SPONTANEOUS MISCARRIAGES AND INFANT DEATHS AMONG FEMALE FARMERS IN RURAL SOUTH AFRICA

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Objectives Limited information exists on occupational exposures and reproductive outcomes in African women. Associations of demographics and occupational factors with spontaneous miscarriages and infant deaths among agricultural women in KwaZulu-Natal, South Africa were examined.

Methods This cross-sectional study described and compared reproductive outcomes among 911 women in agriculture on the irrigation scheme and dry lands of the Makhatini Flats, KwaZulu-Natal, South Africa. Associations between demographics, agricultural activities, physical load, pesticide spraying and self-reported “spontaneous miscarriage” and “infant death” were explored.

Results Women (N=887) reported 4796 pregnancies, 322 spontaneous miscarriages and 137 infant deaths. Adjusting for age, education, and length of recall of pregnancy, spraying pesticides during the first 3 months of a pregnancy was associated with spontaneous miscarriage both in the irrigation scheme (OR 2.8, 95% CI 1.1 to 7.2) and in the dry lands (OR 2.5, 95% CI 1.2 to 5.6). Infant death was associated with owning one’s farm or working on a family farm among irrigation scheme women (OR: 2.3, 95% CI 1.2 to 4.4) and working >10 years among dry lands women (OR 2.1, 95% CI 1.1 to 4.3). Weeding was inversely associated with infant death among irrigation scheme women (OR 0.4, 95% CI 0.2 to 0.7).

Conclusions Women reporting spontaneous miscarriage were more likely to report spraying pesticides during pregnancy and those reporting infant death were more likely to own their farms and report working longer in agriculture.