Improved obstetric safety through programmatic collaboration

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Healthcare safety and quality are critically important issues in obstetrics, and society, healthcare providers, patients and insurers share a common goal of working toward safer practice, and are continuously seeking strategies to facilitate improvements. To this end, 4 New York City voluntary hospitals with large maternity services initiated a unique collaborative quality improvement program. It was facilitated by their common risk management advisors, FOJP Service Corporation, and their professional liability insurer, Hospitals Insurance Company. Under the guidance of 4 obstetrics and gynecology departmental chairmen, consensus best practices for obstetrics were developed which included: implementation of evidence based protocols with audit and feedback; standardized educational interventions; mandatory electronic fetal monitoring training; and enhanced in-house physician coverage. Each institution developed unique safety related expertise (development of electronic documentation, team training, and simulation education), and experiences were shared across the collaborative. The collaborative group developed robust systems for audit of outcomes and documentation quality, as well as enforcement mechanisms. Ongoing feedback to providers served as a key component of the intervention. The liability carrier provided financial support for these patient safety innovations. As a result of the interventions, the overall AOI for our institutions decreased 42% from baseline (January–June 2008) to the most recently reviewed time period (July–December 2011) (10.7% vs 6.2%, $p < 0.001$). The Weighted Adverse Outcome Score (WAOS) also decreased during the same time period (3.9 vs 2.3, $p = 0.001$.) Given the improved outcomes noted, our unique program and the process by which it was developed are described in the hopes that others will recognize collaborative partnering with or without insurers as an opportunity to improve obstetric patient safety.

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BACKGROUND

Healthcare safety and quality are critically important issues, and working toward safer systems and safer practice is a common goal for society, healthcare providers, patients, and insurers. National leaders in obstetrics and gynecology have been role models in these efforts. The high-risk, low-frequency events encountered, along with the volume, acuity, complexity, and unpredictability in obstetrics provide significant patient safety challenges. Safety experts have recommended strategies to address these unique challenges including: developing a safety culture, improving team function, communication and emergency preparedness, medical simulation training, and implementation of evidence based guidelines.[1,2] Interventions based on these strategies can improve safety and quality, optimize patient outcomes and minimize patient injury.

Injury to obstetrical patients remains a driving force in the ongoing nationwide liability crisis.[3] Growing evidence suggests that money spent on compensation payments could be better spent in efforts to improve patient care and outcomes.[3-7] Recent studies have demonstrated the impact of comprehensive patient safety programs on safety culture[4] and patient outcomes,[5,6] and have started to assess the relationship between liability claims and payments[6] in obstetrics. While there appears to be a relationship between some safety initiatives and outcomes, any link between those interventions and reduced liability remains extremely tenuous.[7] In part, this is because of the time lag between interventions, the appearance of injury (eg, cerebral palsy), and completion of the legal process. It is also in part because many of the major liability costs are encumbered by outcomes not thought to be linked to obstetrical care.[8] For example, cerebral palsy, which according to an American College of Obstetricians and Gynecologists (ACOG) analysis that has been endorsed by American Academy of Pediatrics (AAP) as well as both the National Institutes of Health (NIH) and the Centers for Disease Control and Prevention (CDC) is most often unrelated to events in labor, still results in the highest professional liability costs. In those cases jurors are understandably sympathetic to disabled children, and will award substantial payouts even when there is little evidence of substandard care.

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The critical role that collaboration may play in quality and safety endeavors has been described in other medical fields[9] as well as in obstetrics.[6,10,11] Several quality improvement collaboratives in obstetrics have been described in the years since we initiated our collaborative model, including those of the Hospital Corporation of America,[6] Catholic Healthcare Partners,[10] and a Michigan statewide collaborative.[11] The aforementioned perinatal safety collaboratives have many features similar to the ones we describe including education about best practices, interdisciplinary fetal heart monitoring training, and increased in-house physician coverage. However, there are unique features of our collaborative that are worthy of report, including collaboration with our risk management advisors and professional liability insurers, the development and sharing of unique safety-related expertise at participating institutions, and the inclusion of a robust audit and feedback mechanism.

