

R032: Investigation of the link between maternal body mass index in early pregnancy and incidence of cerebral palsy in Northern Ireland – QUB

Cerebral palsy (CP) describes a range of conditions affecting a child's ability to move or control their movement due to problems with development or injury to their brain. CP is the leading cause of physical disability in children, it affects approximately 1:500 children worldwide and there are approximately 60 children diagnosed with CP each year in Northern Ireland.

Over the last 50 years, obstetric care before and during birth has improved however CP rates remain unchanged. Currently, there is no available cure for CP; therefore it is important to prevent this lifelong condition. To prevent CP we must better understand the risk factors during pregnancy which may lead to its onset and development. Studies have suggested that children of obese mothers may be at higher risk of developing CP, but the links between maternal obesity and CP are not yet clearly understood.

This study will firstly enable us to better understand the BMI profile of expectant mothers in Northern Ireland. Additionally, we will investigate the proposed association between maternal body mass index (BMI) and development of CP and further explore mediators of this relationship. We will link anonymised maternal health data, neonatal data and information from the Northern Ireland Cerebral Palsy Register on confirmed cases of CP. Ultimately, this novel research has implications for clinical practice in Northern Ireland and beyond, particularly regarding the advice given to women preparing for pregnancy.