services. An awareness of biases in published statistics when interpreting birth weight specific trends in neonatal, postneonatal, and infant mortality rates, is required.

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Long term effect of abuse

The issue of August 2, 2000 of the *Journal of the American Medical Association* is an annual theme issue devoted to the subject of violence and the abuse of human rights. Of most immediate relevance to paediatrics is a paper on stress responses in women who were abused as children (Christine Heim and colleagues. *JAMA* 2000;**284**:592–7).

The authors studied 49 women volunteers (aged 18–45 years) in Atlanta, Georgia. Twelve had no history of childhood physical or sexual abuse and were psychiatrically normal, 13 had been abused in childhood and were currently depressed, 14 had been abused and were not depressed, and 10 were depressed but had not been abused. All underwent a psychosocial stress protocol (10 minutes of preparation and 10 minutes of speaking and performing mental arithmetic in front of an audience) during which heart rate was recorded and blood samples were obtained (from previously inserted catheters) for measurement of plasma concentrations of adrenocorticotrophic hormone (ACTH) and cortisol. Women who had been abused and were depressed had significantly higher ACTH, cortisol, and heart rate responses than controls. Those who had been abused but were not depressed had higher ACTH responses than the two non-abused groups but similar cortisol and heart rate responses. Depression without a history of abuse had little effect on response to stress.

Women who have suffered physical or sexual abuse as children have an exaggerated response to psychosocial stress, especially if they are currently depressed. The effects of abuse are longstanding.

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