Stillbirth: Knowledge and Practice among U.S. Obstetrician-Gynecologists

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Abstract

Objective To determine knowledge of U.S. obstetrician-gynecologists (OBGYNs) and individual and institutional practices regarding stillbirth.

Study Design We surveyed 1,000 members of the American College of Obstetricians and Gynecologists regarding their knowledge of risk factors and causes of stillbirth and self-rated performance in stillbirth management.

Results Of the 499 who responded, 365 currently practiced obstetrics. Knowledge regarding epidemiology, risk factors, and effective interventions to reduce stillbirth was only fair. About 30% of respondents were unaware that preeclampsia, advanced maternal age, elevated α-fetoprotein, multiple gestation, cigarette smoking, illicit drug use, and being postterm increased risk. Tests to identify stillbirth causes were not performed consistently. Forty-two percent of respondents did not review test results to determine cause. Most hospitals did not have protocols for stillbirth evaluation nor preprinted forms to obtain appropriate stillbirth tests. Stillbirth audits with feedback were rarely performed.

Conclusions OBGYN knowledge and institutional practice regarding stillbirth could be substantially improved. Residency programs need improved education regarding stillbirth. Hospitals and their OBGYN departments should focus more on stillbirth through continuing education programs and grand rounds and develop stillbirth management protocols and standardized order sheets to appropriately evaluate stillbirths. Audits that evaluate cause of death and preventability with a feedback loop focused on improvement in care should be considered.

Keywords
- stillbirth
- fetal death
- obstetric practice
- OBGYN knowledge

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Stillbirth, defined as a baby born without signs of life such as a heartbeat or respirations at or after 20 weeks' gestation, is one of the most common adverse pregnancy outcomes.[1] Approximately 26,000 stillbirths occur in the United States yearly or about 5 per 1,000 births. Historically, stillbirths occurred much more commonly with rates up to 10-fold higher compared with now. The rate of decline in the United States and other developed countries, which was most rapid between 1940 and 1980, has leveled off since then, with smaller reductions seen in recent years.[2] Prior to about 1940, it appears that most stillbirths occurred during labor and among term ($\geq$ 37 weeks) fetuses, and most of the reductions in stillbirth have occurred among this group. Currently, about half the stillbirths occur at $\leq$ 28 weeks, and 80% occur prior to 37 weeks.[3]

Causes of stillbirth include conditions such as congenital anomalies, placental dysfunction often associated with intrauterine growth restriction, preeclampsia/eclampsia, maternal diabetes, Rh disease, and fetal asphyxia secondary to several conditions.[4] Many bacterial, viral, protozoal, and fungal infections including syphilis and parvovirus have also been shown to cause stillbirth.[5] The rapid decline in stillbirths from 1940 to 1980 coincided with increases in prenatal care utilization and hospitalization for delivery, screening, and antibiotics for syphilis, improved management of medical conditions such as diabetes and hypertension, use of Rhogam to prevent Rh disease, and increased cesarean delivery rates for indications such as fetal heart rate abnormalities or prolonged labor and induction or cesarean section to prevent postterm pregnancies.[6] Despite these advances, the U.S. stillbirth rate is among the highest in developed countries, substantial disparities remain in stillbirth rates between various populations of U.S. pregnant women, and about one-third of stillbirths may be preventable.[7,8] Because of the importance of stillbirth as an outcome in modern obstetrics, and because of the potential to further reduce the U.S. stillbirth rate, we felt it important to define knowledge and practice related to stillbirth among U.S. obstetricians to make recommendations regarding continuing education that could improve care for those women with stillbirths.

Materials and Methods

Surveys were mailed in July 2011 to 1,000 members of the American College of Obstetricians and Gynecologists (ACOG). Three additional reminder mailings were sent in August, September, and October 2011 to encourage nonresponders. Of the 1,000 members mailed the survey, 600 were members of the College's Collaborative Ambulatory Research Network (CARN), a group of ACOG Fellows who agree to participate in 4 to 6 surveys every 12 months; 400 were non-CARN members. CARN members are representative (by age, gender, and geographic location) of the ACOG Fellows. Ninety percent of obstetrician-gynecologists in the U.S. are ACOG members. During the more than 20-year history of the CARN, comparisons of their responses on surveys to those of randomly selected non-CARN ACOG Fellows have rarely indicated any significant differences (Leddy et al, unpublished data).

The survey was constructed to be completed in approximately 20 minutes. Demographic questions included gender, age, years in practice, practice structure and location, and physician race. Physicians were also asked about the number of annual deliveries, about the number of stillbirths managed, and about their knowledge and management of stillbirths. Information about procedures performed following a stillbirth was also gathered. Finally, questions included physician's self-rated performance and training in stillbirth management and familiarity with stillbirth guidelines.

