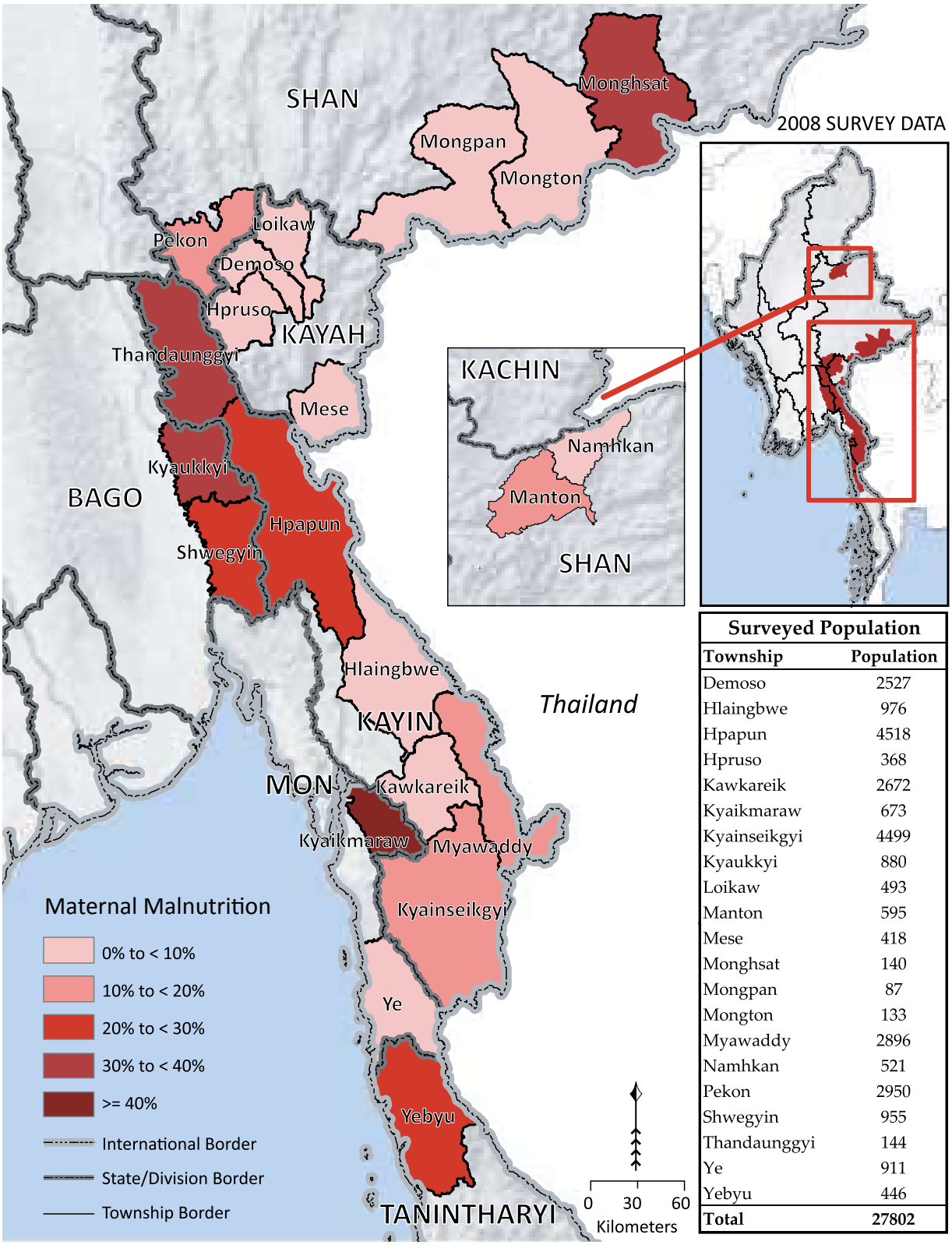
As a result, one priority for local community health organizations has been to expand access to basic reproductive health care in eastern Burma. Already, data from a pilot project to expand the number of basic village health workers, along with increasing their capacity to deliver basic, critical obstetric emergency care, has been shown to dramatically increase access to antenatal care, malaria screening, de-worming, skilled attendants at birth, and basic family planning services, showing that improving reproductive health can be achieved in a transparent, reproducible and measurable fashion, even within unstable settings.[46]

[45] Karen Human Rights Group. Self-protection under strain: Targeting of civilians and local responses in northern Karen State. 2010.

