

Title: Pregnancy and Birth Outcomes Among Individuals Referred for Housing Choice Vouchers, An Observational, Retrospective Cohort Study

Introduction: Homelessness during pregnancy poses significant health risks for pregnant individuals and their newborns. Community partnerships can increase access to stable housing during pregnancy, potentially reducing adverse birth outcomes. This study aims to evaluate pregnancy and birth outcomes and healthcare utilization in a pregnant population stably housed through a community partnership, as compared to other pregnant individuals experiencing homelessness.

Study Methods/Program Description: This is an observational, retrospective cohort study. The study population is pregnant individuals in the Cincinnati Metropolitan Housing Authority (CMHA) referral program between 1/1/2018 and 12/31/2021. The control population is pregnant individuals experiencing homelessness in Ohio between 1/1/2018 and 12/31/2021. This study aims 1) To determine rates of pregnancy and birth complications in pregnant individuals in the CMHA referral program; 2) To compare rates of pregnancy and birth complications between pregnant individuals in the CMHA referral program versus pregnant individuals experiencing homelessness in Ohio; and 3) To compare healthcare utilization between pregnant individuals in the CMHA referral program versus pregnant individuals experiencing homelessness in Ohio. The primary outcomes are dichotomous and will be reported as percentages. A propensity score model using logistic regression will be built using potential confounders. Each case will then be matched to a control (1:1 match). The outcomes will be compared between the study and control groups using Wilcoxon rank sum test for quantitative measures and Chi-square test for qualitative measures.

Results/Impacts: Stably housed pregnant individuals experience lower rates of pregnancy complications, including lower rates of pre-eclampsia, preterm labor and preterm birth. Their infants similarly experience lower rates of complications, including low birth weight and NICU admission.

Conclusions/Lessons learned: Housing instability and homelessness are important drivers of adverse pregnancy and birth outcomes. Housing inequality is a key contributor to racial disparities in maternal and infant morbidity and mortality. Access to stable housing during pregnancy, specifically as provided through local partnerships, has potential to decrease adverse birth outcomes and healthcare associated costs. Data collected as part of this project will be used to advocate for state-level change and expansion of the referral program to additional communities through housing policy, cross-sector partnerships, and legislation.