Data were analyzed using a statistical software package, SPSS 16.0 (SPSS Inc., Chicago, IL). The study was approved by the Drexel University Institutional Review Board. Return of the completed questionnaire indicated consent to participate in the study. Participation was voluntary, with no compensation offered to participants.

Table 1 Characteristics of practicing obstetric providers participating in the survey ($n = 335$)

Characteristics	Percentage or mean (range)[a]
CARN member?	
Yes	72.9
No	27.1
Sex	
Male	50.5
Female	49.5
Average age (y)	51.6 (36–75)
Average years in practice	19.2 (2–46)
Physician race/ethnicity	
White (non-Hispanic)	81.0
Asian/Pacific Islander	7.0
Black (non-Hispanic)	5.8
Hispanic	3.7
Other	2.4
Primary medical specialty	
General Obstetrics/gynecology	84.9
Maternal-fetal medicine	12.4
Other	3.8
Number of annual deliveries performed	
$\leq$ 50	15.6
51–75	10.9
76–100	21.2
$>$ 100	52.3
Career number of stillbirths	
0–10	41.8
11–30	38.5
$>$ 30	19.7

[a]Numbers may not add up to 100% because of rounding.

Results

We received a total of 499 responses of the 1,000 surveys mailed. There was no significant difference in terms of gender between responders and nonresponders. However, responders were older than nonresponders by nearly 3 years ($p < 0.001$). Of the 499 responders, 164 were from obstetrician-gynecologists who did not provide obstetric care. Therefore the sample for this study consisted of the 335 respondents who currently provide obstetric care. The characteristics of those respondents are shown in ►**Table 1**. Seventy-three percent of those sampled were CARN members; there were no differences in responses between CARN and non-CARN members on any question. Therefore, CARN and non-CARN samples were collapsed for further analysis. Among the 335 respondents practicing obstetrics, about 40% had in their career provided care for < 10 women with stillbirths and another 40% had provided care for 11 to 30 women with stillbirths. Only approximately 20% had provided care for more than 30 women with stillbirths.

In the United States, using 20 weeks' gestation as the lower cutoff, the stillbirth rate is about 5 per 1,000 births.[1] Nearly half the respondents answered this question about frequency correctly, but 16% estimated that stillbirths were from 4- to 20-fold more common, and 37% estimated that stillbirths were from 2- to 5-fold less common. All but 0.3% of the respondents correctly answered that most stillbirths occurred in the antenatal period. African-American women are at least twice as likely to have a stillbirth compared with white women, and most other racial/ethnic groups have only a slight increase in stillbirths compared with white non-Hispanic women.[9] That African-American women have a 2-fold increase in stillbirth compared with white women was correctly answered by 95% of the respondents. However about 20% of respondents incorrectly identified Hispanic/Latino and Native American women as having a 2-fold increase in stillbirths.

Table 2 Percent of respondents identifying various maternal conditions as a stillbirth risk factor or cause

	Respondents identifying various conditions as a risk factor or cause of stillbirth (%)
Fetal growth restriction	96.7
Previous stillbirth	94.9
Parvovirus	93.0
Post dates	87.3
Illicit drug use	85.5
Elevated α-fetoprotein	84.6
Preeclampsia/eclampsia	84.6
Multiple gestation	83.4
Pregestational diabetes	80.7
Advanced maternal age	79.5
Smoking > 5 cigarettes/d	77.4
Syphilis	70.5
Obesity	68.1
Drinking ≥ 5 alcoholic beverages/wk	54.8
Previous second-trimester spontaneous miscarriage	40.4
Coxsackievirus virus	38.3
Lyme disease	24.3
Group B streptococcus	24.3

Knowledge regarding risk factors for stillbirth was ascertained (►**Table 2**). Nearly all of the respondents were aware that a prior stillbirth (95%) and fetal growth restriction (97%) were risk factors for stillbirth. Conversely, between 10% and 20% of the respondents were unaware that multiple gestation, elevated α-fetoprotein (AFP), pregestational diabetes, preeclampsia, being postterm, advanced maternal age, and illicit drug use were also risk factors. Nearly 25% of respondents did not recognize cigarette smoking as a risk factor, 32% did not recognize obesity, 45% did not recognize alcohol consumption, and 60% did not recognize a prior second-trimester spontaneous miscarriage as risk factors.[10–13] In terms of infection, 93% recognized maternal parvovirus infections as causal for stillbirth and 70% recognized syphilis, but the majority did not know that coxsackievirus virus infection, Lyme disease, and group B streptococcus infection have also been associated with an increased risk of stillbirth.[5]