RATIONALE

In an attempt to enhance quality at hospitals with among the largest delivery services in New York State, we developed a collaborative quality improvement program that included 4 independent New York City healthcare organizations, their risk management advisors (FOJP Service Corporation [FOJP]), and their professional liability insurer (Hospitals Insurance Company [HIC]). Both FOJP and HIC have demonstrated an interest in, and a commitment to, healthcare safety and quality, with a chief medical officer and staff who help to coordinate quality initiatives for the hospitals. FOJP and HIC provide services, resources and funding to reduce patient injury and improve clinical outcomes, even with the understanding that any impact on claim costs will not be observed or measurable for years to come. The manner in which this collaborative program was developed is described in order to provide a blueprint for others to engage in a similar partnering process.

METHODS

A. The historical genesis of the collaborative

In the mid-1970s 4 major New York Metropolitan Area healthcare organizations came together to create their own professional liability insurance program with their own risk management advisors, FOJP Service Corporation. Given the joint hospital ownership for 4 decades, liability expenses of the institutions became a shared expense and obligation. Not surprisingly, obstetrics remained a leading source for liability claims for all participants. Therefore, a joint effort to reduce liability through the sharing of independently acquired knowledge, expertise, and successful models became a priority. The departmental chairmen of obstetrics and gynecology at the 4 institutions, with strong leadership support at each of the medical centers, and the management team at FOJP realized that an

opportunity existed for an enhanced collaboration, which in turn had the potential to improve patient safety.

Each of the 4 participating medical centers has an independent Obstetrics and Gynecology residency program. Two of the hospitals are university centers, and 2 are academically affiliated community-based medical centers. Practice models at the institutions vary widely, as does the make up of the medical staffs. The 4 obstetrics and gynecology departments include some institutions with greater than 90% of physicians being on faculty, as well as institutions with predominantly voluntary physicians. The individual institutions do anywhere from 3900 to 7800 (24 000 total) deliveries per year and care for patients widely distributed across socioeconomic status, race, and ethnicity.

B. Collaborative oversight

The obstetrical chairmen from the 4 institutions began discussing opportunities for improved patient safety and quality of care in 2005, with standing meetings held every other month and ad hoc meetings often held more frequently. When the process began, the chairs initially planned to develop best practices for obstetrics including implementation of evidence-based protocols, standardized educational interventions, mandatory electronic fetal monitoring training, and guidelines requiring improved documentation. Additionally a plan was made for each institution to develop a unique safety-related area of expertise that they would ultimately share and disseminate across the collaborative.

After establishing a productive and successful relationship between the chairs and FOJP, additional faculty with expertise in quality and performance improvement from each institution were brought together to form an Obstetric Quality Improvement Committee. This committee began meeting in 2006 and continues to meet monthly.

C. Financial support for interventions

The insurance company provided staff, resources, and funding to facilitate a number of initiatives including the development and incorporation of: electronic medical records to promote safer care, systems to increase physician coverage on labor and delivery, simulation curricula, and team training programs. Institutions were selected to develop different interventions to promote patient safety based on areas of expertise, and funding was provided with the understanding that upon creation of novel solutions and programs, these developments would be shared across the collaborative and implemented widely. This strategy of allowing each institution to develop in 1 area allowed for division of workload and maximization of resources and productivity. Sharing of institutional experiences and planning for widespread dissemination of newly created and piloted programs initially occurred at the Obstetric Quality Improvement Committee, and subsequently took place at the chairs' meetings.

D. Collaborative interventions

1. Consensus best practices for obstetrics

"Best practices for Obstetrics" are a comprehensive set of evidence-based guidelines that were developed over 1.5 years, and were based on consensus of the department chairmen and the obstetric leadership from all institutions. These guidelines were widely disseminated in November of 2007, are readily available at all institutions, have been adopted into practice, and undergo continuous review and revision based on newly available evidence. Guidelines include documentation criteria for the content and timing of attending admission and progress notes (to both demonstrate and encourage close attending supervision and development of a plan of care), as well as for documentation of patient refusal of care should it occur. The guidelines mandate the presence of a clearly identified attending in-house, who is responsible for each patient in labor, including those receiving oxytocin or with an epidural. Best practices also address critical patient safety and quality issues including utilization of an oxytocin bundle, guidelines for the management of suspected macrosomia, operative vaginal delivery, trial of labor after cesarean, multiple gestations, and timing of elective deliveries. The guidelines are all based on the best available evidence, the Institute for Healthcare Improvement model,[12] and current ACOG guidelines (see **Figure 1**).

