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Burmese Refugee Health: The Value of Plant-Based Medicine

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Abstract

The nation of Myanmar (formerly Burma) has been undergoing violent ethnic cleansing for over 60 years. Members of minority ethnic groups such as the Karen, Chin, Mon, and Rohingya have been forced to flee their homelands. For many individuals in Myanmar, the primary form of healthcare is traditional medicine, in which plants and other natural resources are utilized for their medicinal compounds. The ability for plants to be used as medicine is one of the many ecosystem services of plants that has greatly benefitted humans. This paper examines the use of traditional medicine in Burmese refugees, as well as the ways in which natural remedies have advanced modern societies, both medically and economically. After reviewing the recent history of Myanmar, I analyze the changes that occur in healthcare as refugees move from their homes to refugee camps to the United States, noting the significant decrease in the use of traditional medicine over time. I discuss the role of the international humanitarian community in maintaining the health of refugee populations in refugee camps in both Bangladesh and Thailand, and the benefits that traditional medicine would bring to refugee health if traditional medicine were integrated into medical systems. With a focus on the positive values of plants for medicinal purposes, this paper advocates for a heightened availability of traditional medicines in modern societies. With the incorporation of plants into healthcare, refugees can more easily transition to societies with unfamiliar medical systems. This paper discusses the benefits of encouraging traditional medicine usage on a global scale, concluding that natural medicines can influence public health through urban ethnobotany and the scientific study of medicinal plant compounds.

Keywords: traditional medicine, healthcare, Myanmar, refugees, urban ethnobotany

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Introduction: Why Plant Medicine?

> "Traditional medicine has a long history. It is the sum total of the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health, as well as in the prevention, diagnosis, improvement or treatment of physical and mental illnesses."[1]

The many ecosystem services of plants have been crucial for human survival in the natural world. Over centuries, people have acquired immense amounts of knowledge of the ecosystems in which they live, and have come to make use of nearly all components of their surrounding environments. In most traditional societies, people rely on the surrounding environment for all of their needs, including food, shelter, and medicine. Plant medicine has proven to be useful not only in these traditional societies, but also in modern societies. This paper will highlight the use of traditional medicine by Burmese refugees, tracing the changes in the primary components of their healthcare experiences over time.

The field of ethnobotany is a multidisciplinary field that combines science, culture, and ecology, among other disciplines. When defining ethnobotany as the study of interrelations between humans and plants, it is especially important to take note of the medical uses humans obtain from plants, which can be categorized as both ethnobotany and ethnomedicine. The World Health Organization estimates that 60,000 plant species are used for medicinal purposes in various cultural practices throughout the world.[2] Traditional Chinese Medicine alone includes 11,146 species of plants;[3] the knowledge of the uses of these plants has accumulated over

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[1] World Health Organization, *General Guidelines for Methodologies on Research and Evaluation of Traditional Medicine* (Geneva, 2000), 1.
[2] World Health Organization Convention on Biological Diversity, "Chapter 11: Traditional Medicine." In *Connecting Global Priorities: Biodiversity and Human Health: A State of Knowledge Review,* (Geneva, 2015).
[3] Pei Sheng-Ji, "Ethnobotanical Approaches of Traditional Medicine Studies: Some Experiences From Asia," *Pharmaceutical Biology* 39 (2001): 74.

centuries as the knowledge is continually passed down to the next generation of traditional healers.

Indigenous knowledge is highly valuable in traditional societies. Sheng-Ji states:

> "There is a long tradition, in rural societies, of using medicinal plants for both preventive and curative health care; local people have developed reliable knowledge and effective methods to identify, harvest, utilize, maintain, and preserve medicinal plants and their habitats for sustainable use."[4]

Medicinal practices have involved the natural world for thousands of years; fossil records indicate that humans have used plants for medicinal purposes for 60,000 years.[5] Societies use parts of leaves, herbs, roots, bark, and mineral substances to cater to their health needs. Using plants, traditional healers—often called shamans—create concoctions from multiple plant and animal parts and secretions to cure diseases, ailments, and illnesses in their communities. Traditional knowledge bonds native communities together and helps them thrive, even in a developing world. Although healthcare has advanced tremendously in modern societies, forms of plant medicine are still commonly used. The World Health Organization estimates that 65% of the world has incorporated plants into healthcare today, whether as the main method of healthcare or as a supplement to Western medicine, such as in the form of herbal supplements.[6] The study of the ways in which humans use plants is important not only to understand traditional cultures, but also to progress modern societies and modern medicine.

Medicinal plants provide the opportunity for financial benefits, as well as health benefits. The World Health Organization estimates that the value of Chinese plant remedies alone is $571

[4] Sheng-Ji, "Ethnobotanical Approaches," 75.
[5] Daniel S. Fabricant, and Norman R. Farnsworth, "The Value of Plants Used in Traditional Medicine for Drug Discovery," *Environmental Health Perspectives* 109, no. 1 (March 2001).
[6] Fabricant and Farnsworth, 2001.

million, and the sale of these plant medicines generates $1.4 billion annually.[7] The WHO also estimates the global trade of all medicinal plants to be over $2.5 billion every year, so the cultivation of medicinal plants could provide countries with a significant profit.[8] Markets for herbal remedies are especially large. Americans spend half a billion dollars per year on herbs in health food stores alone, not including the sale of herbal teas.[9] There is recognized value in traditional methods of medicine, and the demand for natural remedies does not seem to be decreasing.

Drawn from ecosystems and traditional knowledge, about half of all medications are naturally sourced. Scientists have relied on inspiration from indigenous medicinal practices to develop synthetic compounds for use in Western medicine. For example, anesthetics were inspired by the use of arrow poisons, and glaucoma treatments arose from the study of witch ideals in indigenous communities.[10] After rigorous scientific testing, certain plant compounds have been verified to have the same medical benefits as claimed in traditional medicinal practices. Most plant-derived drugs come from forests, which contain over two-thirds of the world's terrestrial species. Quinine, a drug commonly used to treat malaria in Southeast Asia, including in Myanmar, is derived from trees in South America, and has paved the way for the development of other successful malaria treatments.[11] As only 1.9 million of the world's

[7] Charles Anyinam, "Ecology and Ethnomedicine: Exploring Links Between Current Environmental Crisis and Indigenous Medical Practices," *Social Science & Medicine* 40, no. 3 (1995).
[8] World Health Organization Convention on Biological Diversity, "Traditional Medicine,"
[9] Michael J. Balick, Elaine Elisabetsky, and Sarah A. Laird, *Medicinal Resources of the Tropical Forest: Biodiversity and Its Importance to Human Health.* (New York: Columbia University Press: 1996).
[10] Michael J. Balick, and Paul Alan Cox, *Plants, People, and Culture: The Science of Ethnobotany*, (New York: Columbia University Press, 1996).
[11] Bruce Barrett, David Kiefer, and David Rabago, "Assessing the Risks and Benefits of Herbal Medicine: An Overview of Scientific Evidence," *Alternative Therapies in Health and Medicine* 5, no. 4 (July 1999).

estimated 8 to 100 million species have been identified, many medicinal plants that could revolutionize medicine have yet to be discovered.[12]

While scientists sometimes deem traditional medicine as superstitious, an abundance of Western medical knowledge has come from the study of natural remedies. Nature provides opportunities for drug discoveries that would be nearly impossible to synthesize in laboratories. Scientists have relied on inspiration from indigenous medicinal practices to develop synthetic compounds for use in Western medicine, and these discoveries have greatly advanced the modern medical field. Elements discovered in plants, animals, and microorganisms can give rise to medications that can be distributed to a larger market. Over 50% of commercial drugs have a basis in bioactive compounds that were originally discovered in non-human species. The World Health Organization has classified 252 essential chemicals for medicine; 11.1% of these originate from plants and 8.7% originate from animals. Of the 150 prescription drugs in the United States, 25% are sourced from plant chemicals, and 55 out of the 100 most widely prescribed drugs in the United States are based on plant properties.[13] If the qualities of plants and animals had never been studied, many popular medicines would not be in existence today.

Plant discoveries that accelerate Western medicine often come from the examination of indigenous cultures and their medicinal practices. Traditional medicine is a type of scientific study in itself; over generations, natural remedies are modified to become the most effective at treating specific conditions. Much like the way modern medicines are tested through series of clinical trials, traditional medicines have proven to be effective in indigenous communities

[12] G. Miller and Scott Spoolman, *Living in the Environment: Principles, Connections, and Solutions,* 17th ed., (Brooks/Cole: Belmont, 2012), 81-82.
[13] Rômulo Alves, and Ierecê M. L. Rosa, "Biodiversity, Traditional Medicine and Public Health: Where Do They Meet?" *Journal of Ethnobiology and Ethnomedicine* 3, no. 1 (2007).

through centuries of personal trials.[14] Many of the 119 plant-derived drugs in the United States were developed by studying traditional remedies: 74% of these drugs have the same use in pharmaceuticals as they did in native cultures.[15] The ability of native remedies to influence Western medicine proves that indigenous knowledge can be applied to modern societies; traditional medicine has the opportunity to positively influence the entire world. As cultures and their healthcare practices are studied, the discovery of more potentially life-saving plant compounds becomes possible. Ethnobotanists and scientists are able to take the biochemical functions of medicinal plants and translate them into pharmaceuticals that can be distributed to a larger market. However, not many plants have been researched for medical properties. One study determined that only one-half of one percent of the world's flowering plant species have been studied for medicinal qualities.[16] It is likely that many species that have not been researched contain medicinal qualities that could benefit modern medicine. The study of ethnomedical traditions has led to the discovery of many effective medical treatments, and continued study of medicinal plants holds promise to contribute to new treatments in the future.

