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On the frontline of eastern Burma's chronic conflict – Listening to the voices of local health workers

Katherine H.A. Footer [a,*], Sarah Meyer [b], Susan G. Sherman [c], Leonard Rubenstein [a]

[a] Center for Public Health and Human Rights, Department of Epidemiology, Johns Hopkins School of Public Health, 615 N. Wolfe Street/E7141, Baltimore, MD 21205, USA
[b] Department of International Health, Johns Hopkins School of Public Health, Baltimore, MD 21205, USA
[c] Department of Epidemiology, Johns Hopkins School of Public Health, Baltimore, MD 21205, USA

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ABSTRACT

Globally, attacks on and interferences with health workers and healthcare delivery, including targeted violence towards providers, attacks on hospitals and delays and denial of health care, represent a serious humanitarian and human rights issue. However, gaps in research about these events persist, limiting the evidence base from which to understand and address the problem. This paper focuses on experiences of local health workers in eastern Burma's chronic conflict, including their strategies for addressing security and ensuring access to vulnerable ethnic communities in the region. Face-to-face in-depth interviews were conducted in June and August 2012 with 27 health workers from three health organizations that operate throughout eastern Burma, with their operational head quarters located in Mae Sot, Tak Province, Thailand. Qualitative analysis found that health workers in this setting experience violent and non-violent interferences with their work, and that the Burmese government's military activities in the region have severely impacted access to care, which remains restricted. Data show that innovative security strategies have emerged, including the important role of the community in ensuring securer access to health care. This study underscores health workers' concern for improved data collection to support the rights of health workers to provide health care, and the rights of community members to receive health care in conflict-affected settings. Findings will inform the development of an incident reporting form to improve systematic data collection and documentation of attacks on health in this setting.
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1. Introduction

In contemporary conflicts and fragile settings, health care is frequently under attack, with violence – both real and threatened – affecting access to and delivery of health care (ICRC, 2011b). Forms of violence include physical attacks on health workers (HW), patients and infrastructure, as well as indirect interference with healthcare delivery caused by general insecurity or intimidation (Rubenstein and Bittle, 2010). The impact of conflict on HWs and service delivery is wide ranging and includes destruction of health facilities, transports, supplies and equipment, as well as overall reduced access to health services, including disease control programs.

According to the International Committee of the Red Cross (ICRC), violence against HWs and patients is one of the most overlooked humanitarian issues today (ICRC, 2011a). In a study of 921 violent incidents affecting health care in 22 conflict-affected countries during 2012, of the 319 incidents involving health personnel, local HWs accounted for 91% of incidents (ICRC, 2013). Targeted violence and general insecurity are important drivers of displacement and migration of HWs (Betsi et al., 2006; Burnham et al., 2009). The loss of trained HWs presents one of the largest obstacles to meeting health care needs post-conflict (Leather et al., 2006; Nagai et al., 2007).

Despite the enormity of the problem, a paucity of data exists on the extent and nature of violence towards health care in conflict and other situations of civil unrest. A number of recent peer-reviewed studies describe HW's experience of violence in conflict, or the coping strategies HWs have developed (Dhar et al., 2012; Din et al., 2012; Sousa and Hagopian, 2011), but more country-based qualitative research is required to shed light on the context-specific aspects of violence. The need for a better evidence base has prompted attention at the international level (Rubenstein, 2012) with efforts to expand reporting mechanisms underway

* Corresponding author.
E-mail addresses: kfooter@jhsph.edu, kfooter1@gmail.com (K.H.A. Footer).

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(Security Council, 2011; WHO, 2012). To date, most documentation of attacks on health care has been ad hoc, through international and local human rights NGOs, and, in some settings, health providers.

In eastern Burma health providers and local human rights organizations have documented and published information on attacks, but without a validated reporting form. To determine the feasibility of developing an incident reporting form to enable systematic monitoring of attacks and interferences with health care in conflict affected areas of eastern Burma, a preliminary qualitative study was conducted on the Thai–Burma border. The study focuses on HW's experiences of providing care in conflict-affected eastern Burma, the results of which are presented here.

