## Living in a 'war zone' linked to delivery of low birthweight babies

Evidence for impact on other complications of pregnancy less clear

Mums-to-be living in war zones/areas of armed conflict are at heightened risk of giving birth to low birthweight babies, finds a review of the available evidence published in the online journal **BMJ Global Health.** 

But the evidence for any impact on the rate of other complications of pregnancy is less clear.

People living in war zones are under constant threat of attack, which has a detrimental effect on their mental and physical health. Their food and water supplies are often disrupted, and healthcare provision restricted, all of which can take a toll on the health of expectant mothers, say the researchers.

To explore this further, the research team looked for studies on the impact of war on pregnancy and found 13 relevant studies, dating back to 1990. These involved more than 1 million women from 12 countries that had experienced armed conflict, including Bosnia, Israel, Libya, and Iraq.

Analysis of the data showed that mums-to-be living in war zones/areas of armed conflict were at heightened risk of giving birth to underweight babies.

But there was less evidence suggesting any impact on rates of miscarriage, stillbirth and premature birth, and few studies looked at other outcomes, such as birth defects.

The researchers point to some caveats. All nine of the studies which looked at the potential impact of war on birthweight had some design flaws.

And five failed to account for potentially influential factors, or provided only limited data on exposure to conflict, although this may reflect the difficulties of collecting data in war-torn areas, suggest the researchers.

None of the studies defined the meaning of war or armed conflict, so making it hard to differentiate between the short and long term impact of various aspects of warfare, they add.

Nevertheless, the most convincing evidence suggests that rates of low birthweight rise among women living in war zones/areas of conflict, they conclude. And this matters, they say.

"The long term health implications of low birthweight are significant, because individuals are at increased risk of [ill health] and [death], and will require increased medical care throughout their lives," they emphasise.

In light of their findings, they call on healthcare professionals to monitor pregnant women living in war zones more carefully, although they acknowledge the difficulties of doing this in war zones.

But they say: "This will only be possible if warring parties are committed to following the Geneva Convention, refrain from attacking healthcare facilities and workers, and are adequately resourced.

"Until this happens, women and their infants will be at continued risk of adverse outcomes in pregnancy."

And it is just as important for clinicians in countries not affected by armed conflict to carefully monitor pregnant women who have been displaced by war, they say.