[46] Burma Medical Association, Mae Tao Clinic, Karen Department of Health and Welfare, Shan Health Committee, Mon Health Department, Karenni National Health Organization. The Mobile Obstetrics Maternal Health Worker Project (MOM): Increasing access to reproductive health services in eastern Burma. 2010. Luke C. Mullany, Thomas J. Lee, Lin Yone et al. Impact of Community-Based Maternal Health Workers on Coverage of Essential Maternal Health Interventions among Internally Displaced Communities in Eastern Burma: The MOM Project. 2010.

Traditional Birth Attendant examines expectant mother in Karen State

Maternal Malnutrition



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HUMAN RIGHTS VIOLATIONS

KEY INDICATORS

- **Nearly one third of all households experienced at least one type of human rights abuse within the preceding year.**
- **Children in households that were internally displaced in the prior year were 4.8 times more likely to suffer severe acute malnutrition in comparison to those from households that were not internally displaced.**
- **The odds of dying within the first year of life were increased 2.5 times for infants in households that were forced to provide labor compared to those in households that did not experience this violation.**

FINDINGS

In addition to collecting basic information about demographics and health in communities of eastern Burma, the survey also queried respondents about human rights abuses they experienced in the preceding year. The abuses selected for this survey were those that have commonly been reported in eastern Burma and have negative impacts on health.[47] The survey did not include all human rights abuses however and so the percentage of households experiencing human rights abuses could be higher.

The findings of this survey were consistent with other published data regarding human rights abuse in the east.[48] Rather than being sporadic, isolated events, human rights violations were widespread, suggesting that they were systematic in nature. Overall, almost a third of households surveyed experienced at least one violation in the preceding twelve months, with considerable geographic variation (table below).

Number of Households Experiencing Human Rights Violations by State/Division

State/Division	Number of households experiencing violations	Total households	%
Bago	114	330	38.7
Kayin	717	3,239	23.0
Kayah	392	691	56.7
Mon	231	381	55.6
Shan	334	860	27.5
Tanintharyi	5	90	5.6
Total	1,793	5,591	30.6

[47] Back Pack Health Worker Team. Chronic Emergency: Health and Human Rights in Eastern Burma. 2006.

[48] Report of the Special Rapporteur on the situation of human rights in Myanmar. Paulo Sergio Pinheiro. UN Human Rights Council (UHC). February 12, 2007.
International Committee of the Red Cross (ICRC). ICRC Annual Report 2007.

Displacement

In the year prior to the survey, some 229 households (5.6% of households) were forced to relocate due to security concerns. Displacement was most common in eastern Bago Division, where 22.2% of households were forced to move in the year prior to the survey. Rapid displacement in the face of military threats can severely impact livelihoods and may leave families with few to no possessions, as the following quote from a Karen villager makes clear.

Destruction and seizure of food

Just over a tenth (11.7%) of households experienced threats to their food security; in particular, destruction of crops (2.3% of households), confiscation or killing of livestock (3.8% of households), and destruction of food supplies (1.8% of households) is common. 8.6% of respondents indicated that, in the preceding year, they had been forced to give food to soldiers or other authorities.

Number of Households Displaced by State/Division

State/Division	Number of households displaced	Total households	%
Bago	66	330	22.2
Kayin	148	3,239	5.7
Kayah	3	691	0.4
Mon	0	381	0.0
Shan	12	860	0.8
Tanintharyi	0	90	0.0
Total	229	5,565	5.6

"We farmed flat fields when we were at our village. So when we fled, we had to leave our paddy fields and couldn't go back to farm them again. We lost our poultry that we had raised. We also had to leave our furniture, tools, and clothes. We lost everything. That day, the Burmese attacked the village suddenly so we just fled with only one load with us. We lost rice plants, our rice stores and everything else."- Naw Ne--- (female, 41), F--- village, Lu Thaw Township (December 2009)[49]

[49] Karen Human Rights Group (KHRG). Self-protection under strain: Targeting of civilians and local responses in northern Karen State. 2010.

Forced labor

Across all surveyed areas, 8.7% of households had at least one occupant who had been forced to provide labor in the year prior to the survey. Of those who reported having been forced to do labor, the average number of days of labor provided per year was 22.7. The deleterious effects of forced labor on households are widely documented. Forced labor commonly goes unpaid, and those forced to porter for the military are routinely beaten, underfed, and are sometimes shot if they are unable to fulfill their obligations.[50] Forced labor demands are frequent enough in some areas to make villagers flee their homes to escape the demands, as is illustrated by the following Karen villager,

"We became Internally Displaced Persons because we were disturbed, abused and forced to do forced labour. We were forced to porter again and again. It never ends, [the demands] to porter. As we had to comply longer and longer, we couldn't afford to do that anymore so we fled" - Saw Fu--- (male, 26), Pi--- village, Dweh Loh Township (December 2009)[51]

Forced labor is a direct threat to the food security of impoverished families, costing the family time that could have been spent carrying out livelihoods that would provide food. If the family is unable to send a member to perform forced labor, a fine is often applicable, which again, directly impacts family income and food security.