Burma is an ethnically diverse country, and minority groups are spread throughout the country's 14 provinces, particularly mountainous eastern frontiers (BPHWT, 2006). Burma is also known as Myanmar. We use Burma throughout, in accordance with the preference of the 1990 General Elector winner, the National League for Democracy. From 1962 to 2011, the Burma military ruled directly, or indirectly, through the guise of a civilian government. Throughout this period, and continuing to date in some areas such as Kachin State, ethnic populations have been affected by conflicts between a militarized state and dozens of insurgent groups. This included active resistance along the eastern frontier bordering Thailand, where a counter-insurgency strategy known as the Four Cuts led to forcible relocation of civilians, accompanied by confiscation of land and property, denial of food, curfews, placement of landmines, and other strategies giving rise to a large population of internally displaced persons (IDPs) in the region (Risser et al., 2004). A survey in 2012 by The Border Consortium of 36 townships estimated 400,000 IDPs in the southeastern region (TBC, 2012). Serious and widespread human rights abuses by the Burmese army (known locally, and referred to throughout this paper, as the *Tatmadaw*) and – less systematically Non-State Armed Groups (NSAGs) is well documented (Amnesty, 2013; HRW, 2012; KHRG, 2010). Although ceasefire agreements have been signed throughout this period, historically they have proved nothing more than temporary truces, with little improvement in conditions for civilians (South, 2012).

Over the last two years the government has taken significant steps towards democracy. The first general election in 20 years occurred in 2010 and by mid-2012, 10 of the 11 most significant NSAGs entered ceasefires. The last major group still in combat with the Burmese Army remains the Kachin Independence Army. However, reports by Physicians for Human Rights in 2011 and 2012 provide compelling evidence that the Burmese army continues to commit human rights violations in both Kachin and Karen States (Davis, 2011, 2012).

Poor quality and access to health care is reflected in Burma's overall health indicators. The under-5 infant mortality rate per 1000 live births is 41 in Burma, compared with 11 in Thailand (World Bank, 2013). In eastern Burma, previous higher estimates of infant mortality (89 per 1000 live births), and child mortality (218 per 1000 live births) appear linked to ethnic communities' exposure to human rights violations and systemic marginalization from clinical services (Lee et al., 2006; Mullany et al., 2008). Estimates of maternal mortality ratios (approximately 1000 per 100,000 live births) are high, particularly in areas of eastern Burma where low-level conflict has led to displacement and limited access to state health care (BPHWT, 2006). The additional impact of chronic conflict on health in eastern Burma has been evidenced by high prevalence of many infectious diseases, including malaria, HIV, and multi-drug resistant tuberculosis (Beyrer et al., 2007).

For the last two decades, the ruling junta blocked state and international humanitarian assistance to IDPs and vulnerable communities, with severely limited access to health care in Karen, Kayah, Mon, Arakan, Kachin, Shan States, and the Tenasserim Division. Denied reliable access to basic housing, food, water, and health care, many communities have hid in jungles or temporary settlements (BPHWT, 2006). Community health organizations have filled the service gap left by the state, but work has often proved dangerous. The direct targeting of HWs has included kidnappings by the Tatmadaw, while government restrictions on movement prevented patients and HWs accessing clinics. Individuals who contravened restrictions risked being shot on site by Tatmadaw forces (KHRG, 2010; Lee et al., 2006).

The targeting of health, including attacks on HWs and indirect interferences that impede access to patients, represent violations of international law. International humanitarian law (IHL) and human rights law, including the right to health, provide important frameworks for respect and protection of health care in conflict (Footer and Rubenstein, 2013). This paper adds to the small number of recent peer-reviewed articles focusing on HW's experiences of violations in a chronic conflict setting.

The results of this research informed development of an incident reporting form by a study team at Johns Hopkins Bloomberg School of Public Health (JHSPH) for use by partnering health organizations in the setting of eastern Burma. The content and validation of this form will be reported on elsewhere. It is hoped that the form will be used as a model for reporting in other conflict settings.

2. Methods

This paper is based on 27 semi-structured in-depth interviews with HWs from Burma, conducted in June and August 2012. The study design sought to elicit information to: 1) describe the types of attacks and interferences with health care in eastern Burma, 2) identify their impact on access and availability of health services 3) explore current approaches to protection and security of HWs and 4) examine attitudes toward reporting violations for the purpose of accountability. To ensure a richness of experiences was captured in the data, the study explored HW's exposure to conflict over the previous 10 years.

