Infant mortality linked to subsequent risk of stillbirth finds new US study

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Women whose first pregnancy ended in infant death are significantly more likely to have a subsequent stillbirth finds new research published today (21 September) in *BJOG: An International Journal of Obstetrics and Gynaecology*.

Black women experienced the highest rates of stillbirth in subsequent pregnancy, the study by US researchers from the University of South Florida and the University of Rochester found.

Infant mortality accounts for an estimated 5.75 million deaths annually worldwide and it is estimated there are 3.2 to 3.3 million stillbirths annually worldwide.

This new study looked at 320,350 women who had two singleton pregnancies between 1989 and 2005. Of these, 2,483 women (0.78%) had experienced infant death in the first pregnancy, while the remaining 317,867 women had an infant in their first pregnancy who survived the first year of life.

Within the study population, 1,347 cases of stillbirth occurred during the second pregnancy, representing a stillbirth rate of 4.2 per 1,000.

Mothers with previous infant death (defined as death of a child within the first year of life) were compared to those whose infant survived their first year.

Adjusted hazard ratios (AHR) were generated to assess the association between infant mortality in the first pregnancy and stillbirth in the second pregnancy.

The study found that overall women with prior infant death were three times as likely to experience stillbirth in their subsequent pregnancy (AHR=2.91).

White women with previous infant death were nearly twice as likely to experience subsequent stillbirth, compared to white women with prior infant survival (AHR=1.96). Black women with previous infant death were more than four times as likely to experience subsequent stillbirth, compared to their black counterparts (AHR=4.28).

The risk of stillbirth among women with and without a history of infant death, neonatal death, and post-neonatal death by race was also reviewed and the researchers found that black women had the highest rates of stillbirth in subsequent pregnancy. Looking specifically at neonatal death , black women were more than nine times as likely to experience stillbirth as white women (AHR=9.46).

The study also found that women with infant death in the first pregnancy were more likely to be black, obese, and smoke during pregnancy.

When comparing birth weight of infants associated with the second pregnancy, infants born to mothers with prior infant death were, on average, 293 grams smaller than those born to mothers whose previous infant survived their first year of life.

In addition, pregnancy complications were almost twice as frequent among mothers who experienced infant death during their first pregnancy, as compared to those whose infants survived their first year of life (10.91% versus 6.66%).

Dr Hamisu Salihu, Professor in the Department of Epidemiology & Biostatistics, University of South Florida, College of Public Health and principal investigator said:

"Our findings show that there are large disparities in infant mortality rates between white and black women and highlight the need for improved public health efforts to reduce infant mortality.

"It is important that clinicians note the potential risk for subsequent stillbirth following infant mortality when they speak with patients in the period preceding their next pregnancy."

Professor Philip Steer, BJOG Editor-in-Chief said:

"Stillbirth and infant death are a terrible loss and traumatic for any mother and family. Women with a previous infant death need additional support and advice concerning any subsequent pregnancies.

"Obesity and smoking in pregnancy are known risk factors for stillbirth and advice needs to be centred on pre-conception health so a woman can be as healthy as possible before, during and after pregnancy."

Provided by Wiley