article on a closed claims analysis of difficult tracheal intubation.[3] Drs. Marymont and Vender are concerned because our statement in the Editorial[2] that "[i]f difficult airway management is predicted, general anesthesia should not be induced before securing the airway" may be inconsistent with the American Society of Anesthesiologists Practice Guidelines for Management of the Difficult Airway.[4]

Although our remarks were orientated to an article[3] centered on difficult tracheal intubation, our statement regarding securing the airway before induction of anesthesia does not necessarily mean awake tracheal intubation. We prefaced the statement as follows: "It is apparent from these cases that inadequate planning is a core issue. The airway must be assessed preoperatively, not only to predict difficult intubation, but also the risk of difficulty in ventilation through a facemask or supraglottic airway, difficulty in securing a surgical airway and risk of aspiration."[2] Clearly, there must be a degree of certainty regarding capacity to "secure the airway" in the unconscious patient (be it by use of a facemask, supraglottic airway, invasive airway, or tracheal intubation) before deciding to induce general anesthesia first. Hence, our statement, which does not mandate intubation before general anesthesia, is not inconsistent with the practice guidelines formulated by the American Society of Anesthesiologists.[4]

Our Editorial[2] accompanied a compelling article[3] that points out that outcomes regarding management of difficult tracheal intubation remain poor despite the considerable ongoing efforts by professional bodies and others to improve them. The main message of our editorial is that we should work together "to lift standards in crisis management for airway difficulties . . . much as has been done for cardiopulmonary resuscitation in recent years."[2] To achieve this, "we need to regularly review the guidelines and encourage further research in relationship to these problems."[2] In addition, we pointed out that "knowledge of guidelines alone is insufficient to address these problems: skill and judgment are essential ingredients." Therefore, we also need to establish a system, "with crews [*i.e.*, we clinicians] undergoing regular, systematic simulation training and emergency equipment constantly to hand and regularly checked."[2] Only through these steps can we progress toward risk-free airway management.

Competing Interests

Dr. Hillman has received institutional grants from ResMed Inc. (San Diego, California), Nyxoah (Mont-Saint-Guibert, Belgium), Oventus (Indooroopilly, Australia), and Zelda Therapeutics (Perth, Australia). Dr. Asai reports no competing interests.

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Measuring Childbirth Outcomes: Comment

To the Editor:

We read with interest "Measuring Childbirth Outcomes Using Administrative and Birth Certificate Data" and applaud Glance *et al.*[1] for creating a composite quality metric that uses both maternal and newborn administrative data. We are proud that Glance *et al.* have chosen to apply their expertise to current challenges in maternity care, and we thank the Editor for publishing. We agree with their recommendation that administrative data be submitted by all hospitals to a national maternal quality improvement database, but we argue that clinical data are superior *and* obtainable and should also be attempted.

Administrative data alone lack the granularity to provide information as to *why* a hospital is an outlier and to allow providers to determine the changes in the process of care needed to improve outcomes in their population. Clinical data from the electronic health record not only provide this critical piece of the puzzle but also the ability to discern the

impact of changes in practice through monitoring detailed balancing metrics. Simply reporting rates is not enough: Improvement in maternal and newborn outcomes should be the overarching goal of any national obstetric quality database.

The authors state that "clinical data are currently too expensive for most hospitals to collect." In our opinion the costs for mothers and babies are too high for us *not* to collect clinical data to allow us to understand and improve obstetric care in the United States. Electronic medical records already house these data; however, in most cases, hospitals cannot easily retrieve the information. Efforts should be focused on maximizing the efficiency of clinical data acquisition for obstetric quality improvement and research through increasing the amount of data that can be extracted automatically as well as investigating broader means of acquisition.

In the meantime, however, there are ongoing continuous quality improvement collaboratives in a number of clinical areas (including perinatal)[2,3,4] that have demonstrated that it *is* possible to collect clinical data and that it *is* worth the effort to make the United States a safer place to give birth.

Competing Interests

Dr. Dunbar is Chief Executive Officer of the Foundation for Health Care Quality (Seattle, Washington) and a shareholder in Soovu Labs (Seattle, Washington). He has received expenses from the American Society of Anesthesiologists (ASA; Schaumburg, Illinois) to attend meetings as the ASA Director for the state of Washington. Dr. Souter has received expenses to attend meetings to present Obstetrical Care Outcome Assessment Program (Seattle, Washington) research. The other authors declare no competing interests.