2.1. Setting

The research was conducted primarily in Mae Sot, a semi-urban setting in the Tak Province of Thailand. The town is 3 km from the Burmese border town of Myawaddy and functions as headquarters for many community-based organizations working in eastern Burma, including the administrative and training head quarters of the three participating health organizations. One field site visit was made to a clinic site in Umphang, a rural setting in the southwest district of Tak Province. Information on available state-provided health services in eastern Burma is limited, however innovative cross-border local partnerships still provide the majority of services to eastern Burma's border regions. All participating organizations work to strengthen local ethnic health infrastructure within eastern Burma, providing health services to populations who would otherwise go without. The organizations train hundreds of multi-ethnic HWs who work within their communities and implement a range of health programs, including: medical care programs, mother and child programs, community health education and prevention, malaria, tuberculosis, and Vitamin A supplementation programs, among others. The organizations collectively serve a target population of between 180,000 and 190,000 IDPs and other vulnerable people in Karen, Kayah Mon, Arakan, Kachin and Shan States and the Tenasserim Division. Some HWs operate as fully mobile teams carrying supplies and services to populations in eastern Burma's least stable and most remote areas, while others

work in mobile clinics able to relocate at short notice based on factors such as security and displacement.

2.2. Study population

Participating health organizations were selected based on the research team's prior knowledge of their work and suitability. This was judged both in terms of expressions of interest in developing an incident reporting form and ability of senior staff at the organizations to identify potential participants for the study with knowledge and experience of providing health care in insecure, conflict affected regions of eastern Burma. Each organization's participation was secured through meetings between the field coordinator and senior staff, with information on the study and proposed outcomes explained and discussed.

Through site visits to the health organizations and with the help of their senior staff, the field coordinator invited HWs temporarily visiting their organizational headquarters for training to participate in the study. Eligibility criteria required participants be 18 years or older and be a HW with experience of working in rural conflict-affected regions of eastern Burma. Maximum variation was sought in terms of geographical location of their work, gender, and years of experience (Teddlie and Yu, 2007). The target sample size for in-depth interviews was 20 participants. However, saturation, when no new information was obtained from interviews (Morse, 2000), was not reached at 20 and recruitment extended to collect additional data on important topics that emerged in the initial interviews. The final sample of 27 was reached when no new themes emerged.

2.2.1. Measurement and analysis

An interview guide was developed by the research team based on the themes related to the study's aims. The interview team consisted of 3 researchers from JHSPH and one trained local study team member. The guide covered the following topics relevant to incident reporting form development: 1) knowledge and experience of attacks on and interferences with HWs, patients and clinics; 2) impact of attacks and interferences with access and delivery of health care; 3) protection strategies; and 4) HW's views towards reporting violations. Prior to the interviews details of the study purpose were provided and verbal informed consent was obtained. Local, experienced translators were hired and all interviews were conducted in the participant's native language of Burmese or Karen. Names and personal information were not collected and digital recording was only used with permission. Interviews were transcribed verbatim, translated into English by the same translators, and checked for accuracy by the selection of a random sample for back translation.

Key informant interviews were conducted with stakeholders located in Mae Sot, including staff members from an international humanitarian organization, local health organizations and a local human rights group operating in conflict regions of eastern Burma. Digital recording was used with permission, and when conducted by phone, detailed notes were taken instead. The interviews were not transcribed, but provided additional background from individuals with particular knowledge of the problem of violence towards health care. Field notes from the key informant interviews helped triangulate the in-depth interview data and confirm the challenges facing health care delivery in this setting.

The first two authors coded the data using a multi-step process of thematic analysis. Two interviews were selected for open coding, highlighting segments and annotating margins with respect to how portions of text related to interview guide domains. This process created an initial large group of codes that were "provisional and tentative" (Boychuk Duchscher and Morgan, 2004). Analysis then used a constant comparative method, which involves searching for similarities and differences in the texts and attempting to saturate the codes that emerge from open coding, contrasting the data to itself and emerging codes and themes (Lingard et al., 2008). The labels and codes that emerged from this process informed the first codebook. Subsequently three of the authors developed consensus coding through joint coding of further interviews, and revision of the codebook through team discussions. All transcripts were coded by the first two authors using Hyperresearch 2.8 © with cross checking to ensure coding consistency. This collaborative analysis allowed revision and refinement to codes, with the aim of linking core themes to the study aims.

The JHSPH Institutional Review Board and a local review board convened in Mae Sot, Thailand provided approval for human subjects research.

3. Results

Findings are presented as they related to the pre-identified research themes, and additional emergent themes. Quotations are selected on the basis of richness and depth to reflect participant's voices (Blignault and Ritchie, 2009) and are representative of the breadth of participant experiences and views.

3.1. Description of participants

HWs consisted of 18 women and 9 men from Karen ($n = 20$), Kayah ($n = 3$), Palaung Self Administered Zone (Shan) ($n = 2$), and Kachin ($n = 2$) states. Respondents ranged in age from 19 to 56 and had between one and 15 years experience as either general front-line line health workers, reproductive health providers or senior frontline staff working inside eastern Burma, including Karen, Northern Kayah (Karenni), Kachin, Shan (including the Palaung Self-Administered Zone), Mon states and the Tenasserim Division.