2. Standardized educational intervention

The leadership team developed a standardized grand rounds curriculum that was presented to members of Obstetric and Gynecology and allied departments at each participating institution immediately prior to roll out of the best practice guidelines. These grand rounds were used to introduce the concept of the collaborative, to make it clear that compliance with the guidelines was expected, and to highlight upcoming interventions.

3. Mandatory electronic fetal monitoring training

The leadership team developed an online curriculum and a finalized online course that became available in the spring of 2009. All providers working on labor and delivery (attending physicians, residents, physicians' assistants, nurses, and midwives) were required to complete the course. The curriculum included education about the 2008 National Institutes of Child Health and Human Development 3-tier fetal heart rate interpretation system. The course taught appropriate terminology and definitions, and provided case-based education. Completing the course required 4–5 hours. This universal interdisciplinary education helped promote staff communication in a common language regarding fetal heart tracings and permitted the development of escalation policies. Providers had to pass a test after

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Figure 1:
Best practices for obstetrics

Best Practices for Obstetrics

Admission Note

- *Latent phase* – within 12 hours
- *Active phase* – within 4 hours
- Include history, exam, fetal assessment, plan of care and EFW

Progress Notes

- *Latent phase* – every 8 hours
- *Active phase* – every 4 hours
- *Stage 2, nullipara* – within first 2 hours and then hourly
  multipara – within first hour and then hourly
- Include labor progress, FH monitor findings, interventions, and plan of care

Attending Coverage

- Primary or covering attending must be in-house and readily available for patients:
  - In labor
  - Receiving oxytocin
  - With epidural
- Covering attending will:
  - Act on behalf of primary attending in an emergency
  - Document at beginning and end of coverage period
- Primary attending must come in immediately when called by covering attending

Oxytocin Use

- When initiating – document need based on evaluation and assessment
- Document agreement between covering and primary attendings to start oxytocin
- Continuous fetal monitoring required
- *Latent phase* – reassess and document every 8 hours
- *Active phase* – reassess and document every 2 hours
- Discontinue for non-reassuring FHR

Suspected Macrosomia

- Recommend C/S for:
  - EFW >4500 grams in *diabetic* mothers
  - EFW >5000 grams in *non-diabetic* mothers

Best Practices for Obstetrics

Refusal of Treatment

- Document when patient refuses C/S or any recommended procedure

Operative Vaginal Delivery

- Do not attempt if:
  - EFW >4000 grams in *diabetic* mothers
  - EFW >4500 grams in *non-diabetic* mothers
- Pre-op requirements:
  - Instrumentation privileges
  - OR availability, if C/S necessary
  - Examined for position
  - Station at least +2
  - Cervix fully dilated
  - Pelvis clinically adequate
  - Analgesia adequate
  - Bladder empty
- Use forceps ***or*** vacuum – NOT both
- Perform vacuum delivery only after 34 weeks
- Limit to 3 pop-offs or complete lack of descent
- Document:
  - Pre-op requirements met
  - Delivery procedure in detail
  - Pop-offs, if applicable

VTOL / VBAC

- Document risk / benefit discussion and consent
- Use special caution for patients:
  - With unknown scar
  - Unregistered to the institution
  - Whose records are unavailable
- Contraindications:
  - Prior upper segment incision
  - Prior T-incision
  - Prior uterine rupture or dehiscence
  - Clinical assessment of inadequate pelvis

Management of Twins

- Inability to monitor second twin precludes trial of labor
- Must deliver in OR

Elective Deliveries

- Singletons – not before 39 weeks without FLM results
- Twins – not before 38 weeks without FLM results

taking the course before they were credentialed to work on labor and delivery. For those who failed the course, opportunities were provided to retake the course and the final examination. A mandatory refresher course is currently being rolled out.