Number of Households Experiencing Forced Labor by State/Division

State/Division	Number of households experiencing forced labor	Total households	%
Bago	30	330	10.4
Kayin	365	3,219	8.7
Kayah	1	689	0.1
Mon	0	380	0.0
Shan	267	857	22.2
Tanintharyi	2	89	2.2
Total	665	5,564	8.7

"Every household has to provide forced labor in rotation. The villagers don't have time to work on their own farms and so they need to go looking for food in the forest. This puts them in danger of stepping on land mines. Several people have been injured in this way."
- Field Medic in Hlaingbwe Township, Karen State, 2010

[50] Karen Human Rights Group (KHRG). Less than Human: Convict Porters in the 2005 - 2006 Northern Karen State Offensive. August 22, 2006.
[51] Karen Human Rights Group (KHRG). Self-protection under strain: Targeting of civilians and local responses in northern Karen State. 2010.

Forced growing of jatropha

Households in the survey area reported being forced to participate in the SPDC's failed agricultural venture to plant jatropha across the country. Jatropha is a small bush-like tree that can be used to generate bio-fuel.[52] The project has essentially failed due to poor planning and implementation, and has been forced upon the population, wasting time and resources and negatively impacting livelihoods and food security. Almost a tenth of households responding to the survey (9.5%) had been forced to grow Jatropha in the prior year. The results varied across areas, for example, in the Kayah State, the percentage was 56.7%.

Forced planting of jatropha in Shan State

Number of Households Forced to Grow Jatropha by State/Division

State/Division	Number of households forced to grow jatropha	Total households	%
Bago	0	330	0.0
Kayin	74	3,239	0.7
Kayah	392	691	56.7
Mon	178	381	36.8
Shan	37	860	3.2
Tanintharyi	0	90	0.0
Total	681	5,591	9.5

Physical threats and violence

Across the surveyed areas, respondents reported 52 cases of gunshot injuries, 13 stabbings, and 83 beatings. 127 people reported having been detained and 64 people responded that they had been tied up. A further 149 people suffered from landmine injuries at some stage in the past 15 years. Violent acts against civilians are commonly perpetrated by SPDC troops and continue to affect the lives of villagers living in the militarized setting of the eastern states. Frequently these acts are perpetrated with impunity and without any justification as recounted below,

"The villager who got shot by the Burmese soldier was Saw Bar Kuu, 35, from Mar Lar Taw village. Another villager who was injured and also was from Mar Lar Taw village, is Saw Muu Tar an 11 year old [boy]. I do not know why the soldier shot them, but I do know them in person very well and they are innocent villagers….. I am not sure why the soldiers shot at innocent people, but I guess that the soldiers must think that they can shoot any villager from this village and can shoot and kill whoever they want." - Anonymous witness from Mar Lar Taw village (Bago Division)[53]

[52] Ethnic Community Development Forum. Biofuel by Decree: Unmasking Burma's Biofuel Fiasco. 2008.

[53] Human Rights Foundation of Monland. SPDC soldiers arbitrarily shoot villager and boy. August 31, 2010.

IMPACT OF HUMAN RIGHTS VIOLATIONS UPON HEALTH

As has been widely published by local, regional, international and UN human rights bodies, abuses against civilian populations in eastern Burma by the Burma Army are common, with deadly immediate impacts.[54] However this survey shows these abuses also have longer-term, serious indirect health outcomes.

In households experiencing at least one human rights violation in the preceding year, the odds of death was increased 50% for infants and 40% for children under age five, in comparison to infants and children living in households that did not experience any human rights violations. Additionally, children living in households experiencing at least one human rights violation in the preceding year had almost twice the odds of suffering from severe malnutrition compared to those living in households that did not experience any human rights violations.

As noted in the adjacent table, individual human rights abuses also were associated with poor health. Survey results showed that the odds of suffering from diarrhea were increased by 60% for children living in households which suffered displacement compared to those in households that were not displaced. In households which were displaced, women were nine times less likely to use contraception compared to those in households that were not displaced. More than a tenth of households surveyed experienced some threat to food security; for women in these households, this type of abuse increased the odds of not accessing contraception by five times.

