Background paper prepared for the Education for All Global Monitoring Report 2011

*The hidden crisis: Armed conflict and education*

**Impact of Conflict on Children’s Health and Disability**

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2010

This paper was commissioned by the Education for All Global Monitoring Report as background information to assist in drafting the 2011 report. It has not been edited by the team. The views and opinions expressed in this paper are those of the author(s) and should not be attributed to the EFA Global Monitoring Report or to UNESCO. The papers can be cited with the following reference: “Paper commissioned for the EFA Global Monitoring Report 2011, The hidden crisis: Armed conflict and education”. For further information, please contact efareport@unesco.org.
Impact of Conflict on Children’s Health and Disability
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Abstract

Armed conflicts have changed in complexity and nature over the past few decades magnifying health challenges for children. Conflict impacts children’s health in four important ways. First, conflict-driven displacement increases child death and injury, mainly through increased susceptibility to infectious disease from unsanitary living conditions. A case study on Southern Sudan illustrates that conflict reduces sanitation, clean water, and health services making it difficult to stop the spread of neglected tropical diseases, such as visceral leishmaniasis and trachoma. Second, children have a higher risk of food insecurity and malnutrition during times of conflict. The country case of Chad illustrates that food insecurity is heightened by the resettlement of displaced people leading to higher rates of malnutrition. Third, children, especially girls, are subjected to an increased risk of sexual violence from armed combatants during conflict. Rape has been a prevalent component of armed conflict in the Democratic Republic of Congo causing increased risk of psychological trauma, unwanted pregnancy, and susceptibility to sexually transmitted infections. Fourth, conflict induces long-term physical and psychological disability in children, especially among child soldiers. In Afghanistan, rehabilitation and educational interventions are critical in improving the health outcomes of children.

Introduction

Contemporary armed conflicts are frequently complex, with protracted duration, and fought by irregular armed combatants. Armed conflict involves the intentional use of illegitimate force with arms or explosives against a person, community or state (Geneva Declaration 2008) and is generally characterized by at least 1,000 conflict-related deaths per year. Armed conflict is the fourth leading cause of death for people between the ages of 15 and 44 worldwide (Geneva Declaration 2008).

Armed conflict now involves massive civilian casualties and injuries. The 20th century revealed dramatic increases in violence against civilians during armed conflict. 19% of casualties were civilians during World War I, and nearly half of World War II casualties were civilian. In the 1980s and 1990s, the majority of casualties (80%) were civilians (Bhatta, Yousafozai et al. 2010). In addition to increased prevalence of violence against civilians, conflict is also inextricably linked to poverty. 90% of the 150 conflicts post-World War II have occurred in developing countries (Pollard, Finn et al. 2005). Asia and Africa have the largest concentration of violent conflict where both regions account for over 75% of global conflicts (Project Ploughshares 2009). Many Sub-Saharan African countries are poverty stricken during times of peace, and armed conflict deepens civilian vulnerability, diminishes safety networks, and fosters impoverishment.
Armed conflict is not only responsible for directly killing and injuring civilians through infliction from weapons, but it also has widespread indirect health effects. Indirect deaths and injury are usually caused by the degeneration of social, economic, and health conditions in conflict-affected areas (Geneva Declaration 2008). Conflict creates increased vulnerability to infectious diseases and malnutrition because of diminished access to clean water, inadequate food and shelter, and a lack of access to basic and obstetric health care. Conflict and heightened insecurity in resource-strained areas adds pressure to already fragile health systems though the closing of urban and rural health clinics. Violent attacks on medical facilities severely limit civilian access to health services (UNICEF April 2009). In recent years, it is estimated that at least 740,000 people have died directly or indirectly each year from armed conflict (Geneva Declaration 2008). Studies reveal that between 3 and 15 times as many people die from indirect causes of armed conflict for every person who dies from direct violence (Geneva Declaration 2008). Elevated mortality rates persist even after the conflicts end, and recovery is especially protracted in places with inadequate health infrastructure. Indeed, illness, injury, and death often occur in the months and years after the conflict ceases. Over time, victims of armed conflict can experience detrimental long-term physical and mental disabilities.