4. Team training

An outside consultant met with the chairmen, and then provided several days of team training activities at each hospital between 2007 and 2008. These sessions were valuable but the challenge of implementing team training persisted. In an effort to advance the team-training concept, 1 institution was identified to develop further expertise. In April 2010, an interdisciplinary labor and delivery team (including obstetricians, anesthesiologists, and nurses) participated in the TeamSTEPPS (Team Strategies & Tools to Enhance Performance & Patient Safety) program. Subsequently, the team integrated the knowledge gained into their routine unit activities. Additionally and importantly, this core team worked to develop an abbreviated, high-yield, comprehensive team training program that was subsequently used to train interdisciplinary teams of trainers in each of the remaining departments within the collaborative.

5. Simulation education

One institution developed a broad simulation training program for obstetric patient safety. This team worked to develop simulation expertise and demonstrated that simulation can be used to improve provider performance, communication, and documentation.[13,14,15] Subsequently, the team went on to develop and implement a 1-day interdisciplinary comprehensive obstetric simulation course modeled after the one described by Draycott and colleagues in the United Kingdom, which was shown to decrease brachial plexus injury and hypoxic ischemic encephalopathy.[16] The course has been delivered to teams

who provide care on labor and delivery including attending and resident physicians, certified nurse midwives, physician assistants, and registered nurses. Obstetric emergencies simulated include shoulder dystocia, emergent operative vaginal delivery, eclamptic seizure, and postpartum hemorrhage. Each event is simulated with attention to knowledge, technical skill, team function, communication, and preparedness. The chosen topics are all amenable to simulation and are highly relevant to the goal of improving patient safety and quality in obstetrics as these emergencies contribute heavily to perinatal and maternal morbidity and mortality. All obstetric physician and nursing staff are required to complete the course and more recently, neonatology and obstetric anesthesia staff are participating. Training of trainers from participating institutions is under way to allow for broad implementation of the developed obstetric simulation curriculum across the collaborative. All obstetrical staff (physicians and nurses) at all participating institutions are now required to participate in simulation training.

6. Documentation (Checklists, EMRs)

We have developed, piloted, and improved upon a variety of electronic medical records (EMRs) throughout the collaborative. One institution uses a unique prenatal EMR (AS OBGYN, AS Software, Inc., Fort Lee, NJ) to assure that crucial, current patient information from antenatal care settings is immediately available on labor and delivery.[17] Two of the other collaborating sites utilize and are improving on an intrapartum EMR that includes an inpatient and outpatient link (PeriBirth, PeriGen, Inc., Princeton, NJ). Both of these EMRs help support legible and complete documentation, as well as enhance clinical decision making. As these systems are perfected, both will be shared with collaborating institutions in order to improve documentation and clinical care.

Ongoing personalized feedback is provided to each practitioner to encourage improvement with documentation in future reports.

E. Monitoring with ongoing audit and feedback

Each individual provider is part of an audit and feedback system that is a unique aspect of the program, one that allows for monitoring of adherence to best practices and patient outcomes. Individualized provider feedback also serves as a part of the intervention. In 2008, our interinstitutional Obstetric Quality Improvement Committee staffed in part by FOJP research associates, began performing quarterly chart audits in obstetrics to evaluate the quality of care as well as compliance with documentation guidelines. An extensive clinical and process of care database is constructed each quarter. Data elements include: patient demographics, co-morbidities, prenatal care, labor progress (time in each stage of labor), method of delivery (operative, vaginal, cesarean section), medication use, complications, outcomes, hospital length of stay for mother and infant (including ICU/NICU use), laboratory test results, as well as adherence to chart documentation guidelines.