Children living in households experiencing threats to food security had an 80% increased odds of suffering moderate to severe acute childhood malnutrition compared to those in households which had not experienced this abuse. Meanwhile children in households experiencing forced displacement had over a three-fold increased likelihood of suffering moderate to severe childhood malnutrition in comparison to those in households that had not been displaced.

Destruction of crops and storage areas by SPDC troops, and forced displacement, are some of the factors that have a large impact on food security and can therefore cause malnutrition; below a villager recounts more than a decade of forced relocation,

"If the SPDC[soldiers] meet the villagers, they kill and torture them. And when they attack our village they burn down or destroy our houses."…."From 1995 till 2008 the SPDC took over many villages. The villagers always had worry about their lives. In 2009, there have been three places destroyed by the SPDC; they are Wa---, Va--- and Ua---. There have been 45 hill fields destroyed." - Saw T--- (male, 42), Ta--- village, Lu Thaw Township (September 2009)[55]

Although forced labor is an abuse that primarily affects an individual, it also has widespread impact on everyone else in the household, in particular the most vulnerable members such as small children, as it severely impacts food security and livelihoods. The odds of dying within the first year of life were increased 2.5 times among infants who were born in households that had at least one person who was forced to do labor, in comparison to those born in households in which no one was forced to do labor. Among children, the odds of dying before age five were increased 1.9 times among children who were born in households that had at least one person forced to work against their will, in comparison to children born in households in which no one was forced to do labor.

[54] Chris Beyrer, Juan Carlos Villar, Voravit Suwanvanichkij. Neglected diseases, civil conflicts, and the right to health. Lancet 2007; 370: 619–27.
Back Pack Health Worker Team. Chronic Emergency: Health and Human Rights in Eastern Burma. 2006.

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Associations between Human Rights Violations, Health, and Mortality

Human Rights Violation	Health Outcome	Increased Odds
Experienced any human rights violation	Infant death	1.5
	Child death	1.4
	Moderate-severe acute child malnutrition	1.7
	Severe acute child malnutrition	1.9
Forced labor	Infant death	2.5
	Child death	1.9
Displacement	Infant death	1.3
	Child death	1.7
	Child diarrhea	1.6
	No contraception use	9.1
	Moderate-severe acute child malnutrition	3.3
	Severe acute child malnutrition	4.8
Destruction and seizure of food	Moderate-severe acute child malnutrition	1.8
	Severe acute child malnutrition	1.6

Displaced women and children in Karen State

CONCLUSION

The ongoing widespread human rights abuses committed against ethnic civilians and the blockade of international humanitarian access to rural conflict affected areas of eastern Burma by the ruling State Peace and Development Council (SPDC), mean that premature death and disability, particularly as a result of treatable and preventable diseases like malaria, diarrhea, and respiratory infections, will continue.

This will not only continue to devastate the health of communities of eastern Burma but also poses a direct health security threat to Burma's neighbors, particularly Thailand, where the highest rates of malaria occur on the Burma border. Multi-drug resistant malaria, extensively drug-resistant tuberculosis and other infectious diseases are growing concerns. The spread of malaria resistant to artemisinin, the most important anti-malarial drug, would be a regional and global disaster.

In the absence of state-supported health infrastructure, local community-based organizations are working to improve access to health services in their own communities. These programs currently have a target population of over 376,000 people in eastern Burma and in 2009 treated nearly 40,000 cases of malaria and have vastly increased access to key maternal and child health interventions. However, they continue to be constrained by a lack of resources and ongoing human rights abuses by the Burmese military regime against civilians. In order to fully address the urgent health needs of eastern Burma, the underlying abuses fueling the health crisis need to end.

RECOMMENDATIONS

To Burma's neighboring countries

(1) In order to assist the peoples of eastern Burma to remain living in their own lands, encourage support for community-managed border based health programs that are providing health care to displaced persons in Burma and collecting vital health information about this neglected population.

(2) To continue and increase cooperation between their respective public health ministries and community-managed border-based health program implementers in order to coordinate effective disease control programs.

To the United Nations, Association of South East Asian Nations & the International Community

(3) To continue and increase pressure on the Burma Army to stop their human rights abuses such as forced labor and forced displacement which are driving the health crisis in eastern Burma.

(4) To support a commission of inquiry into crimes against humanity taking place in Burma.

To United Nations Agencies & International Non-Governmental Organizations providing aid to Burma

(5) To publicly recognize that without addressing factors which drive ill health such as widespread human rights abuses and inability to access healthcare services, a long-term, sustainable improvement in the public health of these areas cannot occur and therefore to include in their programs transparent efforts to address these human rights issues with Burma's rulers.