Children are especially vulnerable during times of conflict, and they are impacted in debilitating ways. It is estimated that over 1 billion children under the age of 18 live in areas affected by conflict, which is almost one-sixth of the world population (UNICEF April 2009). Children living in conflict-affected areas are more likely to be poor, malnourished, and unhealthy (UNICEF April 2009). The average under-age-five mortality rate in conflict-affected countries is 81 per 1,000 live births, and this mortality rate is much greater compared to a world average of 72 deaths per 1,000 live births (UNICEF April 2009). There are four main ways a child’s health is impacted by armed conflict. First, conflict-driven displacement increases child death and injury, mainly through increased susceptibility to infectious disease from unsanitary living conditions. Second, children have a higher risk of food insecurity and malnutrition during times of conflict. Third, children, especially girls, are subjected to an increased risk of sexual violence from armed combatants during conflict. Fourth, conflict induces long-term physical and psychological disability in children, especially among child soldiers.

This paper describes the direct and indirect impact of conflict on children’s health using selected data from studies over the past two decades. A literature review of journals was done to compile information and recent supplemental data was gathered from Web searches. Specific cases from the Democratic Republic of Congo, Chad, Southern Sudan, and Afghanistan are described to illustrate the four main ways conflict impacts children.

I. Conflict-Related Displacement & Infectious Disease

Armed conflict forces many civilians to be displaced as refugees across national borders or displaced in their country as “internally displaced persons” (IDPs). As of December 2008, there are an estimated 26 million conflict-driven IDPs in the world (IDMC April 2009) and roughly half are children (United Nations 2007). During conflict and displacement, people are forced to flee homes and often seek refuge in overcrowded and unsanitary camps or settlements. These camps are plagued by unsafe drinking water and increased threat of infectious disease and epidemics (Connolly and World Health Organization, 2005). Based on 2004 data, 529 million people lack access to clean drinking water in 33 conflict-affected countries, which is about half of the 1.1 billion people without safe drinking water globally (UNICEF April 2009). In addition, 1.4 billion people living in conflict-affected areas do not have access to sanitation facilities, which represents about half of the 2.6 billion people globally without toilets or other forms of
improved sanitation (UNICEF April 2009). Since 1990, the most commonly reported causes of death among refugees and IDPs during early influx into camps are diarrheal disease, respiratory infections, measles, and other infectious diseases (Khan and Laaser 2002). Poor living conditions in camps do not measurably improve over time and periodic lethal epidemics are the norm.

Displaced children have higher mortality rates than children in host populations and in non-migrant populations due to increased environmental vulnerabilities. Unaccompanied children, mostly orphans, living in Goma refugee camps during the 1990s Rwandan conflict had a 20- to 80-fold greater mortality rate compared to the pre-conflict under–age-five mortality rate (Bustreo, Genovese et al. 2005). These deaths were due to diarrheal diseases transmitted by fecal contamination of Lake Kivu, the primary drinking water for refugees.

The long-term effects of forced migration on child health and mortality are less clear. While conflict-driven migration increases child mortality in the short-term, some evidence reveals that over time forced migration does not significantly increase under-age-five mortality compared to host populations. In fact, there might be an eventual reduction of war migrants’ increased mortality rates after migration (Khawaja 2004; Singh, Karunakara et al. 2005). An eventual mortality reduction may be caused by the migrants’ ability to adapt to a new environment and integrate into their new life (Avogo and Agadjanian 2010). However, other studies linked forced migration with enduring high mortality rates: a study of former refugee and non-refugee households in Rwanda showed lower survival rates among children of refugee women (Verwimp and van Bavel 2005).

Southern Sudan: Neglected Tropical Disease Vulnerability

Civil war began in Southern Sudan in 1983 and conflict continued until the Comprehensive Peace Agreement was signed in January 2005 establishing home rule for the southern states under the Autonomous Government of Southern Sudan. However, some border areas were not resolved by the peace agreement and fighting continued to displace people. The more than two decades of fighting has killed more than an estimated 2 million people, and another 4 million Southern Sudanese have been internally displaced from the civil war, comprising one of the largest internally displaced populations in the world (IDMC April 2009). Conflict continues to displace people, and it is estimated that Southern Sudan had 390,133 newly internally displaced people from January to September 2009, which was twice as many displaced in 2008. Another 60,000 people were displaced during the first four months of 2010 (IDMC May 2010). Unfortunately, the January 2011 referendum on Southern Sudan succession is a potential trigger for increased violence between the north and south.

