Summary Brief 1

BRANCH
Bridging Research & Action in Conflict Settings
for the Health of Women & Children

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Women's and Children's Health in Conflict Settings: The Current Landscape of the Epidemiology and Burden

As part of a series that discusses findings from the BRANCH Consortium's research on sexual, reproductive, maternal, newborn, child and adolescent health and nutrition (hereafter "WCH") in conflict settings, this brief sets the stage by describing the current research landscape of the epidemiology of WCH in conflict settings and the burden of conflict on WCH. This brief also highlights gaps in the current WCH landscape, suggesting potential opportunities for further research and next steps to fill in the research gaps.

This brief is intended for local NGOs, governments, international organizations, UN agencies, funders and donors, health care workers, communities, and other key humanitarian actors who can all play a part in understanding and bettering WCH in conflict settings.

Introduction

The nature of war and conflict has changed over the past decades. Conflict now spans across country borders, with many having complex international affiliations going beyond states and resulting in threats to international peace and security.[1,2] These intrastate conflicts are also more protracted or longer, averaging 20+ years.[3]

International Humanitarian Law (IHL), or the law of armed conflict, regulates the conduct of war

and aims to limit the impact of armed conflict by restricting and regulating means and methods of warfare, as well as protecting persons not participating in the hostilities. However, IHL concentrates mostly on the *direct* effects of war, namely traumatic injury, both physical and mental, and death due to bombs and bullets during combat operations. Whereas war also generates *indirect* effects through the destruction of the essentials of life, including food, water, shelter, medical care, and increased insecurity resulting in suffering and death.[4]

The fundamental challenges confronting humanitarian and health services in the face of conflict have to do with an increasing disregard of IHL, with the boundaries between combatants and civilians becoming further blurred leading to higher rates of morbidity and mortality. In modern wars, civilians have been shown to have higher rates of morbidity than soldiers.[5] In instances of embedded combatants in urban settings, as well increasing occurrences of attacks on civilians, healthcare workers and facilities, much larger numbers of vulnerable women, newborns, children and adolescents may be disproportionately and severely affected than otherwise.[4,6]

Giving Voice to the Communities

There is a need for the humanitarian health community to understand and respond to challenges that arise from a disregard for IHL.[4] However this group represents just a fraction of those working in such settings. It is important to bring in diverse players into these discussions, in particular **the inclusion of voices rarely heard is imperative** – such as communities directly and indirectly afflicted by conflict, women, children and adolescents, combatants, and workers providing ongoing aid and services amidst everchanging insecurity and chaos.[7,8]

Local insight into what is needed and why, elicited through meaningful community engagement and participation in priority-setting, is crucial. Such engagement and participation would include listening to local concerns and understanding their priorities. Testing and evaluation of models for effective community engagement in humanitarian health programming would also be useful.

Each conflict is unique. Still, there are trends that are particularly important in assessing the challenges and risks facing WCH in conflict settings.[5]

Conflict and WCH: The Current Research Landscape

Approximately one-fifth of the world's population of women and children are living in countries experiencing armed conflict. In 2017, approximately 420 million children under the age of 18 years were living in areas affected by conflict.[9] Of the 20 countries with the highest neonatal mortality rates, 19 are in conflict.[1,10,11]

It is well-known that food security is threatened during conflict, and previous studies have demonstrated elevated levels of acute malnutrition in children. Modern-day famines mostly take place in countries in conflict.[12] Elevated levels of chronic malnutrition in children are also common and more pronounced among children living in the proximity of more severe conflict.[6]

The burden of mortality (and morbidity) as a result of armed conflict has been a topic of considerable debate. Estimates of direct and indirect deaths associated with armed conflict have been difficult to generate as accurate data are rarely available, particularly for women, newborns, children and adolescents.[6,13,14] Also, the effects of conflict on women of childbearing age might, in turn, have additional effects on their children. In some cases, conflicts during which women are at a substantially high risk of dying can have important implications on the number of orphans.[15]

Still, estimates suggest that, in general, indirect effects of conflict (due to the destruction of shelter, food and water supplies, health care and other essentials of life) are markedly larger than the direct effects of conflict (injury and/or death due to physical violence during conflict).[6,15] **The consequences of indirect effects of conflict are also pronounced among women, newborns, children and adolescents**,[5,15] **and may be exacerbated when security concerns jeopardize access to humanitarian aid.**[7,8] For example, exposure to armed conflicts is associated with an increased prevalence of anxiety disorders, such as post-traumatic stress disorder, and depression among children,[16,17] adolescents[18] and women[19] both during and after conflicts.