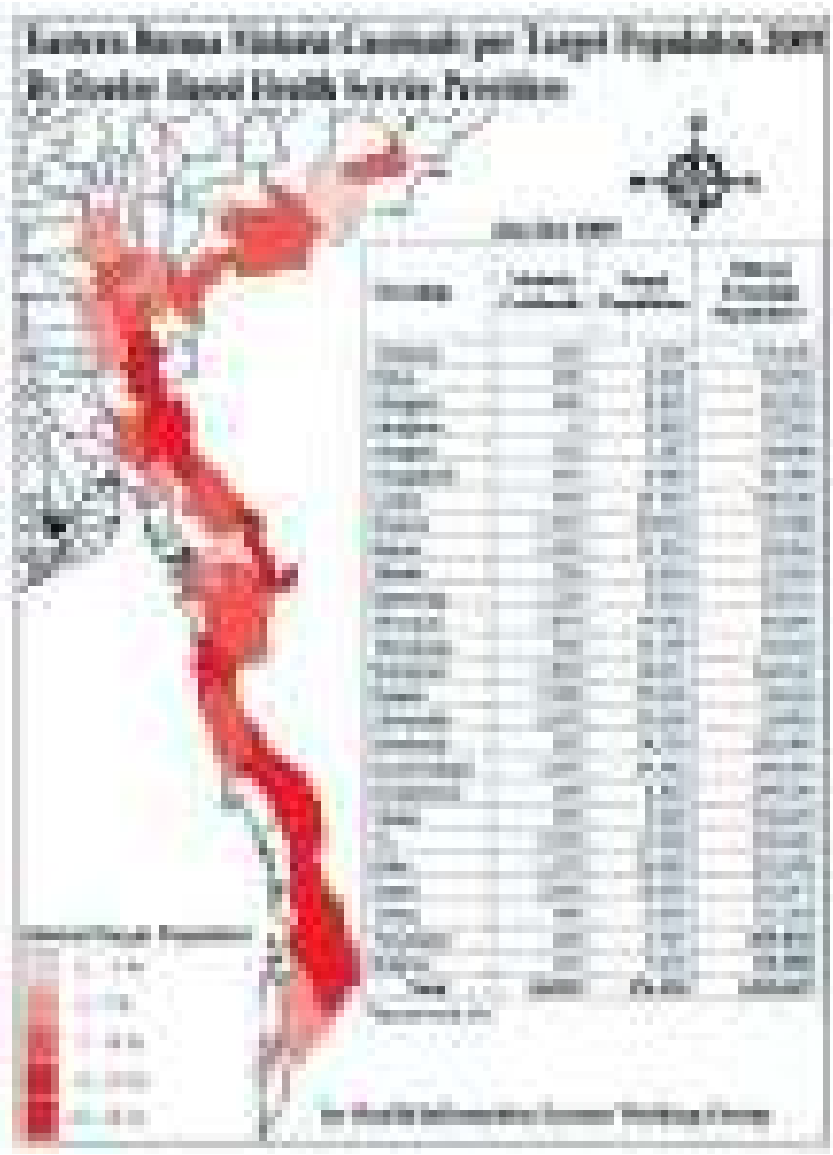
(6) To provide support for community-managed border-based health programs that are providing health care to displaced persons in Burma and collecting vital health information about this neglected population.

(7) To work together with community-managed border-based health program implementers to coordinate effective disease control programs.

APPENDIX 1: ACRONYMS

CBO	Community Based Organization
GAM	Global Acute Malnutrition
IDP	Internally Displaced Person(s)
IMR	Infant Mortality Rate
INGO	International Non-governmental Organization
MDG	Millenium Development Goals
MMOH	Myanmar Ministry of Health
MMR	Maternal Mortality Ratio
MUAC	Mid-Upper Arm Circumference
NGO	Non-governmental Organization
ORS	Oral Rehydration Salts
Pf	Plasmodium falciparum
SPDC	State Peace and Development Council
TBA	Traditional Birth Attendant
UNDP	United Nations Development Program
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
U5MR	Under 5 Mortality Rate
WHO	World Health Organization

APPENDIX 2: MAP OF EASTERN BURMA MALARIA CASELOADS



This map was compiled by the Health Information System Working Group (HISWG), a coalition of border-based health service providers. It depicts the number of cases treated for malaria per target population in each township. This data highlights the extent of service provision in each area relative to the size of the population. The "official" population figures are from the Myanmar Ministry of Health 2007. HISWG does not provide an opinion on the accuracy of these total population figures but has included them in the absence of more current information. Most of the target populations are in relatively stable rural areas of Eastern Burma.

