



## EDITORIALS

# Pregnant women in war zones

Forgotten victims, killed by violence and by a lack of available care

A D Akol *research fellow*<sup>1</sup>, S Caluwaerts *gynaecologist*<sup>2</sup>, A D Weeks *professor of international maternal health*<sup>1</sup>

<sup>1</sup>Department of Women's and Children's Health, University of Liverpool, Liverpool L8 7SS, UK; <sup>2</sup>MSF Operational Centre, Brussels, Belgium

Death from violent conflict is a little acknowledged cause of maternal mortality. In times of war, the focus is usually on the male soldiers—yet an estimated 140 000 women die in conflict every year.<sup>1</sup> An unknown proportion of these women are pregnant at the time of death, adding to the estimated 303 000 women already expected to die annually in pregnancy and childbirth.<sup>2</sup>

War aggravates an existing high maternal mortality rate by destroying health services and preventing access to them. Health services may even become targets, as seen in the recent massacre of 11 Médecins Sans Frontières (MSF) health workers in Syria<sup>3</sup> and the bombing of Kunduz trauma hospital in Afghanistan.<sup>4</sup>

There is also increasing evidence of violence directed specifically against pregnant women. A British war surgeon, David Nott, witnessed a heavily pregnant woman being targeted in Syria. His haunting x ray image of a fetus deliberately shot dead in a mother's womb by a sniper has been widely shown (figure).<sup>5</sup> There are reports of women being shot while giving birth in Nigeria,<sup>6</sup> and women having their wombs eviscerated to remove and kill fetuses, breasts cut off, and genitalia mutilated in the Democratic Republic of Congo.<sup>7</sup> Those lucky to survive are at risk of post-traumatic stress disorder, which negatively affects maternal functioning, parenting, and compliance with medical therapies.



X ray image of fetus shot in the head during the Syrian conflict

(Image: Syria Relief)

Women are also targeted through the use of rape (90% of which is gang rape) as a weapon of war.<sup>8</sup> And, to exacerbate the problem, sexual health services are generally non-functioning, preventing access to contraception, safe abortion, and treatment for sexually transmitted disease.<sup>9</sup> The cumulative effects of these problems can be devastating for women in war zones—and in turn take their toll on their children, families, and communities.

In international humanitarian law, pregnant women should be protected.<sup>10</sup> But this rarely happens, and militant perpetrators are difficult to hold to account. All too often the only option is for women to attempt the dangerous escape from the war zone and seek refuge in other countries.

### What of those left behind?

Of course, the final answer must lie in political settlements to resolve the root cause of the conflict. Only peace will allow a true resumption of effective reproductive health services. Warring parties should also be educated about international humanitarian law to tackle the underlying ignorance.

But while the conflict continues, care needs to be provided. For pregnant women, this means a safe place for birth, with availability of comprehensive emergency obstetric and neonatal care. A lack of antenatal care means that women often attend with advanced disease on top of untreated anaemia, malnutrition, and infestations. The challenges of the complex clinical picture are equalled only by the challenges of the setting. The use of makeshift clinical areas with irregular electricity and limited supplies means that health workers must be creative and adaptable. They rely largely on stable, low cost supplies, including antihypertensives, magnesium sulphate, misoprostol, antibiotics, and iron supplements.

Anaesthetic drugs and blood for transfusion are critical life savers but logistically challenging. A functioning operation theatre is also vital. Though most battlefield operations are trauma related, many women need caesarean sections or removal of ectopic pregnancies. Of over 18 000 operations done “in the field” by staff from MSF’s Operational Centre in Brussels in 2014, 21% were caesarean sections and 6% other gynaecological or obstetrical procedures (personal communication).