Armed conflict and subsequent displacement and higher rates of infectious disease impact more children in Southern Sudan, which is partly due to their larger population numbers. The population in Southern Sudan is one of the youngest in the world, with an estimated 21% of children aged less than five-years-old and 49% under the age of fifteen (NSCSE May 2004). The fact that there is a greater proportion of children living in Southern Sudan is troubling when it also has one of the highest burdens of neglected tropical diseases (NTDs) in the world. According to the World Health Organization, NTDs are primarily infectious diseases and have high transmission rates in poverty-stricken areas usually characterized by unsanitary conditions. Most are spread by insects and others are spread by contaminated water or food and are considered neglected because they do not attract public and media attention. The major NTDs in Southern Sudan are visceral leishmaniasis (VL), human African trypanosomiasis (HAT), onchocerciasis, dracunculiasis (Guinea worm), lymphatic filariasis (LF),
schistosomiasis, trachoma, and soil-transmitted helminths (STH) (Richer, Ruiz et al. February 2008). VL and HAT are major causes of death in endemic areas of Southern Sudan. The other NTDs usually cause chronic disability and morbidity.

Conflict has particularly hampered control over VL in Southern Sudan. VL epidemics are due to many factors, such as malnutrition, mass migration, and poverty (Reithinger, Brooker et al. 2007). VL is caused by the parasite *Leishmania donovani* and is endemic in Southern Sudan (Reithinger, Brooker et al. 2007). The onset of VL is sudden and severe and usually leads to quick death: If left untreated, anemia develops, organs fail, and secondary infections lead to a high mortality rate (Chappuis, Sundar et al. 2007). Medical diagnosis of VL is difficult, because it requires the confirmation of the parasite identified from aspirates of the spleen, bone marrow, lymph node, or liver (Richer, Ruiz et al. February 2008). Since diagnosis and treatment of VL require health facilities and medical equipment, VL is difficult to control in conflict-affected areas like Southern Sudan with diminished health infrastructure.

Trachoma is another serious NTD in Southern Sudan exacerbated by armed conflict. Trachoma results from an eye infection with *Chlamydia trachomatis* and can ultimately lead to irreversible blindness (Resnikoff, Pascolini et al. 2004). It is spread from person to person through infected eye discharge. The disease is associated with limited water access, poor sanitation, and overcrowded living conditions. If left untreated, trachoma may progress to trachomatous trichiasis (TT), where one’s eyelashes turn inwards to rub on the eyeball, leading to blindness (Richer, Gatpan et al. February 2008). The progression to TT usually occurs later in life, but Southern Sudan has a high prevalence of early-onset TT among children. Children aged one to fourteen years have an overall TT prevalence of 1.5% (King, Ngondi et al. 2008), which exceeds the WHO indicator of public health importance of TT at a rate of at least 1% in adults older than 15 years (Solomon, Zondervan et al. 2006). Interestingly, girls are more afflicted with TT compared to boys at all ages starting from age one to age fourteen (Ngondi, Reacher et al. 2009), and trachoma and TT are two to four times greater in women compared with men (Courtright and West 2004). Treatment includes eyelid surgery for TT, antibiotics for active trachoma, building of pit latrines, and provision of clean water sources for face washing and sanitation (Richer, Gatpan et al. February 2008). The lack of sanitation, clean water, and health services in Southern Sudan and other conflict-affected areas makes it difficult to stop the spread of NTDs like VL and trachoma.

II. Child Malnutrition

Malnutrition is major cause of child mortality in low income countries and is exacerbated by conflict (Bhatta, Yousafzai et al. 2010). It is estimated that there are 98.5 million undernourished children below the age of five living in conflict-affected countries, which is more than two-thirds of the 143 million children under five who suffer from undernutrition globally (UNICEF April 2009). Conflict-driven malnutrition is eventually lethal in an overwhelming number of children, but its severe effects can be seen in children’s stunted growth. High rates of growth stunting have been observed in conflict areas around the world. A community-based survey in regions affected by Zapatista conflict in Chiapas, Mexico found a high prevalence of growth stunting (54.1%), in children age five and younger (Sanchez-Perez, Hernan et al. 2007). Children in conflict zones in Afghanistan and Angola experienced a similar prevalence of stunting at 63.7% and 57.3%, respectively (Assefa, Jabarkhil et al. 2001; Agadjanian and Prata 2003). These malnourished children in conflict areas are at risk for poor school and work performance and greater likelihood of death.
Child malnutrition can also increase susceptibility of disease and infection through compromised immune function. Disease and malnutrition have a detrimental impact on the physical and mental development of children. It is estimated that 200 million children under the age of five fail to reach their full cognitive potential (Engle, Black et al. 2007; Grantham-McGregor, Cheung et al. 2007). It is estimated that 70% of Afghan children have iodine and iron deficiency, and over half of these children are anemic which affects their cognitive and physical development (Loewenberg 2009). A malnourished child who survives to adulthood and who suffers from inadequate development may have poor education outcomes and a diminished capacity for work.

