

# Lifecourse Epidemiology of Adiposity & Diabetes (LEAD) Center

colorado school of public health



## Trainee Profile: Curtis Harrod, PhD (2014)

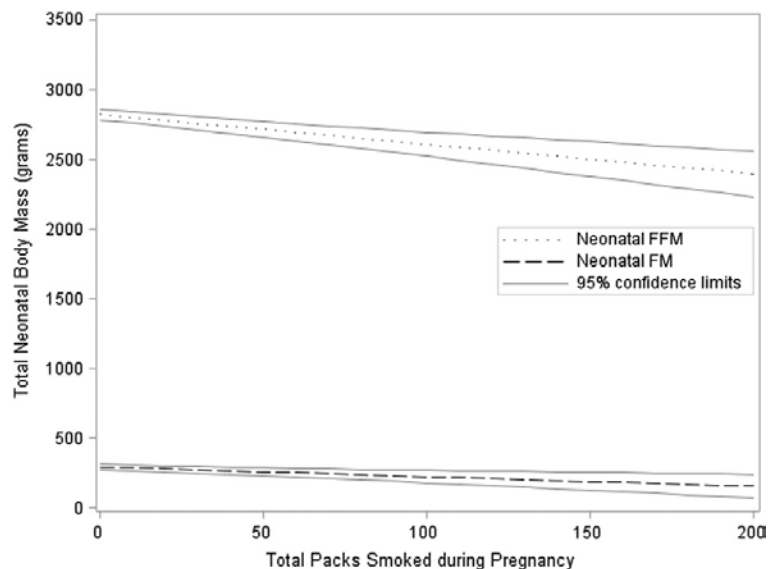
Dr. Harrod studied the associations of exposure to physical activity and smoking during pregnancy and offspring body composition in The Healthy Start Study.

### Published Research

Increasing levels of late-pregnancy total energy expenditure were associated with decreased neonatal adiposity (41.1 g less FM  $p=.03$ ) without significantly reduced neonatal lean mass. Thus, late pregnancy exercise can combat the effects of elevated maternal BMI and higher than expected maternal gestational weight gain. Harrod C, et al., *Amer J OB GYN*, 124 (2 part 1), 257, 2014.

Harrod CS, Fingerlin TE, Chasan-Taber L, Reynolds RM, Glueck DH, Dabelea D. Exposure to prenatal smoking and early-life body composition: The Healthy Start study. *Obesity (Silver Spring, Md)*. 2015;23(1):234-241.

Harrod CS, Reynolds RM, Chasan-Taber L, et al. Quantity and timing of maternal prenatal smoking on neonatal body composition: The Healthy Start study. *J Pediatr*. 2014;165(4):707-712.



Harrod and his colleagues found that each additional pack of cigarettes smoked during pregnancy was associated with significant decreases in neonatal body mass. Neonates exposed to prenatal smoking throughout pregnancy had significantly lower body mass, Fat Mass, and Fat Free Mass compared with

those not exposed to smoking. However, neonates of mothers who smoked only before late pregnancy had no significant differences in body mass, FM, or FFM compared with unexposed offspring. Conclusion: Exposure to prenatal smoking leads to systematic growth restriction. Smoking cessation before late pregnancy may reduce the consequences of exposure to prenatal smoking on body composition.

**Contact us about training opportunities:**

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