HW accounts indicate that access to health care in eastern Burma has been curtailed due to attacks on and interferences with HWs and clinics, and a climate of pervasive insecurity and ethnic tension arising from the conflict. Innovative security and protection measures emerged as critical to HW's resilience. Reporting of violations also emerged as a potential source of empowerment for local HWs as victims, and for the broader community they serve. These themes are considered below.

3.1.1. Attacks and interferences experienced by HWs

The majority of participants reported direct knowledge of targeted attacks on HWs, arrests, and demands for bribes, as well as destruction and looting of clinics by the Tatmadaw. Although violence was a common theme in the accounts, respondents reported it had been less frequent in recent years, although implicit or explicit threats of violence such as demands for bribes and confiscation of medicines continued despite the ceasefires. A small number of participants [$n = 3$] did not report knowledge of any forms of violence; this was due to the fact that they worked in secure areas with no fighting. The attacks and interferences described occurred across a number of different states, including Karen, Shan, and Kachin states, both in village settings and while HW's traveled within states.

3.1.1.1. Physical attacks

The majority of HWs either conveyed personal experiences of an interference or physical attack by the Tatmadaw, or heard first hand about them from colleagues. All respondents identified a general climate of insecurity and fear in geographical areas where they have delivered care, stemming from violence inflicted on the local

population. The risks HWs face when encountering government forces are well-illustrated by one HW who works as part of a mobile team:

> *Our team leader had to cross the road one time. He suddenly met the Tatmadaw there and fled. It happened in 2010… the Burmese army shot at him but he escaped … if the army could have hit him they would have done so.*
>
> — Male, 36yrs, Karen

In addition to encounters with the army during travel within insecure areas to reach patients, HWs described being targeted whilst providing care:

> *One of our health workers in 2010 was giving health care when the Tatmadaw arrived and burned the village. The villagers fled and he gave health care, but the army found him and shot the health worker dead.*
>
> — Male, 41yrs, Karen

The "black zone" is a term used to describe disputed ethnic territories where government soldiers were permitted to shoot opposition forces on sight. In these areas HWs described the risk of targeting to include HWs and civilians:

> *Sometimes, in those areas [black zones], not only our health workers but even villagers were shot. They shot if they found anyone in the forest.*
>
> — Male, 58yrs, Karen

3.1.1.2. Arrests and bribes

In providing care to ethnic populations HWs operate without Burmese government authority, passing through clandestine border crossings and negotiating checkpoints. Consequently many HWs spoke of the risk of arrest. A HW with 17 years field experience described an arrest:

> *A colleague was arrested… we were worrying that they [the Tatmadaw] would kill him, but he was released after one week. There were injuries to his body. He was given food and water, but it was not enough. They asked him if he was from the Karen National Union party or not, they also asked him other things, he answered them that he was just a simple health worker.*
>
> — Male, 34yrs, Karen

Accounts of arrests were accompanied by descriptions of HWs experiencing torture and cruel treatment at the hands of the Tatmadaw. In describing a 4–6 month arrest, a HW who informed her colleague's parents of their son's arrest described his treatment:

> *He was punched because he couldn't answer their questions. He was confused about whether he should answer them [the Tatmadaw] or not. He felt there was nothing wrong in doing his job. So he suffered pain because he didn't answer what they asked him. No food was provided to him. [When asked how such incidents impact on HWs, she responded:] I feel like an enemy is constantly following behind us when such situations are shared among us.*
>
> — Female, 25yrs, Karen

A number of HWs described paying bribes to avoid arrest. A HW was arrested because he carried medical logbooks. The HW explained that matters were "*solved within hours*" as "*all they wanted was money*" — *male, 26yrs, Palaung*. The payment of bribes frequently occurred at checkpoints as HWs moved between areas. HWs reported that police and soldiers held HWs up for questioning, often confiscating medical supplies and equipment during the interrogation process. One HW described checkpoints in Karen State where the Tatmadaw "*search and take our medicines and then punish those who carry these things.*" — *Male, 30yrs, Karen.* Another HW explained that he "*stopped traveling with medicines after I was asked for money at the check points.*" — *Male, 34yrs, Karen.*

3.1.2. Attacks on and interference with clinics

HWs providing care in areas of high military activity recounted a handful of incidents involving destruction of clinics. The dates of incidents span a decade from 2000 to 2010. HWs described clinics destroyed by various means, including being "burnt" and "dismantled." More commonly HWs reflected that clinics were destroyed as part of an attack on civilians, perpetrated not only the Tatmadaw, but also other parties to the conflict, such as the Democratic Karen Buddhist Army (DKBA).