Conflict can impact the ability of children and families to attain adequate nutrition in multiple ways. First, conflict disrupts the regional environment and economy. Conflict can disrupt crop cultivation, food production and market availability, and can inflate food prices, thus thwarting the capacity of families to purchase food products. Conflict also changes the family environment and interactions, which impact child nutrition. Malnourished and distressed mothers may not care for and feed their children effectively. For example, conflict-induced stress in lactating mothers may diminish breast milk production (Grajeda and Perez-Escamilla 2002), resulting in their babies being unable to feed and attain adequate levels of nutrients.

Community involvement in the health of children and public awareness of the importance of adequate nutrition and weight may be good avenues of intervention to explore. In a study where community volunteers were selected and trained to monitor children’s growth in their respective villages, susceptibility to malnutrition decreased throughout the monitoring process. The weight of children aged five years and younger was taken every month for two years in the Democratic Republic of Congo: the median percentage of children between the age of 12 to 59 months that were highly susceptible to malnutrition decreased from 4.2% in 2004 to 2.8% in 2005 (Bisimwa, Mambo et al. 2009). This data suggests that having children weighed at the community level may not only improve growth monitoring of children, but may also positively impact health outcomes of children in armed conflict situations.

Chad: Food Insecurity and Malnutrition

Chad has experienced intermittent armed conflict since its independence from France in 1965. Throughout the past two decades, the main source of fighting occurred between the government of Chad and southern factions and rebel groups. The most recent surge of conflict occurred in 2008 when rebel forces attempted an unsuccessful coup d’état in the capital of Chad, N’Djamena, which resulted in several hundred deaths and displacement of tens of thousands. Although the governments of Chad and Sudan signed the Dakar Agreement in 2008 to cease support of each other’s rebel groups, there has not been a parallel process for Chad’s internal conflict with rebel groups (IDMC April 2009).

The recent surges in fighting displaced hundreds of thousands of people. There are an estimated 170,000 internally displaced Chadians as of December 2009, and Chad has an estimated 350,000 refugees from Sudan and the Central African Republic as of December 2009 (USAID March 2010). Internally displaced and refugee populations impact Chadian communities and affects local agriculture, livestock rearing, and other sustenance activities (USAID March 2010). Disastrous environmental conditions depleted crop harvests and foods shortages were worsened by the resettlement of displaced people. Low levels of 2009/2010 rains resulted in a 34% reduction in grain production from 2008/2009 harvests. Grain-eating birds and other pests exacerbated the poor harvest conditions, and a lack of water resulted in poor livestock rearing. A February 2010 European Commission’s Humanitarian Aid
Office (ECHO) assessment observed that Chad had high food prices and low food availability throughout the marketplace. Regrettably, food insecurity may also be an important risk factor for increased sexual risk-taking among women in order to attain enough food to survive (UNICEF 2008). Further data is needed to explore detrimental coping mechanisms that may be further deleterious to health outcomes.

Conflict-affected populations are unable to engage in traditional coping mechanisms for food shortages resulting in higher rates of malnutrition. Poor cereal harvest is estimated to have affected at least two million people in Chad, leaving approximately 18% of the total population food insecure (USAID March 2010). Of the 2 million, 800,000 people will be highly food insecure from April 2010, which is more severe than the typical June to October hunger season. Food insecurity is heightened by the resettlement of displaced people and leads to inadequate nutrition among displaced and host populations. In other words, displaced and non-displaced people in Chad are prone to malnutrition, which is not a result of seasonal fluctuations in food supply (Guerrier, Zounoun et al. 2009). In Eastern Chad, IDPs had a prevalence of malnutrition of 20.6% among children aged 6 to 59 months (Guerrier, Zounoun et al. 2009). On the whole, Chad has estimated acute malnutrition rates between 20 and 29 percent, which is above the WHO emergency threshold of 15 percent (USAID March 2010). Reducing malnutrition rates in conflict-affected areas like Chad will require comprehensive infrastructure improvements and stability that will be able to deal with stressors, such as mass human displacement.