Each quarter the delivery logs from each hospital are reviewed and deliveries are entered into spreadsheets, and a random number generator is used to develop the sample population. Each attending physician had 5 of their deliveries reviewed quarterly. After the first 2 quarters of data collection, sampling methodology was changed and all shoulder dystocia cases were included in an attempt to oversample and extensively review these important cases. Identified charts were obtained electronically through the hospital medical records departments. Four FTE employed by FOJP (all with clinical backgrounds and MPH degrees) performed the data abstraction. Data were entered into an existing robust database that was designed to minimize data entry errors: most variables were preset drop-down menus or data buttons, and there was minimal free-text data entry. Cross-checks and quality control efforts were already in place, with a 10% resample of charts performed for quality control. Data analysis was done in SAS under the supervision of a PhD-level statistician. The database is kept in a secured data server with extensive protection including internal password requirements and external firewall protections. Data on individual provider documentation and performance are returned to departmental chairmen at each institution, and ongoing personalized feedback is provided to each practitioner to encourage improvement with documentation in future reports. Additionally, a set of "red events" (such as use of both vacuum and forceps, vacuum > 3 pop-offs or < 34 weeks gestation, oxytocin use with a Category 3 fetal heart rate) and "yellow events" (such as < 39-week delivery without indication or documentation of fetal lung maturity, inadequate second-stage documentation) have been identified and a detailed algorithm was created to allow for a standardized, escalating administrative response to such events, ranging from letters in files to, potentially, loss of privileges.

The database includes all the elements of the Adverse Outcome Index.[18] The AOI is defined as the percent of deliveries affected by 1 or more of the 10 adverse outcomes (maternal death, intrapartum or neonatal death > 2500 g, uterine rupture, maternal ICU admission, birth trauma, return to OR or labor and delivery, admission to NICU > 2500 g and for > 24 hours, Apgar score < 7 at 5 minutes, blood transfusion, third- or fourth-degree perineal tear) divided by the number of deliveries over the given time period. The Weighted Adverse Outcome Score

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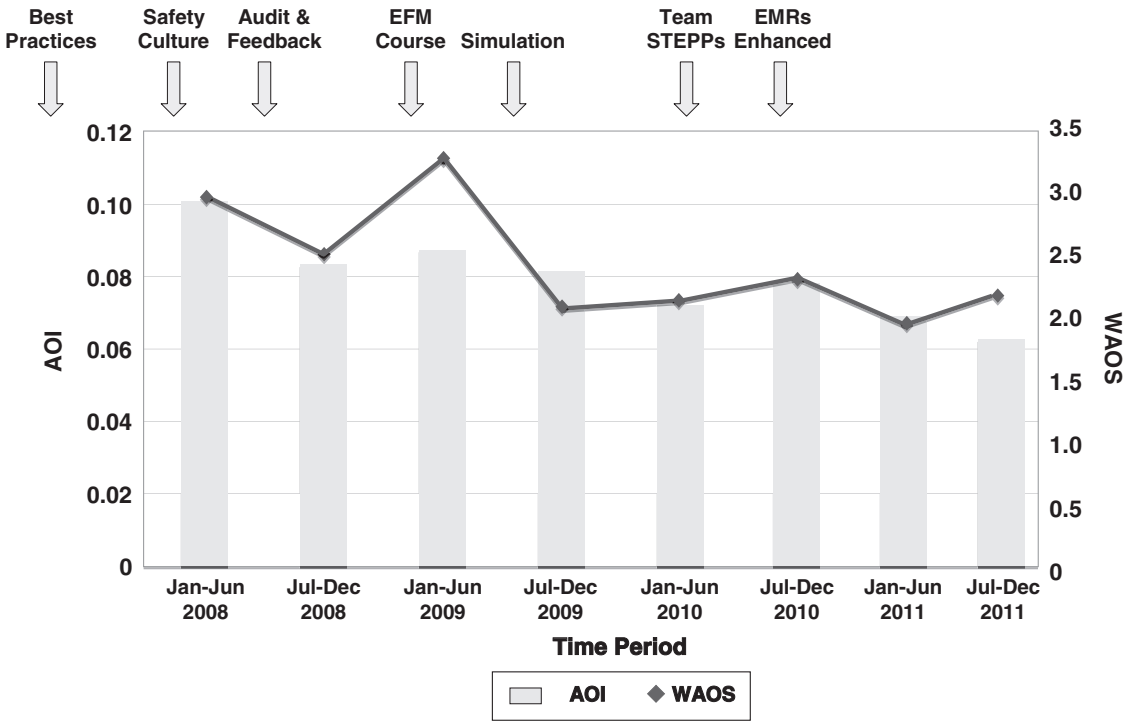
Figure 2:
Adverse outcomes over time



Note: Arrows indicate implementation dates for various safety efforts as described in the text.