This graph does not depict disease prevalence or incidence rates, nor does it represent the general morbidity conditions among the entire population of the region. Such indicators cannot be calculated with the data included as the caseloads do not include cases that did not see a health worker for treatment and because the data is not population based.

When interpreting these figures, it is important to note that the caseload treated per population depends on the underlying morbidity rate; certain diseases, such as malaria, are less prevalent in certain regions, and thus, the caseload per target population will be lower. Thus, a low caseload per target population could either be because service coverage was low or because the prevalence of the disease was low. Similarly, a high caseload per population does not necessarily indicate comprehensive service coverage; if the disease is very prevalent, it is possible that not all cases were treated.

APPENDIX 3: SURVEY QUESTIONNAIRES

Date: ☐☐ / ☐☐ / ☐☐ (Day / Month / Year) Surveyor ID: ☐☐ Household Number: ☐☐☐

Area Code: ☐☐ Clinic/BP ID: ☐☐☐☐☐ Cluster ID: ☐☐☐

Village name: _____

If this is different than the village assigned, give explanation:

Start time (use 24 hour time): ☐☐ : ☐☐

READ THE FOLLOWING CONSENT TO THE RESPONDENT BEFORE STARTING THE HOUSEHOLD SURVEY:
We will ask questions about your family's health situation. This information will be used by the _____ Health Department so that they can improve health programs in your area. Some questions might be sensitive and personal. All responses will be kept confidential. Please stop me if you have any questions. Please tell me if you prefer not to answer a particular question or continue with the survey.

Do you want to complete the survey?..... ☐ **0** = No (Refusal – DO NOT CONTINUE INTERVIEW)
1 = Yes (CONTINUE INTERVIEW)

(Household Member List) List the age & sex of **all people** living in this household. Don't forget to include yourself, children, & infants.

1.1 MARK "X" FOR PERSON ANSWERING QUESTIONS	1.2 AGE IF DON'T KNOW MONTH, CODE "99"	1.3 SEX 0=Male 1=Female	1.4 Did this person take a Vitamin A pill (like this) in the past 6 months? 1=Yes 0=No 8=Refused 9=Don't Know	1.5 Has this person had Diarrhea in the last 2 weeks? 1=Yes 0=No 8=Refused 9=Don't Know	1.6 Has this person had ORS in the last 2 weeks? 1=Yes 0=No 8=Refused 9=Don't 'Know	1.7 FOR CHILDREN <5 YEARS AND FEMALES 15-49 RECORD A MUAC 777=Person not home 888=Refused
	1. ( ) Yrs ( ) Mths					☐☐•☐
	2. ( ) Yrs ( ) Mths					☐☐•☐
	3. ( ) Yrs ( ) Mths					☐☐•☐
	4. ( ) Yrs ( ) Mths					☐☐•☐
	5. ( ) Yrs ( ) Mths					☐☐•☐
	6. ( ) Yrs ( ) Mths					☐☐•☐
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	10.( ) Yrs ( ) Mths					☐☐•☐
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	12.( ) Yrs ( ) Mths					☐☐•☐
	13.( ) Yrs ( ) Mths					☐☐•☐
	14.( ) Yrs ( ) Mths					☐☐•☐
	15.( ) Yrs ( ) Mths					☐☐•☐

For each person in this household who died since the start of rainy rice Harvest 2007 until now, please tell me the age, sex and cause of death. Please include very little babies that cried or showed signs of life but later died.

	2.1 AGE AT DEATH	2.2 Did this person die between the start of Rainy rice harvest 2007 and now? 1=Yes 0=No -> If no, cross out this person's death in this table.	2.3 SEX 1=F 0=M	2.4 CAUSE OF DEATH (LIST ONLY ONE)	**CAUSE OF DEATH CODE CHOICES**
1.	( ) Yrs ( ) Mths				01 – Diarrhea 02 – Malaria 03 – ARI 04 – Landmine 05 – Gunshot 06 – Pregnancy-related maternal death (woman dies <42 days after pregnancy) 07 – Neonatal death (newborn dies < 28 days old) 08 – Other IF "08-Other", WRITE DOWN SPECIFIC CAUSE IN THE ROW. 88 – Refused 99 – Don't know
2.	( ) Yrs ( ) Mths				
3.	( ) Yrs ( ) Mths				
4.	( ) Yrs ( ) Mths				
5.	( ) Yrs ( ) Mths				
6.	( ) Yrs ( ) Mths				
7.	( ) Yrs ( ) Mths				
8.	( ) Yrs ( ) Mths				