Traditional medicine is widely used in Asia, including in Myanmar. Sheng-Ji (2001) states: "It is estimated that 70-80% of the rural population in developing Asian nations depends on traditional medicine for primary health care today, even though allopathic medicine is available in many places of the region."[17] In Myanmar (formerly known as Burma), traditional medicine is the primary method of healthcare for many people; the traditional medical system is

[14] Balick and Cox, "Plants, People, and Culture."
[15] Alves and Rosa, "Biodiversity."
[16] Balick and Cox, "Plants, People, and Culture."
[17] Sheng-Ji, "Ethnobotanical Approaches," 75.

both recognized and regulated by the Ministry of Health.[18] Burmese traditional medicine draws from various ancient Asian practices.[19] A significant portion of Burmese traditional medicine is based in the Indian tradition of Ayurveda, where physical health is connected to both the spiritual world and the natural world.[20] Over 290 herbal drugs from Ayurvedic practices have been documented for therapeutic use.[21] Burmese traditional medicine also includes the indigenous practices of various local ethnic groups and religions, and thus includes a wide variety of medicinal plants.[22]

In Asian culture, medicine is thought to not only cure physical conditions, but also to cleanse damaged parts of the soul; it is a significant part of traditional cultures. For many of the over 100 ethnic groups that exist in Myanmar, traditional medicine helps their communities prosper. The Karen ethnic group, located near the border between Burma and Thailand, is one of the Burmese ethnicities that has used traditional medicine for centuries. Studies have shown that refugees are familiar with traditional medicine and rely on it for their healthcare; one study showed that in refugee camps in Thailand, Burmese refugees used 271 natural medicines to treat their health conditions.[23] Despite the importance of traditional medicine in the nation, plant medicine in Myanmar is a subject that has not been adequately researched. The Department of Traditional Medicine in Myanmar has only documented 59 commonly used medicinal plants, although many more are known to be used in traditional practices.[24] The lack of research on

[18] Gerard Bodeker and Cora Neumann, "Revitalization and Development of Karen Traditional Medicine for Sustainable Refugee Health Services at the Thai-Burma Border," *Journal of Immigrant & Refugee Studies* 10, no. 6 (2012): 10.
[19] Suresh Awale et al., "The Healing Art of Traditional Medicines in Myanmar," *Journal of Traditional Medicines,* 23, no. 2 (2006).
[20] Gerard Bodeker, Cora Neumann, Priva Lall, & Zaw Min Oo, "Traditional Medicine Use and Healthworker Training in a Refugee Setting at the Thai-Burma Border," *Journal of Refugee Studies* 18, no. 1 (2005).
[21] Sheng-Ji, "Ethnobotanical Approaches," 74.
[22] Bodeker and Neumann, "Revitalization," 9.
[23] Bodeker et al., "Traditional Medicine Use."
[24] Department of Traditional Medicine, *Medicinal Plants of Myanmar,* (Rangoon, Ministry of Health: 2004).

Burmese medicinal plants limits the scientific community's knowledge of the practice of traditional medicine in Myanmar. When traditional medicinal knowledge is lost, such as in the transition to new forms of medical treatment, the potential to further understand Burmese plant medicine decreases. The implications of the decreased use of traditional medicine, both in refugee camps and after resettlement to countries like the United States, will be discussed in chapters two and three.

This paper aims to document the use of traditional medicine in Burmese refugees—while they lived in Myanmar, in refugee camps in Bangladesh and Thailand, and in the United States, for those fortunate enough to have been relocated. Chapter One discusses the recent history of Myanmar, focusing on the violent actions by the government that forced minority ethnic groups to become refugees. Chapter Two analyzes the international humanitarian community's response to health issues in refugee camps and explores the use of traditional medicine alongside Western treatments. Chapter Three follows refugees after they have been resettled in the United States, noting their past and present experiences with using traditional medicine. This chapter relies on a related study that was conducted during the summer of 2017. In Chapter Four, the possibilities to incorporate traditional medicine into modern societies are discussed, encouraging a pluralistic approach to medicine. Finally, Chapter Five offers suggestions to preserve traditional medicinal knowledge for the future.

Chapter One: Modern Myanmar: Conflict, Crisis, and Ethnic Cleansing

Ethnicity has been a major driver of conflicts in Myanmar. As a geographical buffer between the strong powers of China, India, and Thailand, Myanmar has endured over 2000 years

of cultural mixing due to cross-border migration. The majority of the population is Burman,[25] but the diversity of the land and centuries of exposure to foreign cultures has resulted in one-third of the population being composed of ethnic minorities. Myanmar has long noted the differences between groups of people, and the nation now claims 135 national races. Ethnicity in Myanmar is important to individuals' identities and cultures; it "is not merely a political mode of identification… but an essential part of the way people imagine their place in the world."[26] In general, Burmese people feel strong connections to their specific ethnicities, which enhances the divides between ethnic groups. In recent history, those in power—the ethnic Burmans—have wanted to eliminate the uniqueness of minority ethnic groups and mold the nation into one of a single ethnicity, a single culture. In order to enforce a single identity of Burmese peoples, though, the government has taken to violent measures. Unity of race, language, culture, and values is prioritized by the government, and any opposition by minority groups has been suppressed. Throughout the history of modern Myanmar, and even today, minority ethnicities have been persecuted so that the government's ideal of a homogenous state with "one religion, one language, one ethnicity"[27] could be realized.

Before it is possible to analyze refugees' use of traditional medicine, it is necessary to understand the situations of refugees: where did they come from, and what caused them to flee their nation? Only when we understand the history of discrimination in Myanmar can we comprehend the complex nature of Burmese refugee health. This chapter examines the history of Myanmar as it has influenced the refugee crisis.

[25] The term "Burman" refers to the majority ethnic group, whereas the term "Burmese" refers to any individual from the nation of Burma.
[26] Mikael Gravers, *Exploring Ethnic Diversity in Burma,* (Copenhagen: NIAS Press, 2007): 1.
[27] The slogan and vision of Myanmar. See Sakhong, 413-35.

Formerly a British colony, Burma[28] was created through three wars involving Britain in the 1800s. During the age of colonial Burma, British rulers began to impose on Burmese ethnic groups. As a nation made up of many ethnicities, Burma was home to groups of people that, for the most part, remained independent of each other. The British furthered existing gaps between ethnic groups by assigning ethnic categories to people during each census, not accounting for the significant differences between each ethnic community. In order to comply with the British rules, people had to assign themselves to one ethnic category, even though the given categories were extremely broad. Charney explains the complexity of assigning ethnicities in Burma: "Despite the substantial cultural, linguistic, and religious differences among Karen groups, a Karen identification based on the practices of only one group, that of the Christianized Sgaw Karen, was applied to the Karen in general."[29] The British required all Burmese peoples to assign themselves to one of eight ethnic races, even though over 100 different ethnicities exist in Burmese culture. Regardless of their distinctions, Burmese people had to categorize themselves as Burman, Mon, Shan, Karen, Kayah/Karenni, Kachin, Chin, or Rakhine. Gravers refers to these as the eight 'big races' that were referred to during colonial rule, under which most of the unique ethnicities of Burmese peoples can be categorized.[30] The British, however, gave most political recognition to ethnic Burmans, and disregarded non-Burmans, which were considered ethnic minorities. The harsh distinction between Burmans and minority ethnicities created a mindset that continues to separate Burmese people today.

[28] For the majority of this chapter, the nation will be referred to as "Burma," since the name "Myanmar" has only been used since 1988. See Lowell Dittmer, "Burma vs. Myanmar: What's in a Name?" *Asian Survey* 48, no. 6 (2008): 885-88.
[29] Michael W. Charney, *A History of Modern Burma*, (New York: Cambridge University Press, 2009): 8.
[30] Gravers, *Exploring*, 4.

Once the British gained power over southern Burma, they wanted to extend their power to additional native areas in the north. The attempts to expand rule created tensions: "For much of the nineteenth century there were two competing Burmas, a shrinking independent state in the north and an expanding colonial entity in the south."[31] Native communities wanted to maintain their independence from colonial rule, but at the time, they did not have the power or the means to formulate an independent state. Instead, rifts between ethnic groups escalated in a quest for power.

After over a century of colonial rule, Burma began to stage a plan for independence from Britain. On May 17, 1945, a three-stage independence plan formulated when ethnic leaders came to an agreement with the British. Until 1948, Burma would be governed under emergency administration to ease the transition to independence. During this time, the Burmese would write a new constitution and negotiate with Britain to determine which areas, if any, the British would control after Burmese independence. Once an agreement was reached, Burma would acquire independence with limitations.[32]

The independence plan played out in less time than anticipated, but the way independence was achieved had a tremendous effect on the unrest that would occur as soon as Burma became its own nation-state. As the majority population, ethnic Burmans had the most powerful voice in the formation of a Union. They envisioned a uniform state in which all citizens would identify with the same values and beliefs; in a sense, they wanted to rid Burma of ethnic minorities, having all minorities adopt Burman habits. However, the Burmans realized that in order to gain independence from Britain, they would need to convince the ethnic minorities to join the Union. Therefore, the Burmans attempted to reach compromises with minority leaders

[31] Charney, *A History of Modern Burma*, 5.
[32] Ibid., 62.

by appealing to minority rights—regardless of their intention to honor or ignore those rights after independence.[33]

The Panglong Conference in 1947 was a crucial event in determining the trajectory of Burma's independence. In the attempt to appeal to minorities, the goal of this conference was to determine the level of representation in the Frontier Areas (northern Burma) for the proposed Executive Council and Constituent Assembly.[34] It would determine the political power certain ethnicities would hold. In a critical misstep, though, not all ethnicities took part in the conference: the Shan, Kachin, and Chin minorities participated, while the Kayah and Karen were only allowed to observe. The Mon and Rakhine ethnicities were not present at all. Gravers analyzes the effects of representation at Panglong: "Despite the spirit of mutual trust generated at Panglong, the conference left many problems unsolved: the minor groups of the Frontier Areas such as the Naga, Wa, Palaung, Padaung, as well as the Salween Karen, were not represented. The Mon, the Rakhine and the Karen were outside the Frontier Areas and thus excluded."[35] The exclusion of ethnic minorities at the Panglong conference set the stage for the decades of discrimination that would occur after independence.

