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Spotlight: Practice Pattern Variation Analysis
Focus on the Use of Ultrasounds

Through MHQP’s statewide, evidence-based Practice Pattern Variation Analysis (PPVA) program, significant differences in the use of medical services for similar conditions can be identified, and through discussion with clinicians a determination can be made as to whether the variation is clinically warranted or unexplained.

**Use of Frequent Fetal Scans in the News**

One of the conditions MHQP’s PPVA program identified as a strong opportunity to better understand variation was the frequency of ultrasounds during pregnancy. A recent [Wall Street Journal article by Kevin Helliker (7/17/2015)](https://www.wsj.com/articles/fetal-scans-for-low-risk-pregnancies-are-improbable-1436873020) reported that pregnant women are getting more ultrasounds, although experts say frequent fetal scans in low-risk pregnancies are not medically justified. According to the article, the number of routine prenatal ultrasound procedures (for all pregnancies) increased by 92% from 2004 to 2014, reaching an average of 5.2 per delivery. The article notes that several medical organizations, including the American Congress of Obstetricians and Gynecologists, recommend only one or two ultrasounds for low-risk women and that experts are concerned that the long-term effects of the acoustic energy and intensity emitted from the procedure on mothers and their babies is unknown. Major epidemiological studies on this matter have not been undertaken since the 1990s, when the equipment emitted only one eighth of the acoustic energy being emitted with today’s modern equipment ([2012 British Institute of Radiology](https://www.bir.org.uk/)). Moreover, an analysis of published literature released by the [Cochrane Collaboration](https://www.cochranelibrary.com) on fetal ultrasound concluded that “routine scans do not seem to be associated with reductions in adverse outcomes for babies” (Cochrane Collaboration 2010).

**MHQP’s Practice Pattern Variation Program**

In 2014 MHQP’s statewide PPVA program identified the number of ultrasounds after the first trimester in uncomplicated pregnancies as one of over 40 conditions that demonstrated significant practice variation among clinical providers. MHQP engaged with Massachusetts Chapter of the American College of Obstetricians and Gynecologists and concluded that for the Massachusetts commercial patient population, the average number of ultrasounds per uncomplicated pregnancy after the first trimester was greater than 4, with patients receiving as few as 1 and as many as 9 ultrasounds per pregnancy.

**MHQP’s Practice Pattern Variation Analysis** is promoting discussion and engagement among providers and others in our health care community across various condition areas.

Leaders from the obstetrical community, in conjunction with the Massachusetts Chapter of the American Congress of Obstetricians and Gynecologists (MA ACOG) are actively taking a closer look at ultrasounds through MHQP’s PPVA.
MHQP’s PPVA program is physician-driven and grounded in multi-payer data analysis. Clinical leadership can address the causes of the variation and determine whether the variation is clinically warranted, how to initiate change if it is not, and consider how the variation impacts quality, safety and cost. Through PPVA, the medical community can work toward adoption of community developed standards and actions that will improve quality care for patients.

MHQP’s PPVA program provides analytic tools, data, training and statewide opportunities for clinical community collaboration. We would like to work with you.

Please contact us to learn more about the 40 conditions identified by MHQP where we have identified significant differences in the use of medical services for similar conditions.