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Measuring Childbirth Outcomes: Reply

In Reply:

We thank Sitcov *et al.* for their comments on our article.[1] In their letter, the authors state that although they "agree with the recommendation that administrative data be submitted by all hospitals" to a national obstetrical outcomes registry, they believe that "clinical data are superior" to administrative data, and that clinical data are feasible and are "worth the effort to make the United States a safer place to give birth." In principle, we are in complete agreement that there is not only a strong business case, but also a strong ethical argument for collecting high-quality clinical data to use as the basis for improving population outcomes, not only in obstetrics but in all medicine. Quality measurement is at the heart of efforts to provide actionable feedback to hospitals, physicians, and other providers. Quality measurement is also the linchpin of efforts by the federal government and third-party payers to deliver more cost-efficient higher quality care. And quality measurement based on clinical data is likely more valid compared with measurements based on administrative data. But, the question is who will pay for the cost of manually abstracting records for 3.8 million births annually in the United States?[2] We commend the authors for their efforts in developing an obstetrical registry using manually abstracted clinical data from 24 institutions.[3] Such a registry can be an important tool for research and quality improvement, but to be an effective tool for parents throughout the country, clinical data are needed from most if not all hospitals. Doing so by manually abstracting records would be cost prohibitive. In fact, the federal government, which is the single largest health care payer in the United States,

uses administrative and not manually abstracted clinical data to measure quality. We believe that the most cost-effective alternative to manually abstracted clinical data is to extract structured clinical data from the electronic medical record. To that end, the American College of Obstetricians and Gynecologists (Washington, D.C.) and the American Society of Anesthesiologists (Schaumburg, Illinois) have partnered to create the Maternal Quality Improvement Program[4] (now renamed the Birth Registry) to serve as a national platform for measuring and improving childbirth outcomes. The data elements in the data dictionary for the Birth Registry have been incorporated by some leading electronic medical record vendors and will eventually serve as the backbone of the Birth Registry. These clinical data elements can then be extracted directly from the electronic medical record without the need for manual abstraction by trained data collectors. Our goal in "Measuring Childbirth Outcomes Using Administrative and Birth Certificate Data" was to examine the feasibility of using *lower-quality data* (hospital administrative and birth certificate data) to create risk-adjusted outcome measures for childbirth outcomes while we await broad-based penetration of Birth Registry–compliant electronic medical records. Because hospitals collect administrative and birth certificate data on all births, such data could be used to provide expectant mothers with information on which to base their choice of providers, as well as providing clinicians with actionable performance feedback—while we await more robust clinical data based on the electronic medical record.

Competing Interests

Drs. Glance, Dick, and Hasley served on the Steering Committee for the Maternal Quality Improvement Program (now renamed the Birth Registry). Dr. Hasley serves as the Chief Medical Information Officer at the American College of Obstetricians and Gynecologists (ACOG; Washington, D.C.) and has spoken to sales managers at AbbVie Inc. (North Chicago, Illinois) concerning the future of health information technology. The remaining authors declare no competing interests.

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Labor Epidural Education and Hispanic Ethnicity: Comment

To the Editor:

I have read with interest the article entitled "Education Program Regarding Labor Epidurals Increases Utilization by Hispanic Medicaid Beneficiaries" by Togioka *et al.* in the October issue of Anesthesiology.[1] The intervention group in the Hispanic arm saw its epidural rate increase from 60 to 80%, while the non-Hispanic arm had a nonsignificant rise from 82 to 86%.

Here, the population previously familiar with the benefit of labor epidurals has the same epidural utilization rate as the postintervention group. What the authors have actually demonstrated is that marketing works.

But we already knew this: Almost no American women shaved their legs prior to 1915, when Gillette created the Milady Décolleté razor and launched it with an advertising campaign. By 1964, 98% of young women were shaving their legs.[2,3]

Any subpopulation not yet marketed to will be expected to respond to an educational campaign—and in this regard, labor epidurals are behaving similarly to other goods. The Hispanic subset of the population was not captured by previous marketing, so the investigators focused on reaching them with a targeted marketing campaign. We can make similar statements about educational programs regarding hydration with carbonated cola-flavored sugar water or cancer prevention with vaccination for human papilloma virus. Further, we can look