Title: Examining the Effect of Nurse-Family Partnership on Maternal and Offspring Life-Time Enrollment in SSI and DI in Three Randomized Clinical Trials

David Olds and Krista Mehari

This study will examine the effect of Nurse-Family Partnership (NFP), a program of prenatal and early childhood home visiting program by nurses for low-income mothers bearing first children, on two SSA outcomes among mothers and their first-born children over a 30-year period following birth of the first child: 1) Supplemental Security Income (SSI) and 2) Disability Insurance (DI). We will summarize NFP effects on these outcomes in three randomized trials conducted with 1) low-income White individuals (n=400),[1,2] 2) very low-income Black individuals (n=1138),[3-5] and 3) a large portion of Latinx individuals (n=735).[6,7] NFP has reduced conditions that directly impact use of SSI and DI,[1-8] including causing reductions in offspring disability based upon caregiver report.[5] NFP also reduced conditions associated with SSI and DI, including maternal mortality due to external causes, and a trend for child mortality due to preventable causes among very low-income Black individuals (p=.09). [8] We now wish to examine SSI and DI (and related outcomes) based upon SSA data and examine corresponding public costs adverted with this early intervention. We hypothesize that NFP effects will be most pronounced among the predominantly Black, very low-income sample in the second trial.
We have social security numbers on almost all participants, and our preference is to work directly with the identifiable SSA outcome data. If this is not possible, we will work with SSA to develop statistical models and corresponding SAS code to be used by SSA to obtain scientifically valid estimates of intervention effects. SSA will summarize findings by treatment conditions and subclasses that reflect potential intervention moderators such as participant sex, race, family income, and indicators of adversity measured at baseline during pregnancy.

References

1. Olds D, Eckenrode J, Henderson Jr. C, Kitzman H, Powers J, Cole R, Sidora K, Morris P, Pettitt L, Luckey D. Long-Term Effects of Home Visitation on Maternal Life Course and Child Abuse and Neglect: 15-Year Follow-Up of a Randomized Trail. JAMA 1997;278:637-643. PMID9272895
2. Olds D, Henderson CR Jr, Cole R, Eckenrode J, Kitzman H, Luckey D, Pettitt L, Sidora K, Morris P, Powers J. Long-term effects of nurse home visitation on children's criminal and antisocial behavior: 15-year follow-up of a randomized trial. JAMA 1998;280(14):1238-1244.
3. Kitzman H, Olds D, Henderson Jr. C, Hanks C, Cole R, Tatelbaum R, McConnochie, Sidora K, Luckey D, Shaver D Engelhardt K, James D, Barnard K. Effect of Prenatal and Infancy Home Visitation by Nurses on Pregnancy Outcomes, Childhood Injuries, and Repeated Childbearing: A Randomized Controlled Trial. JAMA 1997;278(8):644-652. PMID9272896
4. Olds, DL, Kitzman, H, Anson, E, Smith, JA, Knudtson, MD, Miller, T, Cole, R, Hopfer, C, Conti. C. Prenatal and Infancy Nurse Home Visit Effects on Mothers: 18-Year Follow-Up of a Randomized Trial. *Pediatrics.* 2019;144(6): e20183889.
5. Kitzman, H, Olds, DL, Knudtson, MD, et al. Prenatal and infancy nurse home visiting and 18-year outcomes of a randomized trial. Pediatrics. 2019;144(6):e20183876
6. Olds DL, Robinson J, O'Brien R, Luckey DW, Pettitt LM, Henderson CR, Ng RN, Korfmacher J, Hiatt S. Talmi A. Home visiting by nurses and by paraprofessionals: A randomized controlled trial. Pediatrics 2002;110(3):486-496. PMID12205249
7. Olds DL, Robinson J, Pettitt L, Luckey DW, Holmberg J, Ng RK, Isacks K, Sheff K. Effects of home visits by paraprofessionals and by nurses: age-four follow-up of a randomized trial. Pediatrics 2004;114(6):1560-1568. PMID15574615
8. Donlean-McCall NS Knudtson MD, Olds DL. Maternal and Child Mortality: Analysis of Nurse Home-Visiting in 3 RCT's. Am J Prev Med. 2021 Oct;6(4):483-491. doi: 10.1016/j.amepre.201.04.014. Epub.2021 Aug 19. PMD:34420828.