During the Panglong Conference, Burman leaders laid out their conditions that they believed would convince ethnic minorities to join in the formation of a Union. The Burmans recognized that ethnic minorities would not easily agree to live under Burman rule, so they attempted to reach compromises with minority leaders by focusing the Panglong Conference on minority rights. The Burmans vowed to grant equal rights to all ethnic groups, a reality that had not been in place under British rule. The Chin, Kachin, and Shan leaders in attendance initially

[33] Nehginpao Kipgen, "Political Change in Burma: Transition from Democracy to Military Dictatorship (1948-62)," *Economic and Political Weekly* 46, no. 20 (2011): 49.
[34] Charney, *A History of Modern Burma*, 65.
[35] Gravers, *Exploring*, 19.

refused to come to an agreement with the Burmans, skeptical of their promises for equality. They were fearful of being dominated by the Burmans and losing their identities, cultures, and freedoms.[36] However, the ethnic minorities who were present at Panglong eventually agreed to the Burmans' terms, with the expectation that if they cooperated with the government, they would be able to enjoy their own freedoms sooner. Minority groups hoped that by voicing their agreement to form an independent Union, they would hold the potential to form their own independent states in the future. The Burmans accepted the minorities' expectations, but placed restrictions on the right to secede from Burma: the Kachin and Karen ethnicities were denied the ability to secede altogether, and the Shan and Karenni ethnicities would have to wait ten years after independence before they would have the possibility to form their own nations.[37] The Panglong agreement was reached, and Burma moved forward with independence. The nation declared independence from Britain on January 4, 1948.[38]

Although the possibility for secession was a strong component in convincing minorities to join the Union, the Burmese government never held up on its promise to allow ethnic minorities to seek freedom. No ethnic groups have been able to secede from the Union in over 60 years.[39] Additionally, even though the Burmans promised to grant equal rights to all minorities, ethnic minorities have faced discrimination since independence. In a nation that pledged to celebrate unity in diversity, the government explicitly attempts to rid the nation of diversity. The Burmans' commitment to minority rights was never realized, and further conflicts arose due to dissatisfaction with the governance of the new nation of Burma.

[36] Kipgen, "Political Change in Burma," 49.
[37] Ibid., 50.
[38] Charney, *A History of Modern Burma,* 71.
[39] Kipgen, "Political Change in Burma," 50.

Violence began almost immediately after Burma declared independence from Britain. Callahan explains that the government operated similarly to the British, ruling without caring about the people: "[Government] leaders were tools of the imperialists who cared nothing for Burmese villagers."[40] The government was not adhering to its promises for equality, and many groups began to retaliate. Just three months after independence, the Communist party launched an armed rebellion against the government, and Karen ethnic groups, who had been disregarded at the Panglong Conference, began fighting for an independent state.[41] In order to fight for federalism and the right to maintain their cultures, minority groups formed militant organizations targeted against the government. The government's national army, although weak at the time, retaliated to suppress insurgent groups. Tensions escalated, and a strong rivalry formed between civilians and the army.[42]

The government took it upon itself to remove ethnic groups that refused to mold into the Burman culture. Government-led massacres of Karen people began in December of 1948—the same year as Burma's independence—when ethnic Burmans threw hand grenades into a Christian church where Karens were worshipping, and 80 people were killed.[43] Over the next few months, hundreds more Karen would be massacred. Ethnic minorities began to plan to fight against the government to preserve their ethnicities. Resisting the government had become not so much of a choice, but a necessity, for ethnic groups that wished to maintain their cultures, values, and identities. Fighting against the government had quickly become a "life or death matter" for minority ethnic groups.[44] The Karen in particular formed a strong resistance group—the Karen

[40] Mary P. Callahan, *Making Enemies: War and State Building in Burma*, (Ithaca: Cornell University Press, 2003): 124.
[41] Ibid., 114.
[42] Ibid., 184.
[43] Callahan, *Making Enemies*, 132.
[44] Sakhong, "Dynamics," 430.

National Union (KNU)—to physically show their opposition to the government, and to represent the Karen people that did not see a future in a united Burma. The KNU, and other resistance groups, waged guerilla warfare against the government for decades.

Resistance groups, though, only fueled the violence of the militarized government. The government targeted minorities, specifically those that had formed resistance organizations. Small villages that were known to have any sort of connection to insurgent groups became the targets of violence almost immediately after Burma gained independence from Britain, and those communities continued to endure violence for decades. Thawnghmung details the violence that occurred in the beginning years of independence:

> "Thousands of villages, especially in the Karen and Karenni States, were burned to the ground, including houses, religious buildings, schools, belongings, and sometimes even domestic animals. In many areas, it became the norm for the villagers to live in a constant fear of the Burmese military coming to their village, terrorising the villagers, stealing their food, forcing villagers to become porters and mine sweepers, raping ethnic women, and torturing and killing anyone suspected of having a connection to the ethnic armed opposition."[45]

The government could not easily distinguish peaceful citizens from armed rebels, so "the easiest solution was to force everyone out of their homes, and in many cases across a flimsy border with a neighboring state such as Thailand or Bangladesh."[46] Entire villages were destroyed as the government attempted to showcase its power and force people into adopting the Burman culture,

[45] Ardeth Maung Thawnghmung, *The "Other" Karen in Myanmar: Ethnic Minorities and the Struggle Without Arms,* (Plymouth: Lexington Books, 2012).
[46] Callahan, *Making Enemies,* 223.

and any survivors from villages were forced to flee from their homes in search of a safer place to live, thus becoming refugees.

After over a decade of chaos following Burma's independence, the head of the Burmese national army, General Ne Win, instigated a military coup in 1962, with the intention of preventing the nation from disintegrating. He was unsatisfied with the way the government was running the nation so far, so he terminated the democratic parliament and banned political parties, beginning the era of military dictatorship in an "overt seizure of power."[47] The coup established military control over the nation and furthered ethnic discrimination. While the goal of the coup was to resolve ethnic unrest and prevent governmental failure, the militarization of the government put immense power in the hands of the Burmans, who advocated for nationalism and the establishment of a unitary state, disregarding the cultural needs of ethnic minorities. When the military gained power, the nation's push towards eliminating differences in ethnicities strengthened. Gravers explains: "Although non-Burman culture and language were officially protected, Burman became the national language and all citizens [were] supposed to share a common identity."[48]

For decades, the military rule in Burma has attempted to force ethnic minorities into either silence or assimilation. Those who choose to neither be silent nor comply with assimilation into Burman culture have turned to violence, initiating a civilian war against the government. As the military dictatorship began to claim more power over the Union of Burma, it prioritized nationalism. The government engaged in forceful attempts to make ethnic minorities mold into the ideal Burman nationality, abandoning the practices and values of their native

[47] Ibid., 202.
[48] Gravers, *Exploring*, 21.

cultures. A line of powerful dictators began imposing the Burman culture and religion onto minorities, with the goal of achieving a completely unified, homogenous state.[49]

The defining characteristics of the ideal Burman culture included the practice of Buddhism, which meant that any ethnic groups that practiced other religions would not be accepted. Christian minorities—the Chin, Karen, and Karenni ethnicities—as well as Muslim minorities—the Rohingya—were marginalized due to their religious beliefs. In 1960, Buddhism became the official religion of Burma, which further marginalized Christian and Muslim minorities.[50] The Rohingya arguably face the most discrimination of all ethnic minorities, due to their Islamic faith. To this day, the Burmese government refuses to officially recognize the Rohingya as an ethnic group. Long-term discrimination against minorities, along with the centralized nation's push for Burma to become a unified state have resulted in ongoing armed conflicts between ethnic minorities and the government. Hundreds of thousands of refugees have left the country in fear of their lives.

In a funded study that I conducted in the summer of 2017, I interviewed Burmese refugees about some of their experiences with fleeing Burma. One refugee explained the fear associated with belonging to the Karen ethnicity in Burma:

> *"We were afraid of the Burmese government. We did not have the freedom to walk, there was not enough food, and when the Burmese army saw us, they would capture us and make us follow them. So we were afraid."*

Multiple refugees said, *"I was scared for my life."* As Karen peoples, they were not safe anywhere in Burma, so they became refugees.

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[49] Lian H. Sakhong, "The Dynamics of Sixty Years of Ethnic Armed Conflict in Burma," *Swedish Missiological Themes* 4, no. 102 (2014): 430.
[50] Kipgen, "Political Change in Burma," 41.

To this day, safety and the preservation of ethnic culture are not guaranteed for ethnic minorities. In 1988, nearly 40 years after widespread violence troubled the nation, the military once again reaffirmed its political power in the wake of international pressures to form a democracy. The ruling military formed the State Law and Order Restoration Council (SLORC) to quiet social protests. The SLORC renamed the nation "Myanmar" and defined 135 national races of Myanmar to publicly voice acceptance of ethnic minorities as part of the national culture. However, SLORC used the classification of '135 national races' as the basis for nationalism and "Myanmarization," which identified the push towards a single culture.[51] The name "Myanmar" signifies a single ethnic group—the Burman majority—in a continued attempt to force citizens to fall under one, and only one, ethnic category.[52] By referring to the state as Myanmar, the government refuses to accept the differences of minority groups.