III. Sexual Violence

Sexual violence against women and girls is prevalent in conflict areas (Cottingham, Garcia-Moreno et al. 2008), and adolescent girls are said to the first group victimized ruing armed conflict (UNICEF April 2009). Displaced women and girls are vulnerable to rape and sexual abuse at all times during their travels and while in camps and settlements. Violent and multiple rapes can cause women and girls to have a traumatic gynecologic fistula, a rupture between the reproductive tract of a woman or girl and her bladder and/or rectum (The ACQUIRE Project April 2006). Gynecologic fistulas primarily results in fecal and/or urine incontinence. This serious, painful, and chronic disability may go untreated due to lack of reproductive health services. Sexual violence can have other long-term impacts, such as unwanted pregnancies and increased risk of sexually transmitted infections (UNICEF April 2009).

Conflict increases vulnerability to inadequate obstetric and gynecological (OB/GYN) health needs of women (Garcia-Moreno, Jansen et al. 2005), but high demand for women’s health services often go unmet (Bosmans, Cikuru et al. 2006). A lack of health services for women may increase adverse maternal and infant health outcomes, exacerbate the severity of pregnancy and childbirth complications, and may fail to treat rape-related physical trauma. A lack of proper nutrition and safe water supplies, in addition to a lack of emergency obstetric health care contributes to increased maternal mortality (Cottingham, Garcia-Moreno et al. 2008). There are varying documented levels of obstetric and gynecological health services for women in refugee camps. Some studies reveal that maternal and neonatal mortality and morbidity are considerably lower than those in the host population (Van Damme, De Brouwere et al. 1998; Hynes, Sheik et al. 2002). Maternal and neonatal health outcomes depend on a multitude of factors, including the types of populations affected, the nature of the conflict, importance given to humanitarian emergency aid, levels of skilled medical personnel and equipment (Cottingham, Garcia-Moreno et al. 2008). The need to address women’s health needs and unsafe abortion practices in countries emerging from conflict have been reported (Belton and Maung 2004; Sandbaek 2004; Cleland, Bernstein et al. 2006).
Democratic Republic of Congo: Violence Against Girls & Women

The Democratic Republic of Congo (DRC) has been in conflict since independence from Belgium in 1960. War intensified in 1998 creating mass population displacement, collapse of the health system, and food shortages. Despite the signing of a peace accord in December 2002, violence and fighting continue. The 1998-2002 conflict and its aftermath in DRC were responsible for 5.4 million deaths out of a total population of 57.5 million people (2008). The majority of deaths were caused by preventable and treatable diseases (and not by direct violence), such as malaria, diarrhea, and malnutrition (Coghlan, Ngoy et al. 2007). Armed conflict exacerbates the humanitarian challenges that already exist in the country, and the conflict continues: recent fighting in DRC’s Equateur province has created 191,000 refugees and IDPs from the area since October 2009 (UN OCHA 2010). At the end of 2003, an estimated 30,000 children needed to be demobilized from armed forces (2008).

The DRC has one of the highest rates of rape in the world (UNAIDS December 2009). Sexual violence in the DRC has been a prevalent component of armed conflict that began in 1996 to intimidate, punish, and control people (Bartels, Scott et al. 2010). In a 2006 retrospective cohort study of women who requested post-sexual violence care at Panzi Hospital in Bukavu, South Kivu Province, the majority of sexual violence was in the form of gang rapes that often happened at night in individual homes (Bartels, Scott et al. 2010). Prior studies done at Panzi Hospital found that women who reported experiencing a gang rape were also more likely to report psychological stress compared to women who reported being assaulted by a single assailant (Bartels, Scott et al. 2010). Between June 2007 and June 2008, 6,766 cases of rape were officially reported in the DRC, a fraction of the total number of rapes that actually took place, and 43% of the reported cases involved children (Humphreys 2009). Girls were the ones primarily violated, but boys were also victims. This physical trauma may result in psychological trauma and long-term cognitive disability.

Sexual slavery was reported commonly among young, single women, and women who were sexual slaves had a high risk of becoming pregnant (Bartels, Scott et al. 2010). Most pregnant sexual violence survivors have no other choice but to keep and raise their children, since abortion is illegal in the DRC and adoption is rarely considered a viable option (Bartels, Scott et al. 2010). Being identified as a rape victim is socially stigmatized, and raped women have diminished marriage opportunities and often struggle as single parents (Bartels, Scott et al. 2010). This situation may impede rape survivors from attaining education goals and economic support from a spouse, further increasing her vulnerability to poverty and health disabilities.