HWs also spoke of clinics specifically targeted for destruction. A HW providing TB programming, with 7 years field experience, described a case in 2010:

> *The enemy [the Tatmadaw] came and burned the clinic… they didn't burn the whole village, they burned only the area of the clinic.*
>
> — Female, 36yrs, Karen

HWs described destruction and looting of medical supplies and equipment, such as microscopes. A HW recounted how the Tatmadaw took everything during an attack in 2008:

> *They dismantled the doors and took all the medical supplies… they left nothing, they even took our Christmas tree.*
>
> — Female, 45yrs, Karen

In many cases clinics were not reopened in the same location. A HW in the field since 2001 explained:

> *We abandoned the clinic and moved to another. We did not dare go back because they* [the Tatmadaw] *had set up land mines. We would usually change our location every year.*
>
> — Female, 44yrs, Karen

Finally, HWs recounted incidents where the Burmese army occupied clinics. One HW described how Tatmadaw forces used a clinic to treat their own soldiers rather than destroy it:

> *I think they [the Tatmadaw] noticed it was a clinic, so they didn't burn it. They had wounded soldiers and used our medical facilities to treat them.*
>
> — Female, 38yrs, Karen

4. Climate of vulnerability

4.1. Pervasive insecurity

Insecurity was identified as a major barrier to health care delivery. Long-term systematic intimidation, abuse of local communities, and targeting of HWs living with and providing services to

these populations has led to pervasive fear of the Tatmadaw, even in ceasefire areas. Describing the conditions under which care is delivered HWs talked of being "prepared to run" at anytime:

> *We might run away even when we are in the process of medical treatment, just to avoid the Tatmadaw.*
>
> — Female, 26yrs, Kachin

Where the Tatmadaw has been proximal to a village anxiety of encountering troops sometimes prevented HWs from visiting patients. A HW explained:

> *For instance, we knew that a patient had a serious health issue and we needed to go to the village but we were afraid of going there. They [the villagers] knew where we were so they came to see us at night and secretly got health services.*
>
> — Male, 36yrs, Karen

The impact of pervasive fear was illustrated by HW's unwillingness to carry medical supplies to Tatmadaw-controlled areas. A HW with 12 years field experience explained:

> *We don't carry the medicines in Tatmadaw controlled areas because something may happen. No one carries it.*
>
> — Male, 22yrs, Karen

When HWs were questioned about what might happen if the Tatmadaw encountered them carrying medicines, responses included, "arrested," "questioned" and "tortured".

4.2. Impact of ethnic identity

HWs reported that belonging to health organizations that support and serve ethnic populations put them at greater risk of targeting. HWs frequently explained that the Tatmadaw perceived them as supporters of resistance groups as opposed to impartial caregivers. As one HW, working in eastern Burma since 2004, explained:

> *From my perspective if they know we are from [health organization name removed] they will conclude we are supporting rebels, without thinking that we are working for our people. They just think we support armed groups… If it is like that there can be a lot of dangers.*
>
> — Female, 26yrs, Kachin

Simply being from ethnic communities and providing care to those populations emerged as a critical factor in targeting HWs. A HW involved in training birth attendants and working in Burma for the last 8 years explained:

> *Because we are health workers for our people, if they know this they will kill us, they won't let us go. We are afraid that they will kill us. They will abuse us. They will hurt us.*
>
> — Female, 26yrs, Karen

HWs repeatedly identified vulnerability to attack as linked to providing care to minority ethnic groups:

> *We are at risk carrying medicines. It is not easy to face government soldiers. They think that we provide these medicines to help other ethnics.*
>
> —Female, 24yrs, Palaung

This theme pervaded many interviews, highlighting how targeting of health care has been a tactic of domination and subjugation of ethnic communities, and reflecting a lack of respect for HW's rights to provide care to target populations irrespective of their ethnicity, religion or political beliefs. In contrast HWs strongly identified with the principle of medical impartiality and ethical responsibility to treat all parties to the conflict:

> *We have given treatment to the Tatmadaw, for instance one of the health workers who was recently detained gave care to a sergeant and he was cured, it was a landmine injury. We have no special policy, we have to treat and care for all human beings, there is no special case.*
>
> — Male, 41yrs, Karen

5. Impact on health care access

HWs spoke of the impact of attacks and interference on availability and accessibility for them as providers and those seeking care. The ability to provide prompt, at times life-saving treatment, is hampered by limitations on timely access to patients:

> *Sometimes we take longer than usual or are not allowed to go at all because we could be put at risk. Therefore we avoid the usual route and spend at least double the amount of time going another way.*
>
> — Male, 30yrs, Karen.