In addition to changing the official name of the nation as part of its state-rebuilding campaign, SLORC expanded the armed forces of Myanmar: between the years of 1988 and 1996, the size of the military grew from 186,000 to over 370,000 soldiers.[53] This army, although supposedly carrying the mission of rebuilding the nation, continued to persecute ethnic minorities. Ethnic minorities have continued to fight for their people and against the government that does not wish to accept diversity in any form. In each year since independence, an estimated 10,000 civilians have been killed, and many more have been forced to become refugees.[54] No ethnic minority group has been safe: "… *all* ethnic groups have suffered… *all* have been excluded from a peaceful existence and mainstream international development."[55]

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[51] Gravers, *Exploring,* 4.
[52] Sakhong, "Dynamics," 430.
[53] Callahan, *Making Enemies,* 211.
[54] Catherine Brown, "Burma: The Political Economy of Violence," *Disasters* 23, no. 3 (1999): 236.
[55] Gravers, *Exploring Ethnic Diversity,* 28.

Chapter Two: Addressing Healthcare in Refugee Camps: The Case of Mae La, Thailand, and Cox's Bazar, Bangladesh

> The United Nations High Commission for Refugees defines a refugee:
>
> "A refugee is someone who has been forced to flee his or her country because of persecution, war, or violence. A refugee has a well-rounded fear of persecution for reasons of race, religion, nationality, political opinion, or membership in a particular social group. Most likely, they cannot return home or are afraid to do so. War and ethnic, tribal and religious violence are leading causes of refugees fleeing their countries."[56]

While some people escaping conflict become internally displaced inside their home countries, many people leave their countries altogether, thus becoming refugees. Worldwide, most refugees flee their countries due to persecution, war, disaster, or violence. After enduring targeted violence and conflicts, refugees most often flee to a neighboring country, feeling unsafe in their home nations. For refugees, a life of exile is considered to be better than a life of fear and potential death. However, it is challenging for refugees to find a safe place to live, where they can be free from violence and persecution. In finding a safe place to live, refugees often encounter numerous hardships, including threats to their health.

Many refugees end up in refugee camps in bordering countries, where they can remain for decades. Less than one percent of all refugees are ever resettled to a developed country; the rest remain in makeshift camps or are internally displaced within their country of origin. In

[56] UNHCR, "What is a Refugee?" Last modified 2017, https://www.unrefugees.org/refugee-facts/what-is-a-refugee/

Myanmar, two of the most persecuted groups have been the Karen and the Rohingya; I focus on the healthcare available to these ethnicities in highly-populated refugee camps.

Even before they arrive in refugee camps, refugees often encounter numerous hardships, including threats to their health. Refugees fleeing Myanmar suffer from numerous health conditions, including drug-resistant malaria, tuberculosis, malnutrition, dengue fever, Japanese encephalitis, hepatitis, leprosy, and mental health issues from trauma.[57] The Karen had to trek through the jungle for weeks or months before they reached the Thailand border, often facing severe health complications due to the strenuous journey. In a previous study, I interviewed a woman who was nine months pregnant when the Burman military burned down her village. She was able to escape without harm, but she was forced to have her baby alone in the jungle, without any medical assistance. Her son, vulnerable as a newborn, contracted tuberculosis before they arrived in Thailand weeks later, and did not receive adequate treatment for his tuberculosis until he arrived in the United States, which was over a decade after he had been born in the jungle.[58] Examples like these from my study only touch the surface of the health issues that can arise as a result of a person seeking refuge from persecution; the difficulties refugees face during the search for a safer life are immense.

The living conditions in refugee camps are often terrible. In refugee camps in Thailand, "hundreds of thousands of people have lost their homes and many are gathered in makeshift camps. They are in urgent need of drinking water, food, and other basic necessities."[59] Camps are overcrowded, people do not live with adequate shelter, and sanitation is poor. With problems

[57] Bodeker and Neumann, "Revitalization," 14.
[58] Wodniak, taken from an interview with a Karen refugee in the summer of 2017.
[59] MSF, "MSF Calls for Immediate Escalation of Relief Operations in Myanmar," *Medecins Sans Frontieres,* May 16, 2008, https://www.msfmyanmar.org/en/article/msf-calls-immediate-escalation-relief-operations-myanmar

including poor sanitation, unclean drinking water, and living in close quarters, refugee camps can easily become places for diseases to spread rapidly. Since refugees often endured horrible conditions on their journeys to refugee camps, many bring with them diseases they contracted on the way, thus putting others in the camp at risk of contracting the disease. Communicable diseases can affect a camp's entire population if not addressed immediately; without proper health care, thousands of refugees can be at risk. Local, national, and international humanitarian organizations continue to be called upon to provide care in refugee camps, in order to maintain a general standard of health among refugees. With the growing populations in refugee camps, though, the need for medical assistance and rapid response to disease outbreaks increases, and it can be difficult to meet the needs of refugee populations.

The UN High Commission for Refugees assists refugees with the resettlement process once refugees are in refugee camps, but unfortunately, only a small number of refugees are resettled after making their way to border camps. As of June 2014, 96,206 refugees had been resettled to new countries; 75% of these were resettled in the United States. This may seem like a large number, but it is only a small percentage of the number of refuges that have been in and out of refugee camps throughout the years. Additionally, 33.5% of people in camps are not registered for resettlement, and therefore will never be considered; these refugees could potentially live their entire lives without a permanent home. Currently, any refugee in Thailand who did not register for resettlement before 2008 is ineligible for resettlement to the United States.[60] With a decline in resettlement and low interest in repatriation to Myanmar, it is likely that many refugees will remain in Thailand refugee camps for a significant amount of time, and it is essential that their healthcare needs continue to be addressed.

[60] Burma Link, "Displaced in Thailand: Refugee Camps," *Burma Link,* April 27, 2015, https://www.burmalink.org/background/thailand-burma-border/displaced-in-thailand/refugee-camps/

Mae La, Thailand. The Karen people are mostly located in southeastern Myanmar, and many Karen refugees have fled across the border of Thailand in search of safety. Nine refugee camps exist on the Thai-Burma border, hosting around 100,000 refugees in total. Up to 80,000 of these are of the Karen ethnicity. The number of refugees on the Thai-Burma border is decreasing as Myanmar scales up efforts for repatriation, but many Karen do not feel safe to reenter Myanmar and instead choose to remain in refugee camps. As of 2017, there were 98,000 refugees in Thailand, compared to 140,000 in 2011.[61] While the number of Burmese refugees in Thailand has decreased, there are still significant populations in refugee camps. With such large numbers of refugees, it is important for the international community to continue to provide aid on the Thai-Burma border.

The largest of the refugee camps on the Thai-Burma border is the Mae La refugee camp, which hosts approximately 40,000 refugees, 79.1% of whom are of the Karen ethnicity.[62] A majority of refugees in Mae La are women and children, who often require substantial attention to their health.[63] The first refugees arrived in the Mae La refugee camp in 1984.[64] For over thirty years, refugees have entered Mae La with the hope of creating a better life. Mae La did not receive much international attention, though, until a natural disaster struck Myanmar. In 2008, Cyclone Nargis hit southeastern Myanmar and displaced thousands of people. As a result, there was an influx of refugees entering Mae La and the other camps on the Thai-Burma border. The cyclone drew international attention, and more humanitarian agencies began to respond to the

[61] Saw Yan Naing, "Left Behind: Karen Refugees at Mae La Camp," *The Irrawady*, April 28, 2017, https://reliefweb.int/report/thailand/left-behind-karen-refugees-mae-la-camp
[62] Burma Link, "Displaced."
[63] BBC News, "Losing Hope in Mae La," *BBC News*, January 3, 2017, http://www.bbc.com/news/magazine-38423451
[64] Burma Link, "Displaced."

crisis in Mae La, although refugees had already been living in the camp for decades. Medecins Sans Frontieres (MSF) was one of the initial responders to Cyclone Nargis in both Myanmar and Thailand. Within 48 hours of the disaster, MSF helped approximately 550,000 people with "medical care, shelter, food distribution and water, as well as sanitation activities."[65] Almost immediately after people were displaced by the disaster, MSF was present in over 20 locations in Myanmar and Thailand to provide medical aid. After two weeks, MSF had flown in 140 tons of relief materials and 275 tons of food to support the struggling populations.[66] MSF, however, generally focuses on immediate crises and does not provide long-lasting medical support, so the organization has not been a major healthcare actor in Mae La. While MSF's response was temporary rather than permanent, it drew attention to the crisis on the Thai-Burma border.

UNHCR, Malteser International and the International Rescue Committee (IRC) have been some of the primary humanitarian agencies to support ongoing health and well-being in Mae La and other refugee camps in Thailand. UNHCR focuses on care for women, regarding both general health and violence. Currently, over 44,000 women who are refugees in Thailand are in need of protection. UNHCR provides sanitary kits to refugees, which is an essential part of women's healthcare that is often overlooked in humanitarian response. The agency also implemented the Stop Violence Against Women program to address crime and domestic violence. The program helps to empower women and give them the skills they need to defend themselves and protect themselves from violence.[67]

The IRC also focuses on providing care to women. Since 1992, the IRC has provided food, water, sanitation, and protection for Burmese women and children in all nine refugee

[65] MSF, "Immediate Escalation."
[66] MSF, "Immediate Escalation."
[67] UNHCR, "Who We Help: In Thailand," 2015, https://www.unhcr.or.th/en/whowehelp

camps on the Thai-Burma border.[68] The organization's main focus is on pregnant women, babies and children; the IRC discusses the serious health issues that can occur with these vulnerable populations: "For pregnant women, physical and mental injuries lead to miscarriages, premature births, and underweight newborns."[69] Due to their previous experiences and traumas, pregnant refugees are more likely to encounter issues with their pregnancies and deliveries in refugee camps. Because of the dangers of childbearing, many humanitarian agencies stress the importance of providing clean delivery kits and immediate care for mothers and newborns. The IRC also cares for female victims of abuse in Mae La: the organization provides support for refugees who have encountered violence in refugee camps, including young girls who are subjected to violence in forced early marriages. The IRC stresses gender equality and women's empowerment as crucial to reducing violence and abuse in refugee camps; because of the nature of working towards gender equality, the IRC is destined to maintain a long-term presence in Mae La, which is needed for refugees who will end up spending decades in the refugee camp. While pregnant women and children are the primary focus of the IRC's action in Mae La, the IRC also treats chronic malnutrition and other non-communicable diseases, as well as provides health training for refugees to who wish to become community healthcare providers.[70] A focus on training community healthcare providers is not common in humanitarian organizations, but it can be significant in helping refugee communities build resilience, and can also improve the quality and quantity of care available in refugee camps.

