Grant Deliverables and Reporting Requirements for UTC Grants

UTC Project Information	
Project Title	An Intersectoral Approach to Study Built Environment Factors Affecting Postpartum Depression and Children's Health
University	Cornell University - Weill Cornell Medicine
Principal Investigator	Yiye Zhang, PhD, MS
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Funding Source(s) and Amounts Provided (by each agency or organization)	USDOT: $99,899 Weill Cornell Medicine: $50,000
Total Project Cost	$149,899
Agency ID or Contract Number	Sponsor Source: Federal Government CFDA #: 20.701 Agreement ID: 69A3551747119
Start and End Dates	▇ Start date: 10/01/2019 ▇ End date: 03/31/2021
Brief Description of Research Project	Aim 1: Examine the association between built environment and PPD and develop a PPD risk model. Aim 2: Interview clinicians on the utility of the PPD risk model on maternal and children's outcomes. Aim 3: Identify effects of built environment factors associated with PPD and children's allergic diseases. Research outcomes in the form of a PPD risk prediction model are expected to be submitted as provisional patent through Cornell University's Center for Technology Licensing. In addition, research outcomes will be published as journal publications, and communicated to clinicians at Weill Cornell Medicine's clinics as patient and provider education pamphlets and flyers. We aim to identify built environment related factors that affect PPD, and indirectly, children's health, that may facilitate strategies to better protect maternal and children's health. By working with a local clinic, we expect our study findings to be

	translated into patentable risk reduction algorithms that incorporate clinical and environmental factors to assist in routine maternal and children's health care.
Describe Implementation of Research Outcomes (or why not implemented)\n\nPlace Any Photos Here	We have developed a machine learning algorithm to predict the risk of PPD as part of Aim 1. In Aim 2, we interviewed clinicians including OBGYN and pediatrician clinicians on the use of social determinants of health in their routine care of patients. In Aim 3, we have created a dataset on neighborhood built environment in NY, NJ, CT, and PA by 11-digit census tracts.
Impacts/Benefits of Implementation (actual, not anticipated)	Publication in Journal of Affective Disorder (Selected as Editor's Choice)\n\nInvitation for presentation at\n ▪ Epic Corporation\n ▪ Reliable Health\n ▪ Hospital Association of New York State\n ▪ Ground Rounds at Weill Cornell Medicine\n ▪ Perinatal Mental Health SIG\n ▪ Machine Learning in Medicine Intercampus Symposium\n\nProvisional Patent Application on risk model (D8781-02-PC) through the Center for Technology Licensing at Cornell University (CTL)
Web Links\n\n• Reports\n\n• Project website	http://ctech.cee.cornell.edu/final-project-reports/