Almost half of the population in DRC is under fifteen (48%), and one-fourth of children under the age of eighteen are orphans or vulnerable children (Congo (Democratic Republic). Ministère du plan. 2007). This situation places children at great risk of being recruited in armed groups and subjected to sexual violence. Many reports of rape and sexual violence have surfaced in the DRC, and there have been claims that extensive rape in eastern DRC fueled the HIV epidemic (Lawday 2002). But, evidence to support the notion that rape increased prevalence of HIV infection in the DRC is lacking (Spiegel, Bennedsen et al. 2007). There is a need for more time-sensitive data on the impact of conflict on rates of HIV infection. One study looked at seven Sub-Saharan African countries (including DRC) and found that conflict, forced migration, and wide scale rape did not increase prevalence of HIV infection nor did it show that refugees spread HIV in host communities (Spiegel, Bennedsen et al. 2007). Assessing HIV infection due to rape is difficult during conflict when there are high rates of civilian death and forced displacement, which can reduce the incidence of HIV infection and opportunities where individuals are
exposed to HIV. In addition, victims are generally reluctant to report and to talk about their experiences.

IV. Child Soldiers & Disability

Children are more vulnerable to recruitment in armed groups as a result of conflict-driven social upheaval and magnified poverty. Internally displaced children separated from their families are at high risk in being abducted and coerced to join armed groups. The Internal Displacement Monitoring Centre found reports of recruitment of internally displaced children by government forces and non-state armed groups in 13 countries in 2008 including Afghanistan, Chad, DRC and Sudan (IDMC April 2009). Children may volunteer to join armed groups with the hope of having more access to food and shelter and increased protection from being killed themselves (Coalition to Stop the Use of Child Soldiers 2010).

A child soldier is defined as under the age of 18 and is part of armed group in any capacity. Child soldiers are usually forced to do hazardous jobs and hard labor and can become combatants, domestic servants, or subjected to sexual violence (IDMC April 2009). While girls and boys are both susceptible to recruitment in armed groups, anecdotal evidence reveals that they have different roles. Girls are frequently abducted and forcibly recruited into armed groups; they may be raped and forced to endure other sexual violence. Girls who are raped and survive may also be more stigmatized when they return to their home communities (Coalition to Stop the Use of Child Soldiers 2010). Boys who are recruited into armed groups may be taught to use firearms and fight, and may be trained to participate in terrorist attacks or become suicide bombers, in blatant violation of international law. Boys and girls may be equally subjected to domestic servant tasks, such as gathering firewood, preparing food and carrying water.

The protracted nature of conflicts exposes child soldiers to range of physical injuries and resultant disability. Landmines are weapons used in conflict, which disproportionally harm children and women in great numbers. Child soldiers are unfortunately the ones to explore known minefields and are killed or permanently disabled from landmine detonations. Children living in camps and settlements may explore their surroundings and unknowingly pick-up landmines inquisitively for further examination. Physical rehabilitation and medical care is crucial for children exposed to landmines: they often require repeated surgery, new prostheses, and lifestyle adjustments. Child soldiers are more vulnerable to conflict-related disability. While millions of children die in conflict, three times as many are injured or permanently disabled (Pearn 2000). There is an estimated 4 million children with physical disabilities, and conflict is the leading cause of disability in children (Bhatta, Yousafzai et al. 2010). Children are more likely than adults to be permanently disabled by landmines. For example, in Afghanistan, 1,000,000 children have conflict-related disabilities many of which were caused by exploding landmines (Coleridge 1999).

Long-term psychological and educational support and healthcare of former child soldiers is important to reintegrate them back into society. Child soldiers often lose families, have no support network and any way to make a living, and need to learn life skills and economic self-sufficiency after the conflict ends. Assistance programs are critical for children after their release from armed groups so that they can help transition from military to civilian life and securely integrate into society (UNICEF April 2009). Reintegration services for former child soldiers include health care, especially reproductive health services sensitive to sexual violence; mental health services; reunification with family members; peace and conflict-resolution education; vocation and life skills education and training; and legal support.
involving access to justice, personal identification, and property rights issues (UNICEF April 2009). The reintegration process requires long-term commitment and needs to be comprehensive to help children become healthy and functioning adults (UNICEF April 2009). However, fear of stigmatization and other obstacles prevented tens of thousands of children from registering for reintegration services. For example, girls associated with armed groups may be shunned from their communities because of their rape or subsequent pregnancy. Reintegration programs may better serve girls though providing confidential support so that their associations are not revealed to prevent discrimination and stigma by community members (UNICEF April 2009).