Malteser International has been working in Thailand refugee camps since 1993; their focus is on urgent care and overall population health. The agency runs healthcare clinics to

[68] IRC, "Refugees in Limbo: Thailand," 2018, https://www.rescue.org/country/thailand#how-does-the-irc-help-in-thailand
[69] IRC, "International Rescue Committee Thailand: Strategy Action Plan," June 2016.
[70] IRC, "Refugees in Limbo."

provide emergency care and preventative health services in the refugee camps, with the partnership of community groups such as the Karen Refugee Committee, The Border Consortium, Camp Committees, and the Karen Women Organization. By working with local organizations, Malteser International is able to have a stronger connection to the community than lone-standing INGOs. In Mae La and other Thailand camps, Malteser International works to reduce mortality and morbidity, control communicable diseases, limit the risks of epidemics and disease outbreaks, and increase the availability of promotional health activities in refugee camps.[71]

Unfortunately, humanitarian aid in Mae La and other refugee camps in Thailand has been decreasing in recent years. Ever since Myanmar began reforming its government, it has been pushing for refugees to return to the country. Naing states, "Humanitarian assistance including food and health is dwindling at the camp, as international governments and donors cut their funding to reflect gradual movement in Burma's peace process."[72] As the government of Myanmar moves towards peace, outside nations follow suit and encourage refugees to repatriate. However, many refugees living in Mae La and other border camps have no desire to go back to Myanmar. They have nothing left in their native country: their villages were destroyed; their families were killed. Many have lived in refugee camps for 20 or more years, and they do not wish to go back to a country where they do not feel welcome. Therefore, regardless of the government's efforts to bring refugees back into Myanmar, and regardless of the dwindling humanitarian aid, refugee camps in Thailand are still highly populated.

[71] Malteser International, "Medical Relief for Refugees: Thailand," 2015, https://www.malteser-international.org/en/our-work/asia/thailand/medical-relief-for-refugees.html
[72] Naing, "Left Behind."

Cox's Bazar, Bangladesh. The Rohingyas, who have been denied existence as an ethnic group since the formation of the Union of Burma, have seen a recent spike in ethnic persecution. Increased violence against Rohingya populations began in October 2016 and continues to this day. Cox's Bazar, a district in Bangladesh, is the most highly-populated area of Rohingya refugees. Since August 2017, approximately 688,000 refugees have formed temporary settlements in Cox's Bazar, and more continue to cross the border into Bangladesh. Fifty-eight percent of these refugees are children.[73]

The humanitarian response in Cox's Bazar has been much more prevalent in recent years, due to the immediate need for assistance. Violence against the Rohingyas began on October 9, 2016, with a series of coordinated attacks on police stations in Rakhine State. At this time, access to violent areas was denied humanitarian assistance and media coverage, so it was extremely difficult to reach affected populations. In November 2016, though, a second wave of violence resulted in large-scale displacement of Rohingyas. Over 70,000 people fled to the Cox's Bazar district in Bangladesh, and another 20,000 people became internally displaced in Myanmar.[74] This sudden refugee crisis immediately sparked international attention. Humanitarian assistance has been available in Cox's Bazar since the beginnings of this new wave of violence against Rohingyas, and some humanitarian agencies have been providing aid to Rohingya populations since before the refugee crisis: the International Committee of the Red Cross and the Bangladesh Red Crescent Society have been present in Cox's Bazar since 2014.[75] Both are working to

[73] World Health Organization, "Over 350,000 Children to get Additional Dose of Diphtheria Vaccine in Cox's Bazar," *WHO Regional Office for South-East Asia,* January 28, 2018, http://www.searo.who.int/mediacentre/releases/2018/1678/en/2018.
[74] ICRC, "Myanmar: ICRC Scales Up Aid for People Fleeing Violence," September 8, 2017, https://www.icrc.org/en/document/myanmar-icrc-scales-aid-people-fleeing-violence
[75] ICRC, "The International Red Cross and Red Crescent Movement's Response in Rakhine State, Myanmar," May 24, 2017, https://www.icrc.org/en/document/international-red-cross-and-red-crescent-movements-response-rakhine-state-myanmar

provide healthcare assistance to affected refugees, who adhere to a poor standard of living: over half of the Rohingyas who have fled Myanmar live in "makeshift sites without proper shelter, clean drinking water and sanitation."[76] It is difficult to maintain high standards of health in refugee camps; even with international assistance, healthcare professionals struggle to adequately address all of the needs of large refugee populations. However, humanitarian organizations have been successful in addressing the most pressing issues that have arisen in Cox's Bazar.

The World Health Organization (WHO) maintains a strong presence in Bangladesh, focusing on trauma, childbirth, anxiety, and communicable diseases. In the beginning of 2017, soon after the upscale in violence against Rohingya populations, the WHO released $175,000 in funding from the Southeast Asia Regional Health Emergency Fund to mobilize important medicines and medical supplies to existing health facilities in Cox's Bazar. This initiative also supported 20 mobile medical teams for two months at the beginning of the refugee crisis, to attend to the needs of hundreds of thousands of refugees.[77] Communicable diseases have been a large issue in Cox's Bazar, due to the volume of refugees entering Bangladesh within a short period of time. In 2017, WHO implemented the second-largest oral cholera vaccination campaign, giving 900,000 doses of oral cholera vaccine to over 650,000 people. The campaign included a second dose of the vaccine for 250,000 children between the ages of 1 and 5, who are highly at risk of contracting the diarrheal disease. Working with the Bangladesh Ministry of Health, the WHO has campaigned to provide mass MMR (measles-mumps-rubella) and polio

[76] Saif Khalid, "Cox's Bazar: Chaos All Around at Rohingya Camps," September 18, 2017, http://www.aljazeera.com/news/2017/09/chaos-rohingya-camps-bangladesh-170918034033137.html
[77] World Health Organization, "WHO Mounts High-Impact Health Response in Cox's Bazar, Bangladesh," September 21, 2017, http://www.searo.who.int/mediacentre/sear-in-the-field/high-impact-health-response-cox-bazar/en/

immunizations to over 150,000 children between the ages of 6 and 15.[78] Vaccination campaigns of this nature save lives; without early childhood vaccinations, certain contagious diseases can be deadly as they spread rapidly through vulnerable populations.

WHO has also worked with UNICEF and the Ministry of Health and Family Welfare to address diphtheria outbreaks in Cox's Bazar. At the beginning of 2018, these groups implemented an additional dose of diphtheria vaccine in response to an outbreak that caused 4800 cases of diphtheria and 35 deaths. Health officials were most concerned with immunizing children at risk of contracting the disease. Responding quickly, 81 teams of mobile medical staff conducted 1000 vaccination sessions for children between 6 weeks old and 7 years old, the most vulnerable age group for contracting diphtheria. The vaccinations for this age group immunized them against diphtheria, tetanus, whooping cough, haemophilusinfluenzae B, and Hepatitis B. Additionally, children between the ages of 7 and 15 were given tetanus and diphtheria vaccines to boost immunity. WHO officials explain the process and importance of the diphtheria vaccination campaign: "Vaccinating vulnerable populations against diphtheria is one key component of the outbreak response, which also focuses on early detection of suspected cases, providing appropriate treatment, and tracing patients' contacts and giving them preventative medication and vaccine."[79] When implementing vaccination campaigns in areas where Western medicine is not well-known, issues can arise if the population does not understand the reasons for, and the benefits of, vaccination. Effective communication and understanding of local culture is important; WHO vaccinators in Cox's Bazar are trained to communicate the benefits of

[78] World Health Organization, "WHO, Partners Gear for World's Second Largest Oral Cholera Vaccination Campaign in Cox's Bazar," October 9, 2017, http://www.searo.who.int/mediacentre/sear-in-the-field/who-partners-gear-for-world-second-largest-ocv-campaign/en/
[79] World Health Organization, "Over 350,000 Children to get Additional Dose of Diphtheria Vaccine in Cox's Bazar," January 28, 2018, http://www.searo.who.int/mediacentre/releases/2018/1678/en/

vaccinations to refugees if any problems arise. However, it is unknown if refugee populations have been receptive to the vaccination campaigns.

The ICRC and the Bangladesh Red Crescent Society also maintain a significant presence in Cox's Bazar. At the start of the Rohingya crisis, ICRC supplied food and water to over 8000 families on the Myanmar-Bangladesh border, as well as offered for refugees to make phone calls to contact their families and/or to help locate missing family members.[80] The ICRC and Bangladesh Red Crescent Society have worked together to identify and treat some of the most common diseases in Cox's Bazar: respiratory tract infections and diarrhea. They also prioritize the health of pregnant women, providing clean delivery kits as well as care for newborns in critical conditions. Although medical teams are often short-staffed, they are extremely productive: a team of four doctors, four paramedics, and available volunteers are able to see 400 patients per day.[81] Humanitarian response in refugee camps, especially when responding to disease outbreaks, needs to be timely and efficient.

