The trajectory of mental health and smoking behaviors during pregnancy.

Background: Mental illness contributes a substantial burden of disease worldwide, and some consider it “the biggest unaddressed health challenge of our age.” Stress, depression, and anxiety are the most common complications experienced by women during the perinatal period, all of which have been associated with cigarette smoking during pregnancy. Poor mental health and smoking during the perinatal period are major public health concerns as both have been associated with poor pregnancy outcomes and early childhood behavioral and development problems. Fortunately, maternal mental health diseases are treatable and pregnant women may be more motivated to receive mental health and smoking cessation interventions, but recognition and screening must occur in order for appropriate interventions to be offered.

The proposed project will utilize electronic medical records (EMR), patient survey data, and medical provider survey data collected from three obstetrics clinics participating in ACOG’s Expanded Collaborative Ambulatory Research Network (CARN). Mental health, smoking, and treatment data will be collected at intake and each subsequent prenatal visit through six weeks postpartum to address the following goals.

The goals of this study are 1) to determine the course of depressive, anxiety, and stress symptoms during the perinatal period, and identify differences in course by smoking status (current smoker, recent quitter, non-smoker) and pre-pregnancy mental health; 2) to assess the role of smoking on depressive, anxiety, and stress symptoms during pregnancy; and 3) to determine the impact of mental health or smoking cessation treatment received during pregnancy on depressive, anxiety, and stress symptoms at 6 weeks postpartum.

Data collection: Patients recruited into the survey portion of this study will be asked to fill out one short survey at the time of any of their prenatal visits. The survey will collect demographic data on patients and ask a few questions regarding their recent mental health and smoking behaviors.

At every prenatal visit we are asking the participating sites to provide the following data for patients recruited into the study: Five A’s Intervention record (FAIR) for women who reported smoking at intake; referrals for smoking cessation and mental health; any prescribed medications for mental health or smoking; and whether any mental health screening was performed, and if so what was the result.

At the first postpartum visit we are asking the participating sites to provide the following data for patients recruited into the study: infant birth date; infant birth weight; referrals offered (mental health or smoking). Physicians participating in the study will fill out a postpartum check list documenting the mental health and smoking cessation services provided to the patient at the first postpartum visit.
Finally, participating physicians will complete a provider survey on their own knowledge and practices concerning smoking and mental health during pregnancy, and the site(s) lead physician will fill out a brief site(s) demographics and characteristics survey.

**Expected outcomes**

1) A large database of information on pregnant women from several medical facilities across the United States containing: longitudinal data on smoking and mental health through pregnancy into postpartum, allowing for calculation of a trajectory for different trimesters; information on mental health symptoms, prescribed medications, and referrals offered throughout pregnancy linked to birth outcome data; information on smoking behaviors, prescribed medications, and referrals throughout pregnancy linked to birth outcome data; and information on the association between smoking and mental health during pregnancy.

2) Responses from participating physicians from all sites to a survey on knowledge, opinion and practice relevant to mental health and smoking during pregnancy.