(WAOS) describes the adverse event score per delivery, the sum of the points assigned to cases with adverse outcomes divided by the number of deliveries. For our purposes, the AOI and WAOS were calculated based on the percentage of deliveries effected by 1 or more adverse outcome and the sum of the points assigned to cases with adverse outcomes, respectively, as a proportion of sampled deliveries.

The Student's *t*-test for unpaired samples was performed to determine whether there was a change over time for individual adverse outcomes as well as the aggregate AOI and WAOS score comparing the July–December 2011 data with the data from January–June 2008. To correct for any bias due to multiple testing, we used the false discovery rate (FDR) method[19] that determines a cutoff based on the expected proportion of false positives incurred when calling that feature significant. For this analysis, an FDR cutoff of 5% was used to determine significance. All analyses were conducted using SAS 9.1.3 (SAS Institute Inc., Cary, NC).

RESULTS

We demonstrated the successful development and initiation of the complex, multifaceted program described in detail earlier. The leadership team collaboratively developed and disseminated consensus best practices using a standardized educational intervention. We implemented a mandatory online electronic fetal monitoring curriculum that was developed and completed by interdisciplinary team members. We also introduced team training, simulation education, and documentation solutions, and developed and incorporated a robust system for audit and feedback into our quality and safety structure.

We sampled 19 189 deliveries from participating institutions beginning in January 2008 and ongoing semiannually through December 2011. Data from 4813 deliveries in our baseline and most recent time period are presented. The overall AOI for our institutions decreased 42% from baseline (January–June 2008) to the most recently reviewed time period (July–December 2011) (10.7% vs 6.2%, $p < 0.001$). The WAOS also decreased during the same time period (3.9 vs 2.3, $p = 0.001$) (see **Figure 2**). Statistically significant improvement was seen in 4 of the 10 individual components of the AOI: birth trauma, NICU admissions (≥24 hours with birth weight ≥ 2500 g and no congenital anomaly), blood transfusion, and perineal lacerations. One maternal death occurred in the most

Table 1: Adverse Outcome Index Indicators and Measured Differences Over Time

Adverse Outcomes	January–June 2008 (N = 2445)	July–December 2011 (N = 2368)	p-Value
Maternal death	0 (0)	0.04 (1)	0.49
Intrapartum/Neonatal death ≥ 2 500 g	0 (0)	(0)	—
Uterine rupture	0.08 (2)	0.04 (1)	0.58
Maternal ICU admission	0.33 (8)	0.17 (4)	0.27
Birth trauma	2.00 (49)	0.59 (14)	<0.001
Return to OR/LDR	0.61 (15)	0.30 (7)	0.10
Admission to NICU ≥ 2 500 g and for ≥ 24 hours	4.35 (106)	2.79 (66)	0.004
APGAR < 7 at 5 minutes	0.61 (15)	0.51 (12)	0.62
Maternal blood transfusion	1.63 (40)	0.93 (22)	0.03
Third-/Fourth-degree perineal tear	2.77 (68)	1.60 (38)	0.007

recently reviewed time period. Coincident with the change in sampling methodology designed to review all shoulder dystocia cases, the incidence of shoulder dystocia in the data set went from 1.8% to 3.8% with the decrease in birth trauma noted (2.0 vs 0.6, $p < 0.001$) (see **Table 1**).

DISCUSSION

Improved patient safety and liability reform are both urgently needed in obstetrics. We have explored a heretofore underutilized resource and demonstrated that it is feasible for institutions to collaborate with their liability insurance providers as well as with other institutions in an effort to accomplish both tasks. Although the process described here requires commitment, hard work, extensive collaboration, compromise, and intellectual and financial commitment from leadership at the institutional level, the departmental level and at the insurance carrier, it does lead to improved outcomes and should be implemented as widely as possible.