Children’s Mental Health

Experiencing traumatic events during armed conflict impacts the mental health of children. Children who experienced conflict-related trauma and met criteria for post-traumatic stress disorder (PTSD), an anxiety disorder that develops after exposure to psychological trauma, were often associated with poor school achievement and memory impairments (Elbert, Schauer et al. 2009). Indirect effects of armed conflict, such as losing caregivers and support networks are also damaging to a child’s well-being and healthy development (Barenbaum, Ruchkin et al. 2004). Conflict often destroys informal social networks for children and disrupts community structures, and children may be forced to be self-sufficient (UNICEF April 2009).

Educational investments and interventions may be important for child mental health in post-conflict situations. Studies in Bosnia and Herzegovina, Eritrea, and Sierra Leone reveal investments in educational interventions for children affected by conflict can help improve their psychosocial wellbeing (Wolff, Tesfai et al. 1995; Dybdahl 2001; Gupta and Zimmer 2008). Specifically, among children displaced by war in Sierra Leone, therapeutic trauma discussions and informal education interventions such as story-telling, singing, jumping rope, role-play activities, playing team sports, writing exercises, and drawing pictures helped to reduce psychological distress associated with exposure to conflict-related violence (Gupta and Zimmer 2008).

Mental health is not only influenced by trauma, but also existing environmental and social factors, such as poverty, social marginalization, malnutrition, interpersonal interactions and other daily stressful conditions. Altering the social environment that is worsened by conflict will improve mental health outcomes and the capacity to recover from enduring hardships from conflict (Miller and Rasmussen 2010). Conflict trauma can affect pregnant women and the subsequent emotional health of their children (Engel, Berkowitz et al. 2005). Both violence and maternal depression are risk factors that impair child development and mental health (Walker, Wachs et al. 2007).

Social discrimination has been shown to be more predictive of mental health outcomes than conflict-related trauma for both perpetrators and victims of violence. Child soldiers in Sierra Leone who wounded or killed others had feelings of anxiety and hostility, but it was their experience of feeling stigmatized in their communities (considered a form of chronic daily stress) that mediated the subsequent development of psychiatric symptoms (Betancourt, Simmons et al. 2008). Victims of sexual violence may also feel stigmatized, and young, single girls may experience diminished opportunities for marriage following a rape. Finding ways to reduce social stigma can mediate the impact of conflict-related violence on mental health outcomes of child soldiers (Betancourt, Agnew-Blais et al. 2010).
Afghanistan: Mental Health & Disability Needs

Afghanistan has experienced over 30 years of war and instability. In 1978, rebel groups began attacks on the Afghanistan government and captured the capital city in 1992. Rival factions battled for control of Kabul, and in 1994, the Taliban emerged to control the country. A U.S.-led coalition invaded Afghanistan and removed the Taliban from power in 2002 and since 2006, conflict has spread and intensified. It is estimated that 1/3 of the population is internally or externally displaced (United Nations 2002). Afghanistan has one of the worst child mortality rates in the world, with children under-age-five dying at a rate of 191 per 1,000 live births (United Nations 2007).

In a large-scale study of mental health in three areas of Afghanistan, children, caregivers, and teachers were interviewed. Exposure to multiple experiences of violence was correlated with PTSD and depression symptom development in Afghan children (Panter-Brick, Eggerman et al. 2009). 64% of children reported exposure to traumatic events with around 24% having substantial psychological distress in the wake of their most frightening lifetime event (Panter-Brick, Eggerman et al. 2009). Girls had poorer mental health relative to boys: girls had twice the risk for predicted psychopathology compared with boys and more reported symptoms of depression (Panter-Brick, Eggerman et al. 2009). Two significant predictors of poor mental health outcomes in Afghan children is exposure to multiple trauma and caregiver mental health. Much of the trauma reported by children was not directly related to conflict exposure. Instead, domestic violence, accidents, and medical treatments were often rated as more traumatic than conflict-related violence. Parent-child interactions and caregiver mental health impacts the mental health outcomes of children. Mental health interventions need to provide support to caregivers to reduce negative psychological outcomes in children (Dawes and Flisher 2009). Further evidence in Bosnia revealed the positive impact that psychosocial support intervention for mothers has on the mental health outcomes of their children (Dybdahl 2001).