Conflict and Orphanhood

The BRANCH Consortium compiled new evidence on the harmful effects of armed conflict on non-combatant populations, in particular those children who are orphans due to conflict.

Losing a parent has well-documented consequences for the health and human capital of the child, and losing a mother is particularly detrimental.[20,21] Mortality among women of childbearing age was shown to increase by 21% (on average), and **children 0–15 years-old exposed to armed conflict were, on average, 6% more likely to be orphans when living near any conflict and 42% more likely to be orphans when living near conflicts of highest intensity**, highlighting a link between these events, distinctions between types of conflicts and the need for more focus on this neglected group.[5,15]

Forcibly Displaced Populations Due to Conflict

Of the approximately 71 million people who were forcibly displaced in 2019 due to conflict, the majority were women and children, making this group a largely affected population.[10,22,23] While many moved to other countries, most remained in their countries as internally displaced people (IDPs). Of the total number of IDPs globally, women and girls represent approximately half and children approximately 40 per cent.[10,22,23] Both displaced and non-displaced populations experience elevated risks of morbidity and mortality in conflict settings.[7] The risk of mortality for women, newborns, children and adolescents due to indirect effects also increases substantially in response to nearby conflict, with more intense and chronic conflicts associated with greater mortality increases.[6]

The Missing Pieces in the Current Research Landscape

The measurement of the number of deaths among women, newborns, children and adolescents due to conflict is complex and subject to much speculation. Global efforts to compile data on violent events and fatalities are also limited and compounded by a **lack of gender and age disaggregated information on indirect mortality.**[15]

While some information exists, **there is a need for better data on the burden of conflict for women, newborns, children and adolescents,**[6] **including better empirical information about the direct and indirect effects of armed conflict on morbidity and mortality of women of childbearing age, who are rarely involved in the fighting.**[24] Moreover, the extent to which conflict leaves surviving children as orphans could benefit from further exploration.[15]

Statistics on Internally Displaced Persons (IDPs)

The **quality of statistics on IDPs is often poor** due to challenges in counting mobile populations, differences in statistical definitions of this group (e.g. the classification of nomads or of children born to IDPs are often unclear), overall blurred definitions as to what defines an IDP, poor measurement around the time that displacement ends (e.g. return migration, urban settlement, death), and incentives to both under- and over-report.[22,25] The conditions for IDPs may also differ greatly depending on the living conditions they are faced with and any associated vulnerabilities, which are important to understand to make the statistics more accurate and meaningful.[6]

Even so, there are obvious data gaps within the area of WCH in conflict settings where research is clearly needed. **There is virtually no information on the burden of conflict-related stillbirths, on conflict-related exposures and health outcomes among orphans, school-age children and adolescents, or on the intergenerational health effects of conflict.**[24] **Data on adolescents - boys and girls ages 5-17 years - is sparse to non-existent, highlighting a major gap for this age group.**[6,26-33]

It is also important to point out additional areas in relation to WCH for which research exists, but with limited evidence:

While the **impact of conflicts on morbidity from infectious diseases can be profound, there remains a lack of data regarding effective preventive and therapeutic responses.**[26] Disrupted water and sanitation systems,[27] crowding, mobility and breakdown of immunization services within conflict zones lead to an increase in risk of serious infectious outbreaks.[28]

Although physical injuries among women, children and adolescents from direct conflict as well as unexploded remnants and ordnance can be catastrophic, the **magnitude of the burden from such physical injuries is largely unknown.**[29]

The evidence on the **impact of conflict on non-communicable diseases (NCDs) remains limited, while the importance of this issue is rising**.[30]

Mental health effects of conflict have been widely documented but remain inadequately addressed in most conflict settings, especially for post traumatic stress disorder, depression and anxiety disorders.[27]

Sexual violence against women, children and adolescents in conflict also remains at extremely high levels,[9,31,32] with variability between conflicts and major challenges in obtaining reliable population-based data.[33]

The **number of adolescent marriages and fertility patterns, and the implications of this during conflicts could also warrant greater understanding**.[23]

All of these issues are further complicated by the current COVID-19 pandemic and warrant further investigation.

We are also only beginning to understand the immediate versus long-term effects of conflict on WCH in modern conflict settings.[8,24] For example, much more is known about the mental health impacts of war on soldiers[22,28] than on the long-term mental health consequences of war and conflict on women and children.[34]

There is a need for more data on WCH in conflict areas. Some of these gaps in the literature are likely attributable to the (safety and security) challenges of collecting such data and information in conflict settings,[6,7] and the many constraints on humanitarian health responders' capacities and time. Other gaps in the literature may reflect actual intervention gaps in the field. While data collected post-conflict could help fill in some of these gaps, impacts on displaced populations would still be absent, including those that perished.