A senior HW working in eastern Burma since 1998 described an incident near the beginning of his career where a landmine victim was in need of a blood transfusion:

> *The blood bank could not bring blood because the Tatmadaw had positions on the way, the patient died. If they had seen me with blood it would have been difficult for me, they would have arrested and killed me.*
>
> — Male, 41yrs, Karen

A HW participating in delivery of malaria programs described delays treating a patient with malaria:

> *He [the patient] should have traveled immediately to another clinic, but because of government soldiers we had to stay and cross late at night, so the patient was very severely ill when we arrived and we had to give IV treatment. Because of the delay he was far sicker on arrival.*
>
> — Female, 44yrs, Karen

In some areas villagers receive no access to health care due to high levels of insecurity. This restriction includes access to disease control programs:

> *We had a malaria program, a TB program, school health, reproductive health, traditional birth attendant training, Vitamin A, D, worming and lastly our universal provision. Altogether 10 programs. [Interviewer: So just to recap before the fighting happened you had 10 programs and after that you only had two programs?] Yes, we tried our best to balance our activities and return to the areas little by little.*
>
> — Female, 45yrs, Karen

Impacts of clinic destruction included the loss of essential medical supplies and equipment and severe reductions in medical

services where clinics no longer operate. In a setting where patient referrals include landmine injuries, labor complications, and acute malaria, referrals to alternative clinics can take days and severely compromise a patient's survival.

6. Protection and security

In the presence of chronic insecurity development of self-protection strategies by HWs and the communities they serve has been essential to maintaining a shadow healthcare system in eastern Burma and ameliorating, if not eliminating, restrictions on access.

A common theme has been the frequent relocation of mobile clinics because of security concerns. HWs reported being in a constant state of alert, ready to move at short notice. Clinics often do not keep medicines on site or identify clinics as a result of fear of interference by the Tatmadaw, including looting or destruction of medical supplies:

> *The security isn't good and we can't set up our clinic permanently at a place because the enemy can come at anytime, so we don't dare to keep the medicine in our clinic. For example we would hide our medicine and our food in the containers and keep those in the forest. We hide everything including the medical notebooks.*
>
> —Female, 24yrs, Karen

For mobile healthcare teams HW's concern is to not to be found by the Tatmadaw with medical supplies or identified as HWs. In insecure areas HWs dress like villagers and do not carry medicines:

> *We have to worry for ourselves. If we went to some village wearing our organization's shirt they would know who we are and we can be arrested. I would be suspected more if I wore a shirt.*
>
> — Male, 36yrs, Karen

The mobile nature of some HW's work incurs risks of encountering Tatmadaw on route between villages or IDP camps. A standard security strategy is to avoid roads frequented by soldiers:

> *We travel in the forest ways and inform each other about when the Tatmadaw are around the area. In order to communicate easily our team leaders carry a walkie-talkie with them… We could go on the public ways, but we don't for security.*
>
> — Female, 23yrs, Karen

On occasions when soldiers are in a village HWs will either wait for them to leave, or visit at night:

> *Sometimes the Tatmadaw forces set up at the village in daytime, we dare not to go at that time. But if there was a patient in need of care we went into the village at night when the forces have gone back to their base. We do not dare to go in the daytime because we would definitely be arrested.*
>
> — Male, 30yrs, Karen

It was clear from interviews that village leaders and villagers play an important role in security of HWs, providing information via walkie-talkie on the security status of a particular area:

> *We get the information from the villagers. We mostly get the information from the village leaders.*
>
> — Male, 36yrs, Karen

The collective sense of purpose and commitment by the community to ensure safe access to health care was evident across interviews, and well illustrated by one HW:

> *We all cooperate together not only HWs, but regional community leaders, village leaders, and regionally based health organizations. Our first concern and priority is patient security and safety. If the place is insecure we all cooperate together to move to a secure place.*
>
> — Female, 39yrs, Karen

Aside from protection strategies used by the HWs, the very nature of the health organization's mobile teams and establishment of mobile clinics is an adaptive response to the IDP population they serve. Local civilian survival strategies involve fleeing an area at short notice or more permanently migrating to a safer area. HWs are flexible to these survival strategies – in essence they go where their target population goes. A HW who started work in 1995 as a home visitor in eastern Burma explained:

> *Even when the villagers are running away, the HWs will follow them to take care of them.*
>
> — Female, 38yrs, Karen

In more secure areas protection strategies include behavior that might not be considered appropriate by external observers, including paying bribes to cross borders or checkpoints. However, in the absence of government recognition or approval, health organizations and their HWs have adopted these practical strategies to secure at least partial access to areas of eastern Burma where international humanitarian actors have largely been absent. As quotations indicate, however, HWs cannot entirely overcome the impact of insecurity on access.

