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## Maternal Origin, Deprivation and Pregnancy Complications

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# Maternal Origin, Deprivation and Pregnancy Complications

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## DOCTORAL DISSERTATION

Doctoral dissertation for the degree of Doctor of Philosophy (PhD) at the Faculty of  
Medicine at Lund University

To be publicly defended on 26<sup>th</sup> of January 2023 at 13.00  
Department of Obstetrics and Gynecology  
Klinikgatan 12, 221 85 Lund  
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<p>In developed countries, women from more deprived socioeconomic backgrounds and minority racial/ethnic groups have a higher prevalence of adverse outcomes of pregnancy than do women from less deprived socioeconomic backgrounds and White women. However, there is a lack of evidence on the strength of the risk factors contributing to adverse pregnancy outcomes and on the size of their effect at the population level. This raises the question of whether observed disparities in pregnancy outcomes such as pre-eclampsia (PE) and stillbirth are due to maternal origin, socioeconomic status, a combination of both, or a factor that is not measured yet.</p> <p>To answer this question, first, we performed systematic reviews and meta-analyses on available literature of studies on PE and stillbirth. Second, in a screening study from the Fetal Medicine Foundation (FMF) in England we examined in more than 150 000 pregnancies the association between maternal origin and PE and maternal origin and stillbirth after adjustment to maternal characteristics and medical history. Third, we examined the relationship between the English Index of Multiple Deprivation (IMD) and the incidence of PE and stillbirth and we evaluated the distribution of IMD in a multiethnic cohort of pregnant women in the South East of England. Last, we assessed whether IMD contributes to the prediction of PE and stillbirth.</p> <p>This thesis demonstrates that first, in Black women the risk of PE and stillbirth, after adjustment for confounders, is higher than in White women, and second, the incidence of PE and stillbirth is higher in women living in the most deprived areas. However, in screening for PE and stillbirth, inclusion of IMD does not improve the prediction of these adverse outcomes provided by maternal origin and other maternal characteristics and elements of medical history.</p>		
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*This thesis is dedicated to the loving memory of my beloved grandmother, Dr. Zoe Arechvo. She is the one who constantly encouraged and inspired me to continue my studies and pursue this degree.*

*I hope I made you proud.*

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