Lack of Traditional Medicine Use in Mae La and Cox's Bazar. Humanitarian agencies have prevented significant health issues from becoming disastrous in both Mae La and Cox's Bazar, but there are still health issues that are not given priority treatment but may can greatly affect refugees' lives. With such large populations in refugee camps, combined with the limited number of healthcare professionals that are able to provide aid, it is impossible to address every refugee's health needs. Minor conditions are often overlooked, which can eventually lead to the deterioration of overall refugee health.

[80] ICRC, "Rakhine State."
[81] Rufas R. Sircar, "Cox's Bazar: Here's What It Takes to Treat 30,000 People in 3 Months," December 12, 2017, https://www.icrc.org/en/document/coxs-bazar-30-000-patients-3-months

There is a common theme among the major humanitarian actors providing healthcare in Mae La and Cox's Bazar: none of them encourage any sort of traditional medicine usage. In Myanmar, traditional medicine is the primary form of healthcare for many people, especially for those belonging to minority ethnic groups. Upon arriving in refugee camps, some refugees may have never been exposed to Western medicine, and all of a sudden it is the primary form of healthcare. The reliance on Western medicine in refugee camps can be frightening for refugees that are unfamiliar with the treatments, and it can also leave gaps in the amount and quality of care that humanitarian agencies are able to provide. Traditional medicine, with its proven benefits, holds the potential to complement the care that is available to populations living in refugee camps.

Humanitarian medical assistance is often ill-equipped to meet the needs of entire refugee populations. The numbers of Burmese refugees, especially in Mae La and Cox's Bazar, are immense; humanitarians are not able to address all refugees' medical needs. While there has been little documentation of traditional medicine use in refugee camps, some Burmese refugees do continue to use traditional medicine after leaving their villages. Since traditional medicine is the form of healthcare that is familiar to Burmese refugees, many turn to traditional health practitioners (THPs) before attempting to be seen at a Western medical clinic. Bodeker and Neumann state:

> "Refugees, as well as migrants and IDPs based in remote areas, tend to visit their closest or most familiar THP at first signs of illness and, depending on diagnoses, will continue on to a specialist. If health is not restored, patients may visit the

nearest Western, or humanitarian, clinic, and eventually a regional hospital if possible for more severe cases."[82]

Even though humanitarian agencies do not explicitly recognize traditional medicine, some refugees still seek out their familiar forms of treatments, which can be a comfortable and familiar way to maintain decent health as a refugee.

Traditional methods of medicine can complement the care provided by humanitarian organizations in refugee camps. Traditional medicines have the ability to help manage fever, wounds, and respiratory diseases, among other conditions, in refugee camps. Bodeker and Neumann's study documented the conditions that traditional healers were able to treat in Thailand refugee camps, in comparison to the conditions that are most often treated by humanitarian agencies. Table 1 shows some of the conditions that traditional medicines can treat in refugee camps, including those that are often left unaddressed by humanitarian communities.

Table 1: Conditions Treated with Traditional Medicine in Refugee Camps

Medical Condition	Can be Treated by Traditional Practitioners	Commonly Untreated in Humanitarian Clinics
Anemia	✓	
Arthritis	✓	✓
Cholera	✓	
Common Cold	✓	✓
Diabetes	✓	✓
Diphtheria	✓	
Dysentery	✓	
Eczema	✓	✓
Headaches	✓	✓

[82] Bodeker and Neumann, "Revitalization," 20.

Hepatitis	✓	
Jaundice	✓	
Malaria	✓	
Measles	✓	
Tuberculosis	✓	

Source: Gerard Bodeker and Cora Neumann, "Revitalization and Development of Karen Traditional Medicine for Sustainable Refugee Health Services at the Thai-Burma Border," *Journal of Immigrant & Refugee Studies* 10, no. 1.

Some of the priority conditions that Western medicine treats in refugee camps are also treated by traditional health practitioners, including anemia, diphtheria, dysentery, hepatitis, HIV, jaundice, leprosy, malaria, measles, mental health issues, and tuberculosis.[83] The treatment of priority conditions by traditional methods is useful in areas where access to humanitarian clinics is limited, or the available resources are insufficient to serve the needs of the entire refugee population. Traditional medicines also treat conditions that are often overlooked or left untreated by INGO clinics. THPs on the Thai-Burma border have treated arthritis, asthma, boils, colds and coughs, cuts and wounds, diabetes, eczema, kidney disorders, headaches, hypertension, high blood pressure, STDs, and stroke.[84] With the availability of traditional medicine in refugee camps, refugees are able to care for more conditions than if they were to rely on Western medicine alone. Traditional health practitioners are not looking to replace Western medical clinics, but instead to supplement the care that is available: "THPs are seeking to fill in gaps in humanitarian care (i.e., areas where humanitarian clinics are ill-equipped, understaffed, or not versed or trained appropriately."[85]

[83] Ibid., 16.
[84] Ibid.
[85] Ibid.

Currently, there are programs that intend to increase the availability of traditional medicine on the Thai-Burma border. The Global Initiative for Traditional Systems (GIFTS) of Health, a UK-based organization, is present in refugee camps in Thailand. Its aim is to build "partnerships at a global level between traditional (i.e., indigenous) health practitioners, scientists, educators, and decision makers in order to improve health services, especially in rural areas of the developing world."[86] GIFTS recognizes that by incorporating traditional knowledge into healthcare in refugee camps, the physical and mental health of refugees can improve. Evidence suggests that in some areas, traditional medicinal clinics have been successfully helping Burmese refugee populations in Thailand. In 2006, two herbal clinics in refugee camps served over 67,000 medical cases of women's health, malnutrition, skin diseases, and culturally-specific health conditions.[87] By continuing to use traditional medicine in refugee camps, traditional health practitioners can create networks of individuals educated in Burmese plant medicines, which can help to build self-sufficient communities of refugees, lessening the stress on medical INGOs. Humanitarian organizations with a long-term presence in refugee camps should adopt programs to work with traditional practitioners, giving them the space to practice in refugee camps. By working together, both Western and traditional clinics can refer refugees to whichever clinic is better equipped to handle their specific health issues. Traditional medicine should not replace Western care in refugee camps, but rather supplement the amount of care that is available for refugees to use. With the availability of both Western medicine and traditional medicinal practices, the overall health of refugees in Mae La and Cox's Bazar can improve.

Oftentimes, Western medicine is seen as the only option for healthcare, especially with international humanitarian organizations; healthcare in refugee camps is not pluralistic.

[86] Ibid., 12.
[87] Ibid., 16.

However, many traditional medicinal methods have been proven to be effective, and communities have been using these methods to care for themselves for decades. It is beneficial to encourage the use of traditional medicine alongside Western treatments to optimize refugee health. Humanitarian agencies can only do so much in refugee camps; it is not possible to address all the needs of all the refugees in overcrowded areas. Western medicine may be the best way to control communicable diseases, provide for women's health, and treat other critical conditions, but refugees may also be able to supplement their health by using familiar traditional methods or turning to traditional health practitioners to care for certain conditions. Humanitarian agencies that are providing medical aid in Burmese refugee camps should be aware that refugees are unfamiliar with Western medicine, that many are comfortable using traditional methods, and that overall health can improve with a pluralized take on healthcare. If both Western and traditional methods are utilized and respected in refugee camps, Burmese refugee health can greatly improve.

Chapter Three. The Journey of Resettlement: What Happens to Traditional Medicine?

Upon arrival in the United States, refugees are again exposed to Western medicine, which is a significant change from the traditional medical practices they had been comfortable with in Myanmar. Especially if resettled refugees had not utilized medical clinics during their time in refugee camps, the sudden exposure to Western medicine in America can come as quite a shock. Ong's study (1995) on Khmer refugee medicine showed that some refugees were not comfortable with all aspects of American medicine. Some would not undergo surgery for any circumstance, because the invasive procedure would infringe on their belief that the physical

body is united with both the social self and the soul.[88] Western practices conflict with the traditional beliefs of some societies, which can have an effect on the amount of treatment a patient is willing to undergo and cause confusion in initial exposure to unfamiliar medical practices. A participant in my previous study mentioned that the first time he encountered a Western medical clinic and had a physical examination, he was confused and scared:

> *"When we first came, everything was different… We run into things that we had never seen before. Let's talk of the physical exam… it's kind of different stuff than we've ever done before. It's hard, we were confused, we didn't understand, you know, so… we were scared. Yeah, pretty scared. Never done anything like that before."*[89]

This refugee, along with others entering the United States, endured the shock of entering a society where Western medicine is dominant. With an increasing number of refugees in the United States, healthcare providers are challenged to adapt in order to accommodate the cultural differences of their patients, particularly to some patients' unfamiliarity with Western practices.

Refugee health is an important factor in the acculturation to a new society. Just as refugees often endure health issues as they move into refugee camps, persisting health issues can prove to be challenging even as they are resettled to a developed country. Burmese refugees have undergone tremendous trauma, and the experiences they had as their villages were burnt down and they were forced to leave their country can severely affect them, even decades into the future. During resettlement, many refugees struggle with both physical and mental health; poor

[88] A. Ong, "Making the Biopolitical Subject: Campodian Immigrants, Refugee Medicine and Cultural Citizenship in California," *Social Science & Medicine* 40, no. 9 (1995).
[89] Wodniak, Quote from an interview in the summer of 2017.

health can complicate the transition to a new culture and society.[90] Combining the stressors of acculturation with poor health and the adaptation to an unfamiliar health system, refugee health is a difficult topic to address.

Although Burmese refugees relied primarily on traditional medicine in Myanmar, their practices are challenged as they enter a society that primarily uses Western medicine. It becomes difficult to maintain traditional practices when alternative medicine is highly stigmatized and thought to be ineffective in Western societies. In the research I conducted in 2017, I studied the use of traditional medicine in Burmese refugees that had been resettled to the United States. A main goal of my study was to determine whether refugees retained their use of plant medicine in the United States, and to understand their views on traditional medicine.