7. HW's views towards reporting violations

The majority of HWs expressed interest in monitoring incidents of violence and threats against health care, despite reporting an improvement in security since the ceasefires in Karen State. In particular they perceived benefits to reporting:

> *It would be good to report because then everyone in the world will know what the Burmese government is doing.*
>
> — Female, 21yrs, Karen

HWs perceived ceasefires as fluid and unstable, and frequently mentioned the importance of collecting information more broadly on human rights abuses inflicted on communities where they work:

> *It would be really great if we can report what happens to our ethnic community… we have all faced difficulties and had hard times.*
>
> — Female, 24yrs, Karen

All HWs had a broad understanding of human rights concepts, but no specific knowledge of international norms of respect and protection for their work. All expressed strong interest in receiving training and knowledge of these norms and their application. HWs were keen that information collected be used by their organizations to better understand the nature of the problem and responses:

> *We want to report it to our health organizations to let them know what is happening in our area. Then, they will be able to think about how to solve some of these problems and suggest to us how to do it.*
>
> — Male, 36yrs, Karen

Positive perceptions towards the value of reporting were, however, tempered by identification of barriers to reporting. HW's main concern was security and the risk of being stopped by the Tatmadaw in possession of a reporting form:

> [When asked about the security of carrying a reporting form in the field:]
>
> *I'm worried for the security, it is concerning with my life. I'm worried that I might be killed or arrested.*
>
> — Female, 21yrs, Karen

However, HWs felt there were ways of collecting information that do not jeopardize security, such as making entries in clinical notebooks and keeping reporting forms at clinics or safe areas. They viewed security as an issue to be addressed rather than a factor precluding data collection.

8. Discussion

In this study we used in-depth interviews to examine types of attacks and interferences experienced by local HWs in the chronic conflict setting of eastern Burma – and consequences for access to health services. HW's protection strategies and their views towards the reporting of violations were also explored. The research demonstrates that in the past decade HWs experienced, or have knowledge of, direct and indirect attacks on and interferences with their work including physical attacks, arrests, delays in providing care, confiscation of medical supplies, and destruction of clinics. These acts disrupted and have impeded access to health care, including disease control programming. This pattern has implications for further understanding the links between increased morbidity and mortality, particularly for vulnerable populations such as women and children (Teela et al., 2009) and warrants further research. Our findings point to the important role that community cohesion plays in local HW's protection strategies, and the value HWs place on documentation to increase international focus on the challenges to health delivery in chronic conflict settings, such as eastern Burma.

Respondents' descriptions of physical violence, arrests and attacks on clinics represent violations of the principles of respect and protection of health care in conflict as required by both the Geneva Conventions (1949), Additional Protocols (1977) and human rights law. In the case of eastern Burma's low intensity chronic conflict the findings suggest that non-violent interferences including demands for bribes, and confiscation of medical supplies represent the most frequent form of interference, in some areas an 'everyday' challenge to HW's caregiving. In particular, non-violent impediments to access add to the climate of insecurity resulting from a history of violent attacks on civilians generally, with profound impacts on access and the right to health.

Availability and accessibility of health facilities, goods and services is critical in times of conflict and guaranteed under a right to health framework set forth in General Comment No. 14 (CESCR, 2000). Destruction of clinics, delays reaching patients, and interruptions to, or cessation of, core health programs including disease-control programming all undermine availability and accessibility of health care in eastern Burma. We found the climate of fear and insecurity created by the military regime and ethnic tensions to be a major factor undermining the right to health. The link between insecurity and decreased accessibility including HW's ability to visit patients or carry essential medicines was particularly evident. The right to health obliges states to ensure access to health care on a non-discriminatory basis. Our findings highlight the role of ethnic identity in the Burmese army's targeting of HWs and their caregiving practices – premised on a policy of discrimination aimed at undermining essential services to ethnic populations in eastern Burma.

In exploring coping and security strategies of HWs working in conflict this paper supports identification of "community collectivity" as a key strategy (Sousa and Hagopian, 2011), whereby attacks and interferences with health care are framed as affecting the whole community rather than individual patients or HWs. Strong emergent themes were innovative mobile health provision and the community's role in supporting secure health delivery. Practices included localized security surveillance and working with HWs to move patients to safer locations. The absence of international humanitarian assistance has created a resilient ethnic community-centered approach to health care provision, without which HWs would be unable to securely access patients. Such strategies may be more culturally appropriate and effective in remote rural settings where there is an absence of international humanitarian support. Health organizations and their HWs in the absence of government approval have adopted practical strategies to reach in-need populations. This has included using clandestine border crossings and paying bribes to secure access to areas where international agencies have been largely absent.

