

Funding Sources: USDA, NIH-NIGMS, Maternal, Early Nutrition and Development Research Core, Arkansas Children's Nutrition Center, Arkansas Children's Research Institute.

Current Developments in Nutrition 10 (2026) 108701
<https://doi.org/10.1016/j.cdnut.2026.108701>

P37-26-26 Dietary Total Fat and Polyunsaturated Fatty Acid Intake and Child Growth and Development Outcomes: A Systematic Review

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Objectives: Dietary fats support optimal fetal growth and development during pregnancy, and physical growth and cognitive development throughout infancy and childhood. This review was designed to identify and summarize the evidence of the relationships between total fat and polyunsaturated fatty acid (PUFA) intake during pregnancy, infancy, and childhood on growth and development.

Methods: Databases were searched for relevant publications from 1990 through August 2025; reference lists and responses to a Federal Register Notice request for information were reviewed. Using a priori specified criteria, dual, independent review of abstracts and full-text articles were conducted. Risk of bias (ROB) and strength of evidence (SOE) were assessed. Included studies were synthesized.

Results: Of 8,929 abstracts identified, 86 studies in 126 publications were included. Most publications (108) were randomized controlled trials, with the remainder (18) non-randomized studies. Over half (52%) were rated high ROB, followed by moderate (31%) and low (17%) ROB. The bulk of identified studies assessed dietary supplementation during pregnancy and/or lactation and growth outcomes measured from birth to 6 months of age. Overall, there was low SOE of no difference for PUFA supplementation above general dietary consumption during pregnancy and/or lactation and risk of preterm birth, growth outcomes (weight, height/length, head circumference), or developmental outcomes (cognition, movement, language, social emotional) vs. differing or no amounts of PUFA. The exception was n-3 PUFA intake during pregnancy and lower risk of preterm birth and higher birth weight and length vs. n-3 + n-6 PUFA supplementation. There was insufficient or no evidence linking PUFA supplementation and outcomes in adolescence and total fat intake and growth and developmental outcomes.

Conclusions: The large number of studies identified resulted in findings of no association between PUFA supplementation or total fat intake during pregnancy and/or lactation, infancy, and childhood and growth and developmental outcomes, with few exceptions. Targeted research is required to answer these questions with confidence.

Funding Sources: Agency for Healthcare Research and Quality, US Department of Health & Human Services.

Current Developments in Nutrition 10 (2026) 108702
<https://doi.org/10.1016/j.cdnut.2026.108702>

P37-27-26 Maternal Experience, Perceptions and Risk Factors for Poor Pregnancy Outcomes at Moi Teaching and Referral Hospital, Kenya

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Objectives: This study explored associations of maternal experience, perceptions, adherence, and antenatal clinic attendance on pregnancy outcomes.

Methods: The study site was Moi Teaching and Referral Hospital, where we used a mixed method study design, 1202 health records were accessed and key informant interviews among health workers and mothers on perceptions and their experiences while attending antenatal clinics.

Results: Unemployment was high (76.3%), 10.9% had no formal education, 25% of women had cesarian Section cases, 54% had low blood sugar, 15.4% low birth weight, 32% did not breastfeed within the first hour and 9.5% infant were preterm. Multivariate analysis showed further that high risk for low birth weight was seen among mothers with low education, of a younger age, unemployment and mothers with anemia. Cross-cutting themes from qualitative analyses showed that economic vulnerability significantly shapes antenatal care experience, late initiation of ante-natal clinic linked to limited awareness and perception on wellness, financial barriers still exist even with improved maternal services, there was limited male involvement. Nutritional and HIV services were well integrated in antenatal services.

Conclusions: High risk for low birthweight was seen among mothers with low education, anemic, younger and unemployed. Financial barriers, limited male involvement, late initiation of ante-natal clinic linked to limited to awareness and perceived wellness were some of the bottlenecks experienced by mothers. There is need for targeted interventions to improve maternal experience and pregnancy outcomes.

Funding Sources: There was no funding for this project.

Current Developments in Nutrition 10 (2026) 108703
<https://doi.org/10.1016/j.cdnut.2026.108703>

P37-28-26 Nutritional Status of Pregnant and Breastfeeding Women and Children Under Two in Two Districts of Afghanistan: Findings From a Cross-sectional Survey

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Objectives: The Aga Khan University, in partnership with the World Food Programme and the Ministry of Public Health, conducted a baseline household survey in Lalpur and