Death from violent conflict is a major cause of maternal mortality globally but is often overlooked. Reports into global maternal mortality barely mention it,<sup>11</sup> and advocates for maternal health are often silent on the issue, presumably not seeing it as a women’s health problem. But the scale of the problem should challenge this view. As the classic obstetric causes of maternal death such as haemorrhage and pre-eclampsia reduce, so the relative importance of the indirect and contributory causes rise. In the United Kingdom violence had become one of the most common causes of maternal death, but a national campaign has led to a reduction in deaths.<sup>12</sup> The same now needs to happen with conflict deaths globally. It will require publicity, as well as international advocacy, but urgent action is critical for the health of every woman caught up in conflict.

Competing interests: We have read and understood BMJ policy on declaration of interests and have no interest to declare.

Provenance and peer review: Commissioned, not externally peer reviewed.

- 1 Goldstein JS. *Fatalities from war and other violence by age and gender 1990*. In: *War and gender*. Cambridge University Press, 2003:401.
- 2 Alkema L, Chou D, Hogan D, et al. United Nations Maternal Mortality Estimation Inter-Agency Group Collaborators and Technical Advisory Group. Global, regional, and national levels and trends in maternal mortality between 1990 and 2015, with scenario-based projections to 2030: a systematic analysis by the UN Maternal Mortality Estimation Inter-Agency Group. *Lancet* 2016;387:462-74.pmid:26584737.
- 3 Davison J. Syrian planes strike hospitals in rebel northwest, killing 11—MSF. *Reuters* 2015 Aug 14. <http://www.reuters.com/article/mideast-crisis-syria-msf-idUSL5N10P47520150814>.
- 4 Associated Press. Afghan hospital bombing: Pentagon to pay compensation to families. *Guardian* 2015 Oct 11. <http://www.theguardian.com/us-news/2015/oct/11/kunduz-pentagon-to-pay-compensation-over-afghan-hospital-bombing>.
- 5 Malm S. Syrian snipers target unborn children. *Daily Mail* 2013 Oct 19. <http://www.dailymail.co.uk/news/article-2466574/War-Syria-Snipers-target-unborn-children-chilling-competition-win-cigarettes.html>.
- 6 Richards V. Boko Haram attack: woman “killed while giving birth” during Baga massacre. *Independent* 2015 Jan 15. <http://www.independent.co.uk/news/world/afrika/boko-haram-attack-woman-killed-in-labour-during-baga-massacre-9979680.html>.
- 7 Jones A. Mass rape in the Congo: a crime against society. *The Nation* 2008 Dec 23. [http://www.alternet.org/story/113782/mass\\_rape\\_in\\_the\\_congo%3A\\_a\\_crime\\_against\\_society](http://www.alternet.org/story/113782/mass_rape_in_the_congo%3A_a_crime_against_society).
- 8 Brown C. Rape as a weapon of war in the Democratic Republic of the Congo. *Torture* 2012;22:24-37.pmid:23086003.
- 9 Urdal H, Che C. War and gender inequalities in health: the impact of armed conflict on fertility and maternal mortality. *Int Interact* 2013;39:489-510. doi:10.1080/03050629.2013.805133.
- 10 Krill F. The protection of women in international humanitarian law. *Int Rev Red Cross* 1985;249. [www.icrc.org/eng/resources/documents/article/other/57jmfj.htm](http://www.icrc.org/eng/resources/documents/article/other/57jmfj.htm).
- 11 Say L, Chou D, Gemmill A, et al. Global causes of maternal death: a WHO systematic analysis. *Lancet Glob Health* 2014;2:e323-33. doi:10.1016/S2214-109X(14)70227-X.pmid:25103301.
- 12 Knight M, Brocklehurst P, Neilson J, et al. *Saving lives, improving mothers’ care—lessons learned to inform future maternity care from the UK and Ireland Confidential Enquiries into Maternal Deaths and Morbidity 2009–12*. National Perinatal Epidemiology Unit, 2014.

Published by the BMJ Publishing Group Limited. For permission to use (where not already granted under a licence) please go to <http://group.bmj.com/group/rights-licensing/permissions>