3.1	Just to be clear, we would like to know if any baby was born since the start of rainy rice Harvest 2007 until now who cried or shown signs of life but later died?	0=No 1=Yes → SURVEYOR: ADD DEATHS TO THE DEATH TABLE IF NOT ALREADY LISTED	☐
3.2	SURVEYOR: REVIEW ALL AGES OF PEOPLE LISTED AS ALIVE IN THE HOUSEHOLD AND ONLY ASK QUESTION 3.3 IF THERE IS A CHILD < 6 MONTHS:	0= No child < 6 mths → GO TO 3.4 1= Child <6 mths → GO TO 3.3	☐
3.3	What did the youngest child living in this household under 6 months eat or drink in the last 24 hours? SURVEYOR WRITE DOWN "1" FOR ALL OF THE ANSWERS GIVEN. WRITE "0" FOR THE ANSWERS THEY DO NOT SAY. BREASTMILK ☐ WATER ☐ RICE ☐ OTHER ☐		
3.4	How many months and years ago was the end of your last pregnancy? IF CURRENT PREGNANCY IS FIRST PREGNANCY, WRITE "00" FOR MONTHS, AND "00" FOR YEARS.	00=Currently first pregnancy 01-11 Months (Record integer) ----------→ 01-20 Years(Record integer) ----------→ 77 = Never Pregnant 88= Refused 99= Don't know	☐☐ ☐☐
3.5	How many days did you take iron supplements during your last/ current pregnancy? (Estimate number of days)	Number of days 888=Refused 999=Don't know	☐☐☐
3.6	Do you currently use any of these to avoid pregnancy? SURVEYOR PLEASE READ ANSWER CHOICES IF 'OTHER', PLEASE WRITE DOWN SPECIFIC METHOD	0=None 1=OCP 2=Depo 3=Condom 4=Other (_____) 8=Refused 9=Don't know	☐
3.7	What kind of toilet facility do you usually use?	0= No facility / bush / field 1=Latrine without a latrine bowl 2=Latrine with a latrine bowl 8=Refused 9=Don't know	☐
3.8	Do you share this toilet facility with other households?	0=No 1=Yes 8=Refused 9=Don't know	☐
3.9	Since the start of rainy rice Harvest 2007 until now, please think about all the people in this household who had fever. For the person who most recently had fever, was he/she tested for malaria?	0=Noone had fever 1=No, person did not get tested 2=Yes, person got tested 8=Refused 9=Don't know	☐
3.10	How many people in this household slept under an ITN *last night*?	Number of people who slept under ITN 88=Refused 99=Don't know	☐☐

3.11	SURVEYOR: IF THIS HOUSEHOLD NEEDS IODINE TESTING ASK RESPONDENT: May we test your salt supply for iodine? RECORD TEST RESULTS	0=No color 1=Blue color 7=No salt 8=Refused to do 9=Don't know / Inconclusive results	☐
3.12	May we test you for malaria? IF YES, PARACHECK THE RESPONDENT ONLY RECORD TEST RESULTS	0=Negative Test 1=Positive Test 8= Refused to do 9= Inconclusive test after the second attempt	☐

