Infant Mortality in Germany (2008–2012) – Lower in the Former German Democratic Republic?

Original title: Säuglingssterblichkeit in Deutschland (2008–2012) – niedriger im Osten?

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**Background:** German infant mortality is ranked near the median of European countries. In Germany infant mortality is significantly higher in the western states compared with the newly formed eastern German states, formerly GDR. This is often used as reason for a call for structural requirements and minimum caseload for the care for very low birth weight infants.

**Method:** Neonatal and infant mortality were calculated for each of the 16 German federal states (11 western states) for the years 2008–2012 based on data from the German federal statistical office.

**Results:** Considerable variations were found for the neonatal (1.34 ‰–3.61 ‰, total Germany 2.31 ‰) and the infant (2.38 ‰–5.20 ‰, 3.47 ‰) mortality. The rate of stillborn infants (3.56 ‰) was equal to infant mortality. A lower neonatal mortality in the eastern states compared to the western states (1.62 ‰ versus 2.44 ‰, p < 0.0001, Chi-squared test) could not be confirmed for preterm infants with birth weight less than 1500 g (1000-1499 g: 22,8 ‰ versus 24,0 ‰, n.s.; 500–999 g: 146 ‰ versus 145 ‰, n.s.). In eastern states stillbirth was significantly more frequent in preterm infants with birth weight 500–999 g (p < 0.0001, Figure). Overall combined stillbirth and neonatal mortality showed no difference between the western and eastern states (5.45 ‰ and 5.29 ‰, respectively, n.s.; infants less than 500 g birth weight were excluded because in Germany stillbirth is counted as a miscarriage). Combined stillbirth and neonatal mortality in infants with birth weight 500–999 g was significantly higher in the eastern states (391 ‰ versus 315 ‰, p < 0.0001). The average number of preterm infants per perinatal centre and federal state had no influence on state specific neonatal mortality.

**Discussion:** The rate of stillbirths equals to infant mortality rate. This seems to be a major starting point for improving the results of perinatal medicine. The use of overall neonatal mortality as a measure of mortality of very low birth weight infants is not appropriate. The significantly higher rate of stillborn infants 500–999 g in the eastern states needs explanation. Two possibilities might be considered: a) the procedures for recording stillborn infants were different in the western and eastern states and b) the quality of perinatal medicine differed.

**Limitations:** The main limitation is a high rate of deceased infants without registered birth weight (for the neonatal mortality data: 19.7 % western states, 3.2 % eastern states).

**Conclusion:** Infant mortality was not lower in the eastern states after stillborn infants were taken into account. It is suggested to take stillborn rate into account whenever infant mortalities of different countries are compared. Considerable variation of neonatal mortality is persisting throughout Germany despite introduction of structural requirements and minimum caseload since 2005. Lower infant mortality in the eastern states and subsequent implications drawn from are not supported by the nationwide data from the German federal statistical office presented.