Audit and feedback have been studied as strategies for promoting improved safety and quality in healthcare. The most successful programs include timely, individualized, specific, written, and nonpunitive feedback to providers about adherence to clearly identified expectations.[20] Based on systematic review of the literature in obstetrics, multifaceted strategies based on audit and feedback, and facilitated by local opinion leaders, have been recommended to effectively change behavior.[21] What we describe in this article is an example of a multifaceted approach to quality improvement in obstetrics that uses timely, individualized, written, and constructive feedback to a large group of obstetric providers.

As described in the article, the change in sampling methodology designed to oversample shoulder dystocia cases after the first 2 quarters of data collection might have been expected to result in increased numbers of cases affected by birth trauma, NICU admission, APGAR < 7 at 5 minutes, blood transfusion, and third- or fourth-degree perineal tear, all of which are more commonly seen in shoulder dystocia deliveries. However, we still saw significant improvement in birth trauma, NICU admission, transfusion, and third-/fourth-degree perineal tear. This change in sampling methodology may have resulted in an underestimation in the improvement seen for these outcomes and the actual decline may in fact have been even more dramatic than demonstrated. In addition, our failure to demonstrate significant improvement in some components of the AOI (maternal death, intrapartum/neonatal death, uterine rupture, ICU admission, return to OR, Apgar < 7 at 5 minutes) is likely related to the exceedingly rare nature of these outcomes.

Our results, demonstrating decreased adverse obstetric outcomes, are consistent with those seen in other comprehensive obstetric patient safety initiatives[5,7] and collaboratives.[6,10,11] Other collaboratives described[6,10,11] had the advantage of either single governance or working under the aegis of the state. Our work shows that even without this advantage, hospitals can pool resources to enhance safety. We have described novel strategies including collaboration with our risk management advisors and professional liability insurers, the development and sharing of unique safety-related expertise at participating institutions, and the inclusion of a robust audit and feedback mechanism. Medical centers and physicians should explore collaboration with their liability insurance carrier, particularly when they share a common carrier. We have demonstrated the sustainability of our program, as data collection, monitoring, feedback, and improvement are ongoing. Additionally, we have described successful development

and implementation of our program at a wide variety of institutions, dealing with very different patient volumes, practice patterns, and patient populations, which is crucial when considering the generalizability of our approach.

Limitations include the fact that, as with most comprehensive quality and safety programs, the interventions are numerous and are introduced gradually over time. This makes it difficult to determine which components of the program have the greatest effect on patient care and outcomes. Second, while the adverse outcomes index is used frequently in this type of evaluation, there may be components of the AOI that are less reflective of quality of care, and it is probable that there are additional measures that are more reflective and that warrant further study. Finally, our data and results are based on a random sample of deliveries in a large collaborative. In the future, our goal is to move toward implementing our audit and feedback approach to include all deliveries at participating institutions, which would substantially increase both the value of audit and feedback, and the outcome database. However, the ability to develop audit and feedback using random samples of charts may prove cost effective in settings with more limited resources. We acknowledge the cost that organizations that choose to develop a similar program will have to bear initially. However, we hope that institutions will consider embarking on safety initiatives because it is in the best interests of their patients and in the hope that the reduction in adverse outcomes will ultimately translate into savings.

The results described here are encouraging, and our approach to constructing and implementing a collaborative is widely applicable. Importantly, the program we have described will achieve goals that have recently been set in statutory language in New York. The New York State 2011–2012 budget included, for the first time in many years, liability reform, that is, the creation of a "medical indemnity fund" that will pay for the future medical costs for birth-related neurological injury. More to the point, it coupled this mechanism with a requirement to implement a New York State Hospital Quality Initiative that will oversee dissemination of guidance and best practices to all hospitals. The initiative includes evidence-based practices, electronic fetal monitoring training, and team training, all of which were integral parts of our consensus best practices initiative. This type of arrangement, reform linked to safety, augurs well for obstetrical care in the country. Facilitating best practices by developing relationships among institutions should be a wave of the future.

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