

Impacts Across Siblings of Early Childhood Interventions: Experimental Evidence from Nigeria (Joint with Pedro Carneiro [UCL] and Francesca Salvati [Essex])

Abstract

There is now widespread recognition that 250 million children in lower income countries are at risk of failing to reach their development potential. This has led to a surge in policy maker interest in interventions to raise human capital accumulation in early life. While many such interventions target a particular child, little is known about how intervention gains are distributed across siblings. These distributional impacts could be positive or negative depending on parental preferences across children and the production function for human capital for any given child. We provide evidence on the issue using a randomized control trial tracking 3600 families for four years, that evaluates an intervention providing information and cash transfers to families triggered by the verified pregnancy of a target child. We examine impacts on the target child, an older sibling, and any younger sibling. Impacts across outcomes vary although we reject that families reallocate resources away from siblings and concentrate them on the target child. Stunting outcomes for the older and younger sibling do not improve because older siblings are outside the 1000 day window, and fade out of knowledge causes younger siblings developmental outcomes to remain unchanged. However, outcomes such as health, nutrition and parental inputs increase significantly for all siblings. We calculate the annualized IRR to the intervention based on this fuller set of impacts to be five times higher than those based on target child outcomes alone. Our analysis highlights the returns to early life interventions are greater than typically recognized, and suggests design modifications to further increase their returns.