Environmental factors and social interventions should not be overlooked in addressing mental health issues of Afghan children. Schools may be potential sites for intervention to improve mental health outcomes. There is an initiative in Afghanistan that trains teachers to recognize and help provide basic psychological support to conflict-affected children and encourages education officials to reduce previously common harsh physical punishment given to students (Kostelny 2006). In post-conflict situations, children and adolescents involved in constructive activities that contribute to their communities also promotes their mental health (Dawes and Flisher 2009).

Children physically disabled through armed conflict may have health and educational concerns that will decrease ability to thrive and live healthy lives. From January to December 2009, more than 1,000 children were directly killed or injured from improvised explosive devices, landmines, air strikes, and rocket attacks, which is an increase from last year due to heightened insurgency (UN April 2010). Of this number, 55 children were killed and 199 injured in mine accidents, and the vast majority (205) were boys (UN April 2010). Children that do survive mine explosions have more serious disabling injuries than adults. Few children will receive prostheses to keep up with continued growth of bones, and even those with prostheses may not be able to walk long distances and are instead dependant on using wheelchairs. Since many schools in Afghanistan do not have facilities for disabled children, physically disabled children have been deprived of receiving an education. There are an estimated 196,000 disabled school-aged children in Afghanistan and only 22.4% of them attend regular government schools. Over 75% of these children with disabilities have not attended school for any length of time. Many of these children drop out of school due to the lack of adapted materials and facilities, insensitive teachers, or peer discrimination (Handicap International 2005). The Swedish committee for Afghanistan
is implementing a rehabilitation program to provide disability services to Afghans that focuses on physical rehabilitation. In March 2010, the beginning of the Afghan school year, 304 children with disabilities were included into mainstream schools and received training in the rehabilitation program (Verwoerdt June 2010).

Conclusion

Armed conflict directly and indirectly impacts the short- and long-term physical and mental health of children. While the impact of conflict on children is similar across many different settings, boys and girls are sometimes exposed to different forms of health-related risks. While boys and girls are both recruited into armed groups, girls are significantly subjected to sexual violence. Girls also have higher rates of mental health disturbances after experiencing conflict-related trauma. These sex differences are important considerations when implementing intervention and treatment strategies.

In summary, armed conflict impacts children in four important ways. First, conflict-driven displacement increases child death and injury, mainly through increased susceptibility to infectious disease from unsanitary living conditions. Conflict frequently exacerbates existing precarious health systems resulting in unsafe drinking water, crowded camps and settlements, and inadequate nutrition. These undesirable living conditions ultimately increase child mortality and morbidity. Second, children have a higher risk of food insecurity and malnutrition during times of conflict. Specifically, food insecurity is heightened by the resettlement of displaced people leading to higher rates of malnutrition. Malnutrition is then correlated with high mortality rates, stunted growth, and further susceptibility to disease. Third, children, especially girls, are subjected to an increased risk of sexual violence from armed combatants during conflict. Girls and women who experience sexual violence can have severe health consequences from genital trauma, sexually transmitted infections, pregnancy, and psychological trauma, which frequently go unaddressed when health services are disrupted from a conflict (Luckham, Ahmed et al. March 2001). Fourth, conflict induces long-term physical and psychological disability in children, especially among child soldiers. Children who are victims of violence, witness violence against others, and experience conflict-related hardships, such as a lack of food, shelter, and health services can undergo physical and mental suffering. Rehabilitation and educational interventions are critical in improving the mental health and functionality of children who experience trauma.
Works Cited


IDMC (May 2010) "Sudan: Rising inter-tribal violence in the south and renewed clashes in Darfur cause new waves of displacement."


NSCSE (May 2004) "Towards a baseline: Best estimates of social indicators for Southern Sudan."


Richer, M., G. Gatpan, et al. (February 2008) "Neglected Tropical Diseases and Their Control in Southern Sudan: Situation Analysis, Intervention Options Appraisal and Gap Analysis."

Richer, M., J. Ruiz, et al. (February 2008) "Neglected Tropical Diseases and Their Control in Southern Sudan: Situation Analysis, Intervention Options Appraisal and Gap Analysis."


UNAIDS (December 2009). "16 Days of Activism: The forgotten victims of conflict in the Congo."


USAID (March 2010) "Chad - Complex Emergency: Situation Report #2, Fiscal Year 2010."


Verwoerd, F. (June 2010) "Case Study: Supporting learners with disabilities."