4.1	Since the start of rainy rice Harvest 2007 until now , **how many people** from your household were forced to work against their will by soldiers or authorities, including those people who have died? *This includes forced landmine sweeping, portering, carrying arms, building roads, being camp servants, and include if people had to pay fee to not do forced work.*		**# PEOPLE** 88= REFUSED 99= DON'T KNOW	☐☐ IF "**00**", SKIP TO **4.3**
4.2	For each person who was forced to work against their will, please write the **total number of days** in the past year he/she was forced to work.	PERSON # **1**	**# DAYS** 888= REFUSED 999= DON'T KNOW	☐☐☐
		PERSON # **2**	**# DAYS** 888= REFUSED 999= DON'T KNOW	☐☐☐
		PERSON # **3**	**# DAYS** 888= REFUSED 999= DON'T KNOW	☐☐☐
		PERSON # **4**	**# DAYS** 888= REFUSED 999= DON'T KNOW	☐☐☐
		PERSON # **5**	**# DAYS** 888= REFUSED 999= DON'T KNOW	☐☐☐
4.3	Since the start of rainy rice Harvest 2007 until now has your household **been asked** or **obligated** to grow Jatropha (physic nut or castor oil) by authorities?		1= **YES** 0= **NO** 8= REFUSED 9= DON'T KNOW	☐
4.4	Since the start of rainy rice Harvest 2007 until now **how many people** in your household were **shot at** by a soldier or authorities, including those people who have died?		**# PEOPLE** 88= REFUSED 99= DON'T KNOW	☐☐
4.5	Since the start of rainy rice Harvest 2007 until now , **how many people** in your household were **stabbed** by a soldier or authorities, including those people who have died?		**# PEOPLE** 88= REFUSED 99= DON'T KNOW	☐☐
4.6	Since the start of rainy rice Harvest 2007 until now , **how many people** in your household were **beaten** by a soldier or authorities, including those people who have died?		**# PEOPLE** 88= REFUSED 99= DON'T KNOW	☐☐
4.7	Since the start of rainy rice Harvest 2007 until now , **how many people** in your household were **detained** by a soldier or authorities, including those people who have died?		**# PEOPLE** 88= REFUSED 99= DON'T KNOW	☐☐
4.8	Since the start of rainy rice Harvest 2007 until now **how many people** in your household were **tied up** by a soldier or authorities, including those people who have died?		**# PEOPLE** 88= REFUSED 99= DON'T KNOW	☐☐
4.9	Since the start of rainy rice Harvest 2007 until now , **how many times** has your household been **forced to move** because of security? IF YOUR HH NEVER FORCED TO MOVE, WRITE '00'		**# TIMES** 88= REFUSED 99= DON'T KNOW	☐☐ IF "**00**", GO TO **4.11**
4.10	Since the start of rainy rice Harvest 2007 until now , how many **total days** has your household been displaced?		**# TOTAL DAYS** 88= REFUSED 99= DON'T KNOW	☐☐☐
4.11	Since the start of rainy rice Harvest 2007 until now has your rice (or other crop) field burned, destroyed, taken, or mined by soldiers or authorities?		1= **YES** 0= **NO** 8= REFUSED 9= DON'T KNOW	☐
4.12	Since the start of rainy rice Harvest 2007 until now , has your livestock been taken or killed by soldiers or authoritie?		1= **YES** 0= **NO** 8= REFUSED 9= DON'T KNOW	☐
4.13	Since the start of rainy rice Harvest 2007 until now has your food stores been taken or destroyed or mined by soldiers or authorities?		1= **YES** 0= **NO** 8= REFUSED 9= DON'T KNOW	☐
4.14	Since the start of rainy rice Harvest 2007 until now , was food given to soldiers or authorities because of fear (or to prevent soldier violence)?		1= **YES** 0= **NO** 8= REFUSED 9= DON'T KNOW	☐
4.15	Now we would like for you to think about the last 15 years. Among all people who have lived in your household in the last 15 years, how many have experienced a landmine/UXO injury in the last 15 years ?"		**# PEOPLE** 88= REFUSED 99= DON'T KNOW	☐☐

Thank you for answering these questions and helping us better understand the health situation of your area.

End time (use 24 hour time): ☐☐ : ☐☐

APPENDIX 4: WEBSITE LINKS FOR CITATIONS

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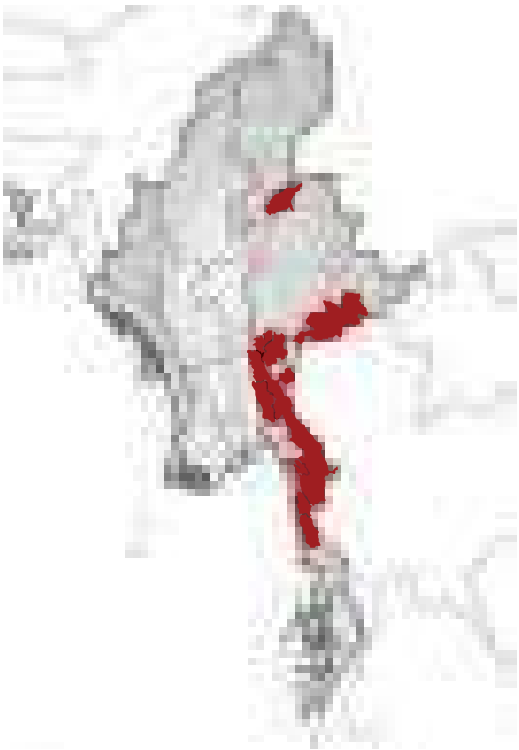

DIAGNOSIS: CRITICAL

HEALTH AND HUMAN RIGHTS IN EASTERN BURMA

This report demonstrates that the health of populations in conflict-affected areas of eastern Burma, particularly women and children, is amongst the worst in the world, a result of official disinvestment in health, protracted conflict and the abuse of civilians.