The decline in traditional medicine usage once refugees enter the United States poses a significant concern. In Myanmar, a majority of refugees had used traditional methods of medicine. In my study, I found that 30 out of 39 refugees interviewed had used traditional medicine in Myanmar. It was an important way of life for them; traditional medicinal knowledge was passed down from generation to generation. None of these refugees expressed negative views regarding traditional medicine—they believed it was effective in treating their medical conditions. In my unpublished paper, I quote some of the refugees on the types of traditional medicine they used in Myanmar:

> *"If you have a stomachache, you will use a bark of a tree, and then you grind it, and then you drink it."*

[90] Fern R. Hauck et al., "Factors Influencing the Acculturation of Burmese, Bhutanese, and Iraqi Refugees into American Society: Cross-Cultural Comparisons," *Journal of Immigrant & Refugee Studies* 12, no. 3 (2014).

"I remember the papaya leaves are good for your stomach when you have a stomachache, and you can rub the leaf, a younger one, you do until the sauce come out, and you can put a little salt and you can take it."

"They put the papaya and put the ant inside and it burning. After that it just open and put an egg and just eat it raw."

"When I stay in my country, my baby sick, and we don't have any medicine. We go to take the betel leaf, and the fever just came out."

"I used natural medicine. Just the leaves. We dry and then get the water out and boil. The plants were in our house, we would do natural medicine, get the leaf and the root and mix it. It's good for our health."[91]

"I used plants for natural medicine, from the leaves and the root, we pound and mix them. We would use it for fever, if we have a stomachache, and if the bone is broken…"

In the United States, however, hardly any refugees continue to use traditional medicine. Only six refugees, or 15 percent of participants in my study, reported use of any natural medicines in the U.S, as seen in Figure 2. Of those who had used traditional medicines in Myanmar, 80 percent rely only on Western medicine, and have ceased use of traditional methods

[91] Wodniak, "Healthcare Experiences," 11.

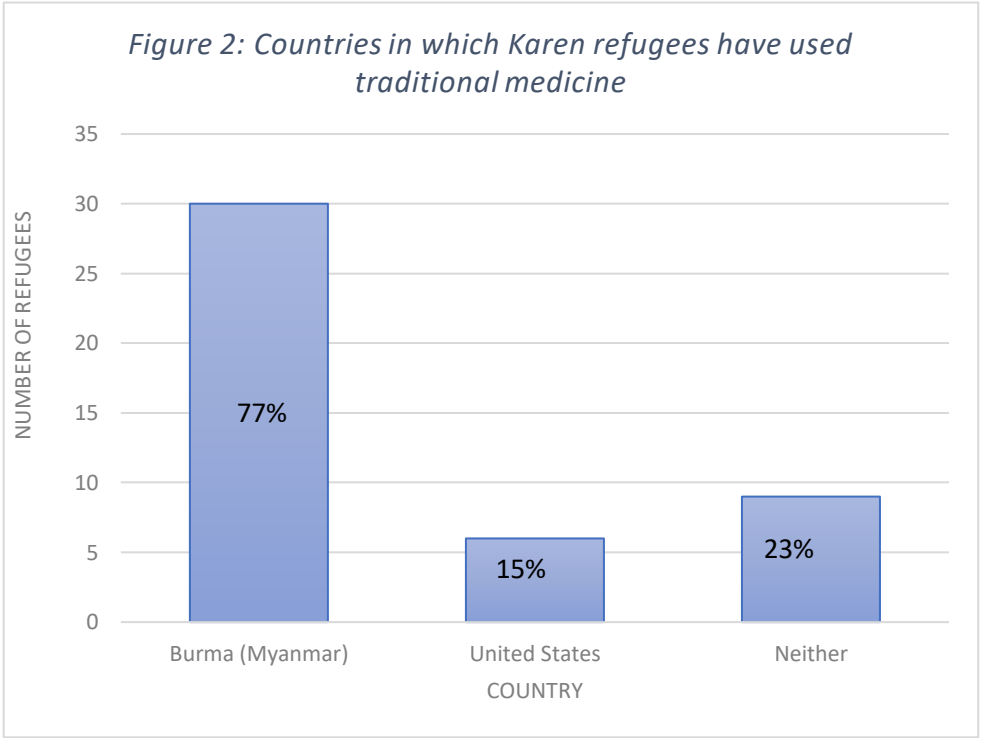
altogether. Instead of using familiar methods, most refugees now trust the effectiveness of Western medicine:

> *"[Western medicine is] very effective, of course, because we use that whenever we have any kind of sickness, we use all the Western medicine."*

> *"No, we don't use it [traditional medicine] anymore. If I need to take medication, like a headache or fever, I went to the store and get Tylenol or something like that."*[92]

Even for refugees who had been unfamiliar with Western medicine before coming to America, it is now accepted and utilized. However, some refugees still choose traditional methods over Western medicine. For those who seek out traditional medicine even though Western medicine is easily available to them, natural methods have become an integral part of their lifestyle.

Figure 2: Countries in which Karen refugees have used traditional medicine



Source: Wodniak, "Healthcare Experiences," 12.

[92] Ibid.

Participants in my study reported using traditional medicines for stomachaches, fever, and blood pressure.[93] It takes a significant effort to continue to use traditional medicine in America; traditional practices are often stigmatized. Western medicine is so dominant in the U.S. that any other methods can be discredited without much thought. Some refugees in my study noted that one of the main reasons they no longer use traditional medicine is that it is looked down upon:

"If you use [traditional medicine] in America, people will laugh at you."

The decline in traditional medicine usage in the United States is concerning; it is the loss of an integral component of culture. I state in the discussion of my paper:

> "A major finding of this study is the decrease in usage of traditional medicine as refugees moved from Burma to the United States. While 77% of participants used medicinal plants in Burma, only 15% admitted to retaining their use of traditional medicine in the United States. This significant drop in the use of natural medicine represents a loss of cultural knowledge, and even a loss of culture itself. As traditional medicinal practices have been in practice for centuries, they have become an important component of the culture and lifestyle of communities. However, during the transition to life in America, it seems that traditional medicine is one of the first components of refugees' culture to disintegrate as they try to assimilate into American society."[94]

Although it is a multicultural nation, the United States has not proven to be accepting of the medical beliefs of other cultures. It needs to be recognized that immigrants and refugees

[93] Ibid., 13.
[94] Ibid., 19.

entering the United States may not be familiar with Western medicine, and that some of their traditional methods may be effective. Even those refugees that do not use traditional medicine in the United States believe that traditional medicine used in Myanmar is effective, so it is likely that if traditional medicines were made available to U.S. residents and if natural medicine were not presented in a negative light, more refugees would continue to use traditional methods. We should be open to accepting alternative forms of healthcare; traditional medicine can complement the successes of Western medicine on an individual level. With a more pluralized approach to healthcare, refugees may feel more comfortable in transitioning to American society, and their health can greatly improve as a result.

Chapter Four. Preserving Traditional Medicinal Knowledge: Urban Ethnobotany, Research, and Education

A unique way to contribute to the preservation of traditional medicinal knowledge is through urban ethnobotany. Urban ethnobotany is simply the incorporation of plant knowledge into developed regions, namely through the use of traditional medicines in cities. It provides the opportunity to extend traditional knowledge to people far from the place of origin, which allows for more people to benefit from medicinal plants. In urban, globalized settings, cultural medicinal practices can be kept alive in what appears to be a progressive and modernizing world.[95] The use of urban ethnobotany assists healthcare in becoming more pluralistic: instead of solely focusing on modern methods, people can partake in both Western and traditional

[95] Ina Vandebroeck and Michael J. Balick, "Globalization and Loss of Plant Knowledge: Challenging the Paradigm," (2012). Vandebroeck and Balick, 2012.

medicines. A pluralized approach to medicine allows for people to utilize multiple practices in order to sufficiently fit their health needs.

Urban ethnobotany in the form of traditional medicine can advance health care on the home level, to cure simple illnesses, and on the community level, to address public health concerns. In many developing countries, where indigenous knowledge is readily accessible, traditional medicine has successfully integrated into urban environments. Researchers for the World Health Organization found that in Peru, knowledge of plant use is nearly identical at herbalist shops and at professional healthcare clinics, indicating that traditional knowledge has effectively infiltrated into various forms of healthcare.[96] By incorporating traditional medicine into healthcare systems, the health of large populations can improve. Bodeker and Neumann state: "Many traditional medicine therapies are more affordable, locally available, culturally familiar, and in some cases safer than Western pharmaceuticals, making traditional medicine a valuable resource for public health development worldwide."[97]

It is possible to integrate traditional medicine into modern medical systems; traditional medicine does not detract from modern forms of medicine, but it instead complements Western medical knowledge. Traditional medicinal knowledge is evident in developed nations, even though modern medicine may be favored. Many people in developed nations use herbal remedies or natural supplements to meet their health needs; herbal supplements are becoming more and more popular in health food stores and markets. One doctor in New York City found that 85% of patients in his Columbia Emergency Room speak Spanish, and most of them frequent local markets for herbal remedies to care for their well-being. He iterated that it is valuable for physicians to be aware of which remedies their patients are using so they are better able to

[96] World Health Organization Convention on Biological Diversity, "Traditional Medicine."
[97] Bodeker and Neumann, "Revitalization," 9.

maximize healing in each patient.[98] The combination of traditional medicine with modern medicine has the ability to produce more comprehensive results than either of the methods can produce individually; urban ethnobotany provides the possibility for individuals to reap the benefits of more than one approach to medicine.