Next Steps – Filling in the Research Gaps

A stronger global commitment to improve data collection is critically needed to better understand the issues facing conflict-affected women, children and adolescents and mitigate the impact of armed conflict on their health. A gender lens should be incorporated into the analysis and interpretation of the data, alongside the disaggregation of data by key variables, such as sex and age.

Innovative, near-real-time reporting systems could take advantage of technological advances, such as satellite and remote imaging methods, cloud-based health and other databases, and could provide information that is vital for crafting a rapid response to urgent needs in conflict settings. These systems could also improve both the amount of data captured as well as the quality and relevance of the data and provide a basis for ensuring greater privacy, data protection, and other ethical and security-related safeguards.[35] The systems could also include a knowledge translation component to promote and facilitate the translation of evidence into global, regional and local policies and programs.

Data collection within refugee and IDP camp-like settings remains important and the development of methods to address the needs of populations dispersed in non-camp settings is of urgent concern. Well-designed small-scale local surveys (e.g. SMART surveys) as well as the development of novel methods to collate information across existing routine information systems could be of particular utility.[36]

Consideration could also be given to **task-sharing strategies that actively support aspects of research**, alongside community-level implementation, that speak directly to the local humanitarian and service delivery landscape.[8] For example, community volunteers could play an important role in data collection as well as monitoring and evaluation

activities, in addition to service provision, particularly through the adaptation of simple, low resource methods and newer technologies to capture data (such as through hand-held digital devices). Information collected by community workers can be collated and linked to existing information systems in such settings, which could lead to more rapid feedback and action.[8]

In other cases, it may be possible to **integrate varied types of information into a comprehensive understanding of needs and capabilities**.[36] Collating and analysing data from diverse information sources from remote sensing technologies, field and community settings, camps, mobile units and referral facilities, could allow more refined analysis and ultimately more effective interventions.

Finally, a **common set of routine indicators for WCH in conflict settings** could help facilitate improved coordination and collective evaluation of humanitarian strategies in these complex environments.[8]

Conclusions

Addressing WCH in areas of armed conflict is a central challenge to traditional humanitarian response structures and institutions. The epidemiology suggests that the nature of this challenge can take the form of direct effects due to injuries inflicted by armed violence and indirect effects secondary to the destruction of shelter, food and water supplies, and health care. Although efforts to prevent and mitigate harm in these unstable environments must navigate a complex security and logistical landscape, effective interventions are indeed possible. However, the available evidence also documents the **urgent need to improve these intervention strategies, particularly through enhanced data collection and analytic capabilities**. The gaps in our knowledge are many, however, there remain substantial opportunities to expand and continually adapt health intervention strategies to the diverse and rapidly evolving nature of violent conflict around the world.[8,37] Priority also needs to be given to certain WCH interventions (*see Summary Brief 2 which further highlights this need, and the accompanying Summary Brief 3 which provides a framework for prioritizing and packaging key WCH interventions in conflict settings*).

Political and security dimensions of the humanitarian health response to conflict are critical in shaping WCH in different conflict contexts. **Strategies that pertain to WCH must adapt to the ever-changing violent conflict in different political and security settings globally, with insights sought from diverse fields.**[4,15] In some instances, the disregard of, and lack of accountability to, IHL has also led to the politicization of humanitarian response.[4] The use of humanitarian assistance as a political tool can also have resounding damaging effects on the community's perception of, and trust in, lifesaving WCH services.[4] A global commitment to improve WCH outcomes must more effectively confront the various political and security challenges affecting areas faced with violent conflict.[4,15]

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Resources

Below is a comprehensive list of the briefs in this series that address the impact of conflict on sexual, reproductive, maternal, newborn, child and adolescent health and nutrition:

> ***BRANCH Consortium Summary Brief 1***
> ***Women's and Children's Health in Conflict Settings: The Current Landscape of the Epidemiology and Burden***

BRANCH Consortium Summary Brief 2
Women's and Children's Health in Conflict Settings: The Current Evidence and Guidance Landscape for Identifying and Implementing Priority Interventions

BRANCH Consortium Summary Brief 3
Women's and Children's Health in Conflict Settings: Prioritizing and Packaging Health Interventions - Deciding What to Deliver, When and How

BRANCH Consortium Summary Brief 4
Women's and Children's Health in Conflict Settings: Barriers and Facilitators to Delivering Effective Services

BRANCH Consortium Summary Brief 5
Women's and Children's Health in Conflict Settings: Key Messages and Next Steps

For more information about the current landscape of the epidemiology of WCH in conflict settings and the burden of conflict on WCH, please refer to these resources from the Lancet Series on women's and children's health in conflict settings.