For international humanitarian aid agencies, principles of impartiality and humanitarian space are central to health care provision (Egeland et al., 2011). In this study the assumption that HWs are connected to, or support, armed groups has undermined their role as impartial caregivers and is central to their vulnerability and targeting by the Tatmadaw. This phenomenon deserves more attention and future research should attend to the ways in which local provider's actual or perceived affiliation can influence vulnerability. The principle of respect is a powerful discourse to adopt in humanitarian contexts, more so than "neutrality", and should be the founding principle for education of parties to a conflict to respect and protect local health services. The study suggests the international community must take greater steps to protect the caregiving of local HWs who share ethnicity or other affiliation with armed groups.

While seeking a better understanding of the types of attacks and interferences experienced by HWs in a chronic conflict setting, we sought to gage opinions on HW's role with respect to monitoring and reporting violations. Our findings suggest HWs want to bear witness to violations, thereby increasing international pressure on perpetrators. Documenting incidents of actual or threatened violence to health care has been identified as dependent on extensive resources (Din et al., 2012). Our research suggests, subject to security, HWs on the frontline could contribute to filling the present gap in documentation, alongside traditional human rights monitoring.

The findings from this paper, along with other formative research, informed development of an incident reporting form for recording attacks on, or interference with health care in eastern Burma. This qualitative study assessed the utility of such a reporting form from the perspective of HWs, and informed question domains covering non-violent interferences such as confiscation of medicines and intimidation.

This study explored the climate of vulnerability undermining HW's ability to ensure basic health care to already vulnerable

populations, at the core of which has been a pervasive risk of attack and ethnic discrimination in access to care. The latter emerged as a tactic of domination and subjugation by the state over eastern Burma's ethnic communities. Despite a rapidly changing political landscape in Burma the experiences of HWs described in this paper provides evidence of the systematic and substantive impact of violence and conflict on health care provision and access. The findings highlight the importance of ongoing documentation, in this setting and others.

9. Limitations

The findings are subject to a number of limitations. Participants were limited to those HWs returning from Burma to Mae Sot or Umphang for training, and may not represent all HWs in the area. The small sample limits generalizability of the findings, even within the context of eastern Burma. In addition, participants have vulnerabilities, experiences and opinions, which may not be representative of local HWs in other contexts. Separate research is warranted in alternative settings. However, the strength of this study was the use of in-depth interviews and the iterative nature of data collection and analysis, which allowed a rich understanding and insight into HW's experiences.

HWs were purposively selected from organizations supporting eastern Burma's ethnic communities. In the interviews the perpetrator profile was primarily limited to the Tatmadaw, with occasional references to DKBA's involvement in generalized fighting. Health organizations affiliated with the government were not available at this study site to speak to the role of NSAGs as potential perpetrators in this context, and this may have led to gaps in the data. An additional limitation is the 10-year time frame over which participants' recollected experiences. This timeframe was identified in collaboration with health organizations as the best period to consider, ensuring breadth and richness of experience. However, experiences captured may not be reflective of the current situation post ceasefire and could have also resulted in recall bias.

10. Conclusions

This study demonstrates the existence and types of attacks on, and interferences with, health care in eastern Burma. The data showing physical violence, arrests of HWs, and attacks on clinics are consistent with findings in other conflict-affected settings. The results go further, identifying a climate of vulnerability in which a history of attacks, chronic insecurity, and targeted discrimination have been important factors in the reduction and denial of health care access to minority communities in this setting. The paper shows how mobile methods of health care delivery and a model of community-centered care and collectivity are vital to HW's security and resilience. Documentation of violations emerged as something that HWs viewed as fostering accountability for perpetrators and empowering HWs. To our knowledge this is the first peer-reviewed study to obtain these insights within the setting of Burma. We suggest further studies be undertaken in other chronic conflict-affected settings where, to date, there is little research on violence and interferences with local health providers and services. Finally, these qualitative findings suggest that an incident reporting form would further enhance HW's sense of empowerment and provide an evidence base from which to promote and secure better respect and protection for HWs across a range of humanitarian settings. Validation and implementation of our incident reporting form will, it is hoped, lead to wider reporting of attacks and interferences with health care in eastern Burma.

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