While the study of urban ethnobotany is a relatively new field, some research has been done on the integration of ethnobotany into diaspora communities of New York City. Through urban ethnobotany, it is possible to compare the knowledge that specific cultural groups obtained both in their original and new environments. Vandebroeck and Balick researched the Dominican community in Washington Heights, comparing the ethnomedical uses of plants in New York City to the native uses of plants in the Dominican Republic. Dominicans, as the second largest Latino community in New York City, brought their medicinal practices to their new communities when they migrated to the United States. Migration can pressure the integrity of traditional knowledge; in the midst of unfamiliar and multiethnic cultures, it can be difficult to maintain the same level of knowledge as in immigrants' home nations. Medicinal knowledge is also vulnerable to being lost in developed nations because of the reliance on modern healthcare and the lack of cultural support for migrant communities. Despite the natural tendencies for traditional knowledge to diminish due to migration, Vandebroeck and Balick found that traditional knowledge was maintained and even increased in migrant Dominican communities. They concluded that ethnomedicine is as rich in New York City as it is in the Caribbean; traditional knowledge was successfully preserved.[99] While a similar result was not seen in my

[98] Michael J. Balick and Roberta Lee, "Looking Within: Urban Ethnomedicine and Ethnobotany," *Alternative Therapies in Health and Medicine* 7, no. 4 (July/August 2001).
[99] Vandebroeck and Balick, "Globalization."

study on Burmese refugees, Vandebroeck and Balick's study brings hope that traditional medicinal knowledge does not have to disappear upon arrival in the United States.

Balick and Lee also conducted a study on urban ethnobotany, studying traditional Latino healers that were treating women's health conditions such as fibroids and menorrhagia in New York City. The healers prescribed 67 species, including beets, agave, sugar, and chamomile, to treat the conditions, which were consistent with the remedies used in the Dominican Republic. When studying Dominican food medicines, or foods that serve secondary medicinal purposes, researchers found that Dominicans in New York City ingested more than Dominicans in the Dominican Republic.[100] The surprising increase in traditional knowledge due to migration provides hope that traditional knowledge does not have to be lost in urban communities. Traditional medicine can exist, and even flourish, in developed cities and nations.

Refugees in the United States would benefit from seeing some of their familiar traditional medicines in pharmacies. One refugee I interviewed in my study mentioned:

> *"We want to try to see medicines from Asia, from Thailand. What did we use, like in refugee camps, you know. So if we have a pharmacy and they are selling the medicines like this, it's better."*[101]

Familiarity is important to refugees who enter a country that is completely unlike their own. Being able to see some of their traditional remedies on the shelves in pharmacies would likely make them feel more comfortable in the United States, and they would feel more inclined to retain their knowledge of traditional medicines. Since plant medicine was such an important part of their culture when they lived in Myanmar, continuing to use traditional medicinal methods could help refugees to maintain their unique cultures in the United States.

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[100] Balick and Lee, "Looking Within."
[101] Wodniak, "Healthcare Experiences," 13.

The preservation of traditional medicinal knowledge can be further enhanced by committing to research and education on the effectiveness and legitimacy of traditional medicines. Although many modern pharmaceuticals have been derived from medicinal plants, they represent only a small percentage of the medicinal compounds that likely exist in nature. Most medicinal plants have not yet been studied; it takes a significant amount of time and funding in order to test a plant for medicinal properties and to reach FDA approval in the United States. On average, it takes $231 million and 10 years to complete testing and clinical trials to approve a compound as a new drug.[102] Even if a medicinal plant that has been used effectively for decades, it must undergo the same rigorous testing processes as any synthetic or randomly screened compounds in order to receive FDA approval. Pharmaceutical funds are limited, and priority is given to the manufacture of new drugs by synthesizing chemical compounds rather than by studying the medicinal properties of plants. Therefore, many herbal and plant-based medicines are not prioritized for scientific testing. However, traditional medicines would likely be more accepted and widely used in American society if they were scientifically proven to have the intended effects.

Plants that have been used for traditional medicine have great potential to influence new pharmaceutical drugs, as well as complement the health of populations on their own. Traditional medicine has components of truth, and it is likely that through the research, evaluation, and clinical trials of plant medicines, many plant-derived compounds would reach FDA approval. The time and money that could be spent researching natural medicines would prove to be worthwhile; it would encourage refugees to retain the use of traditional medicine in the United States, thus preserving their cultures and improving their health, as well as provide additional

[102] Balick, Elisabetsky, and Laird, *Medicinal Resources.*

treatments for those who solely use Western medicine. Traditional medicine has many benefits, and some academics have advocated for its continued use: "Traditional medical knowledge is important not only for its potential contribution to drug development and market values, but also for people's health care in the past, present and future."[103] By acknowledging the traditions that have occurred for centuries, we can improve the health of people today.

Healthcare providers in the United States should recognize the traditional methods some of their patients may use, and even be open to incorporating culturally-familiar medicines into a patient's healthcare regimen. One study that researched the benefits of herbal medicines states: "Because many herbal medicines have significant pharmacological activity, and thus potential adverse effects and drug interactions, healthcare professionals must be familiar with this therapeutic modality."[104] If traditional medicines are known to be effective, there is no need to discourage their use. Education on the benefits of certain plant medicines, along with continued scientific research on natural compounds, can contribute to the improved health of refugees.

The proven effectiveness of traditional medicinal methods should influence Western societies to adopt more pluralistic systems of healthcare. There should be no legitimate reason for refugees to be afraid that if they used plant medicines, doctors would laugh at them, as some refugees explained in my interviews.[105] If traditional methods were accepted as beneficial by both the general population and medical professionals, immigrants and refugees would likely feel more comfortable using plants as a component of their medical care, as many of them have done for their whole lives. Through urban ethnobotany, scientific research, and education,

[103] Sheng-Ji, "Ethnobotanical Approaches," 78.
[104] Barrett, Kiefer, and Rabago, "Assessing the Risks," 40.
[105] See Chapter Three.

refugees may be more encouraged to preserve the unique components of their cultures that can not only benefit their own health, but also benefit the health of a wider population.

Chapter Five. Considerations for the Future of Traditional Medicine

Natural medicine holds the potential to greatly benefit people throughout the world. Through using plants and herbs for medicinal purposes, people are able to make use of some of the ecological services of the environment and foster a sustainable relationship with the natural world. The knowledge of medicinal plants is a significant component of many traditional cultures, and it is important to sustain these vital parts of culture in order to utilize ecosystem services and to improve the overall health of communities. However, as traditional knowledge is lost and Western styles of medicine become favored, the perceived value of medicinal plants can decrease, lessening the possibility for people to improve their health through pluralized care. With the loss of traditional knowledge, the opportunity to advance medical treatments through the study of medicinal plant compounds diminishes, as well. The preservation of traditional medicinal knowledge can benefit both traditional and modern societies, and the topic should be given attention in cultural and scientific studies.

Minority ethnicities in Myanmar, as well as other traditional societies throughout the world, have relied on natural medicines to sustain their health for centuries. Traditional healers are immensely knowledgeable about the plant and herbal remedies available in their regions, and most people are informed of basic remedies they can use within their homes, as well. When conflicts arise and minorities are forced to become refugees, it becomes more difficult for them to rely on traditional medicines. Although healthcare is a primary focus of humanitarian aid in

refugee crises, the humanitarian care in refugee camps consists primarily of Western medicine. Burmese refugees, though, are often entirely unfamiliar with Western methods upon their arrival in refugee camps. In overcrowded camps, it can be difficult to seek timely care, and certain medical conditions may go unnoticed.

The use of traditional medicine in refugee camps, though, holds the potential to improve the overall health of refugee populations, as it would allow remedies to reach a larger population and complement the care available in humanitarian clinics. Traditional medicine could address health issues that are often overlooked in refugee camps, creating a more comprehensive approach to refugee health. Collaboration between humanitarian medical staff and traditional healers would improve both parties' knowledge about forms of medicine they are unfamiliar with and allow them to direct sick or injured refugees to the type of clinic that would be best able to suit their individual needs. Additionally, the continued use of traditional medicine once refugees have left their home country could increase the possibility for traditional medicinal knowledge to be passed down to future generations. This preserved knowledge could not only improve the future of refugee health, but contribute to wider medical knowledge and the advancement of treatments, as well.

Once resettled refugees arrive in the United States, their use of traditional medicine decreases even more so than in refugee camps. It is not necessarily a bad thing for them to rely - on Western medicine, but in an environment with a pluralized approach to medicine, refugees would be more likely to continue to use the traditional methods they were familiar with in Myanmar, thus improving their overall health and well-being, and providing the opportunity for more people to learn about the benefits of medicinal plants. Through urban ethnobotany, medicinal plants and herbs could be made more accessible in cities, which could not only

encourage those familiar with the remedies to use them, but could also educate other populations about the field of traditional medicine. By expanding public knowledge about natural medicines, plant and herbal medicines may become more accepted in society as legitimate forms of healthcare, and some traditional knowledge could continue to be passed down to future generations.

Medicinal plants and herbs can improve the health of entire communities, if they are effectively integrated into existing systems of healthcare. By using both traditional medicines and Western medicines, Burmese refugees can optimize their health while preserving vital components of their culture. Traditional medicine should not be discounted as a useless form of medical treatment, even when Western medicine is readily accessible. Rather, traditional medicine should supplement Western medicine, providing alternative forms of treatment and filling in any gaps with individuals' health needs. With a broadened approach to medicine, individuals would be encouraged to use whichever practices they see fit for each medical situation. Burmese refugees, as well as individuals of any ethnicity or nationality, would greatly benefit from the integration of traditional medicine into modern societies. Preserving traditional medicinal knowledge not only provides cultural benefits, but also optimizes the availability of healthcare and provides the opportunity for tremendous scientific discoveries in the field of medicine.

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