

## POSTER ABSTRACTS

9<sup>th</sup> Annual HMO Research Network Conference

April 1-2, 2003 Denver, CO

### Pharmacoepidemiology 05

#### Prescription Drug Use Before and During Pregnancy

Susan E. Andrade, ScD, Meyers Primary Care Institute

Jerry H. Gurwitz, MD, Meyers Primary Care Institute

Robert L. Davis, MD, MPH, Group Health Cooperative

K. Arnold Chan, MD, ScD, Harvard School of Public Health, Channing Laboratory

Jonathan A. Finkelstein, MD, MPH, Harvard Pilgrim Health Care

Kris Fortman, PhD, HealthPartners of Minnesota

Heather McPhillips, MD, MPH, Group Health Cooperative

Marsha A. Raebel, PharmD, Kaiser Permanente Colorado

Douglas Roblin, PhD, Kaiser Permanente Georgia

David H. Smith, PhD, MHA, Kaiser Permanente Northwest

Marianne Ulcickas Yood, DSc, MPH, Henry Ford Health Systems

Richard Platt, MD, MS, Harvard Pilgrim Health Care, Harvard Medical School

**Background.** Up-to-date and valid information on the full extent of drug prescribing and the types of drugs prescribed to pregnant women is limited.

**Methods.** A retrospective study was conducted using the automated databases of 8 health maintenance organizations involved in the HMO Research Network Center for Education and Research on Therapeutics (CERT). Women who delivered an infant in a hospital from January 1, 1996 through December 31, 2000 and had at least one year continuous enrollment with drug benefits before delivery were identified. Information on maternal age, prescription drugs dispensed, and inpatient and outpatient visits was obtained from the HMO automated databases. Prescription drug use was evaluated assuming a gestational duration of 270 days, with three 90-day trimesters of pregnancy and a 90-day period before pregnancy. The frequency of prescriptions and proportion of women dispensed prescription drugs were estimated.

**Results.** During the period 1996 through 2000, 131,555 women (with a total of 154,020 deliveries) delivered an infant and met the criteria for study. In the 270 days before delivery, 108,085 women were dispensed a drug or medical supply, with a total of 382,096 drugs other than vitamin or mineral supplements dispensed. The most frequently used drug classes included oral anti-infectives (59,115 deliveries), respiratory agents (28,630 deliveries), pain medications (22,002 deliveries), gastrointestinal drugs (12,802 deliveries), and antidepressants (4,272 deliveries). The frequency of use of these drug classes increased over the years of study, with 30% of women receiving a dispensing of an oral anti-infective in the 270 days prior to delivery during 1996 compared to 39% in 2000, 13% receiving a respiratory drug in 1996 compared to 20% in 2000, and 1% receiving an antidepressant in 1996 compared to 4% in 2000. Antidepressant use increased with increasing age, with 2% of women age 20-29 years receiving at least one dispensing compared to 3% of women aged 35-39 years and 5% of women age 40-44 years.

**Conclusions.** Our findings of widespread and increasing medication use among pregnant women highlight the importance of research aimed at examining the effects of medication exposure on the developing fetus.