

# Where physician completed obstetrical residency may provide quality-of-care indicator

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A ranking of obstetrics and gynecology training programs based on the maternal complication rates of their graduates' patients found these rankings consistent across individual types of complications, suggesting that these rates may reflect measures of overall quality, according to a study in the September 23/30 issue of *JAMA*, a theme issue on medical education.

"Many [physicians](#) and nonphysicians likely assume that some residency programs tend to produce better physicians than others—either because those residency programs train physicians better or because those residency programs can recruit more capable trainees. Although plausible, these intuitions have not been empirically tested," according to background information in the article. The authors add that this information could be useful in several ways, including indicating what makes certain programs better; and helpful to patients selecting a physician. "Some patients might already be preferentially seeking physicians who have graduated from programs they believe to be elite, but without the evidence to support their intuition."

David A. Asch, M.D., M.B.A., of the Philadelphia Veterans Affairs Medical Center and University of Pennsylvania, Philadelphia, and colleagues examined whether [obstetrics](#) and [gynecology](#) (OB) residency programs could be evaluated according to the risk-adjusted rates of maternal complications of the patients of the graduates of these

programs. The study included data on Florida and New York obstetrical hospital discharges between 1992 and 2007, representing 4,906,169 deliveries performed by 4,124 obstetricians from 107 U.S. residency programs.

Maternal complications were analyzed separately by delivery mode, including vaginal and cesarean births reflecting laceration, hemorrhage, and all other complications after [vaginal delivery](#); hemorrhage, infection, and all other complications after cesarean delivery; and composites for vaginal and [cesarean deliveries](#) and for all deliveries regardless of mode.

The researchers found that adjusted rates of complications from physicians trained in the top-quintile (fifth) programs were substantially lower than from those physicians trained in the bottom-quintile programs. "All else equal, a woman choosing an obstetrician who trained at a program in the top tier would face a 10.3 percent risk of a major complication compared with 13.6 percent if she chose an obstetrician trained at a program from the bottom tier," the authors write. "In general, the bottom-quintile programs had complication rates approximately one-third higher than those of the top-quintile programs."

The rankings of residency programs based on each of the measures were similar. "More generally, residency programs that produced physicians with low adjusted rates of one complication also produced physicians with low adjusted rates of other complications."

Adjustment for medical licensure examination scores did not substantially change the program ranking.

"To our knowledge, these findings provide the first empirical support for widely-held intuitions about the clinical implications of variation in medical education. The often large and uniformly positive correlations across the 9 separate measures lend support to the view that rates of

individual complications track together at the level of the residency program and suggest that these rates may reflect good measures of overall quality," the researchers write.

"These results may have important implications for patients," they add. "If these findings are confirmed and refined, women might select obstetricians in part by where they were trained. The general consistency in programs' rankings despite different measures of quality supports the validity of the measures and also suggests that top programs may be likely to produce physicians who are better in unmeasured ways as well."

More information: *JAMA*. 2009;302[12]:1277-1283.

Source: JAMA and Archives Journals ([news](#) : [web](#))

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