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An epidemiologic analysis of SIDS and other deaths as part of the Safe Passage Study in the Northern Plains of the United States and the Western Cape of South Africa

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Abstract

Purpose: To report the infant mortality cause of death and demographic data from sudden infant deaths [SIDS] and known causes of deaths [KCOD] from the live births of a prospective group of pregnant women from the Northern Plains (NP) of the United States and the Western Cape region of the Republic of South Africa (SA).

Methods: Between August 2007 and January 2015, 10,088 women with 11,892 pregnancies were recruited in the Western Cape areas of (SA); and from five sites in the (NP) [North and South Dakota] of the United States, including two American Indian (AI) Reservations.

Results: There were 6,783 SA pregnancies and 4,735 NP pregnancies resulting in 10,727 live births, from which there were 122 infant deaths (88 SA & 34 NP). Forty-five of the Replace it with the 122 deaths were predischarge and 11 (all SA) were listed as unclassified (lack of an autopsy or scene investigation prevented classification of a cause of death). The bulk of the analysis was conducted on the remaining 66 infant deaths. The SA/NP Infant Mortality Rates (IMR's) were 13.0/7.1. The SA/NP percentages of SIDS deaths was 26-39%/15%. There were 28 SIDS and 38 Known Cause of Death (KCOD). The SA/NP SIDS rates were 3.39-5.01/1.06. The SA/NP KCOD percentages of deaths were 61%-74%/86% (SA/NP KCOD rates were 7.96-9.58/6.12)[the SA percentage and rate data is given as a range since 11 unclassified cases could have been variably assigned]. Bed-sharing was reported in 68% of the one-month interviews and 88% of the SIDS DSI's.

Conclusions: The SIDS rates and percentages were significantly higher for SA vs. NP and accounted for the significantly higher SA IMR vs. NP IMR. The Study SA IMR is much lower than unofficially reported IMR's in the Western Cape. Bed-sharing was very common and not significantly different between SIDS and KCOD.

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