When asked the question "Which of the following are currently common causes of stillbirth accounting for > 5% of the total?" most respondents recognized congenital anomalies (86%), placental abruption (75%), and placental malfunction (71%) as fitting this category. (Conversely between 15% and 30% did not.) Fewer recognized cord accidents (65%) and preeclampsia/eclampsia (52%) as appropriate answers. Syphilis and parvovirus are rare causes of stillbirth but were thought by 25% and 12%, respectively, as causing > 5% of stillbirths. At one time, diabetes was a common cause of stillbirth, but in recent years it causes < 5% of all stillbirths.[4]

Older literature has suggested a risk for the development of a consumptive coagulopathy if more than 4 to 6 weeks elapses between the death of the fetus and delivery.[14–16] When asked about the time from fetal death to development of a coagulopathy, only about half the respondents checked "after 4 weeks" as the correct response, with all others checking some earlier time. The reason for the high number of incorrect answers might lie in the current practice related to timing of delivery; 77% of respondents said that when a stillbirth occurred prior to labor, they attempted to deliver immediately, and another 21% said they would wait several days to a week to induce if no labor occurred spontaneously. Only 1.5% said they would wait for spontaneous labor. Interestingly, for women who experienced a stillbirth with a prior cesarean delivery, 16% of respondents would deliver by repeat cesarean and 84% would allow a trial of labor.

Respondents were asked which interventions have been shown to be effective in reducing stillbirths in women at both high and low risk of stillbirth. In high-risk women, a contraction stress test and Doppler flow measurements followed by

Table 3 The frequency that obstetricians order tests for women with a stillbirth

	Always	Frequently	Sometimes/ infrequently	Never
Autopsy	32.9	43.4	23.3	0.4
Histopathological placenta examination	93.9	5.4	0.6	0.0
Karyotype	35.5	39.3	24.8	0.3
Antibody screen	79.5	10.1	8.5	1.8
Antiphospholipid antibodies	59.8	19.6	19.0	1.6
Serological test for syphilis	77.9	8.9	10.1	3.1
Screen for fetal-maternal hemorrhage	55.7	24.9	17.8	1.5
Urine toxicology screen	52.5	29.4	18.i	0.0
Parvovirus serology	34.7	22.1	39.2	4.1
Lupus anticoagulant screen	51.5	24.8	23.4	1.2
Anticardiolipin antibodies	52.3	25.5	20.6	1.6
Factor V Leiden mutation	39.9	24.9	29.9	5.3
Screen for protein C, protein S, and antithrombin III deficiency	38.6	24.9	30.8	5.6
Thyroid-stimulating hormone	43.1	20.8	30.5	5.7
TORCH titers (toxoplasmosis, rubella, cytomegalovirus, herpes simplex)	50.5	26.6	22.0	0.9
Diabetes testing	53.6	23.2	21.0	2.2

delivery for an abnormal test were believed to be effective in reducing stillbirth by 52% and 76% of the respondents, respectively. Although the data are at best suggestive, fetal movement counting was believed to be effective in reducing stillbirth in high-risk women by 59% of the respondents, and 57% believed preconception care was also effective.[17,18] On the other hand, with good evidence of effectiveness, only 31% believed that delivery at $\geq$ 41 weeks was effective in reducing stillbirths associated with a postterm pregnancy.[6,19] For every intervention, fewer of the respondents felt the intervention was as effective in reducing stillbirths in low-risk compared with high-risk women. Nevertheless, again with little evidence, more than half the respondents believed fetal movement counting in low-risk women with delivery for an abnormal test effectively reduced stillbirths and 40% believed that preconception care also reduced stillbirths in low-risk women.

Overall, 92% of respondents reported using fetal movement counting and of those who used it, about 70% use it for all pregnant patients, whereas approximately 30% use it only for those women at high risk for stillbirth such as those with a prior stillbirth history. Of those who use fetal movement counting, 92% provide their patients with a standard protocol.

►**Table 3** presents data on the tests physicians order to evaluate the cause of a stillbirth, with the responses divided into always, frequently, sometimes/infrequently, and never. Placental histology was always done by 94% of respondents followed by 80% for an antibody screen and 78% for syphilis. All the other tests were always performed by between 33% and 60% of respondents. Interestingly, autopsy and karyotype, the two tests along with placental histology that provide the most information about cause of death,[4,20] were among the least frequently performed tests.

A section of the survey dealt with hospital guidelines for management and reporting practices (►**Table 4**). Of those surveyed, 82% reported that the delivering physician filled out the stillbirth certificate with 9% completed by other health professionals. Seven percent of the respondents did not know who filled out the certificate. Only 6% of the respondents stated that the stillbirth certificate was always filled out after all tests were returned, with the majority (62%) answering that the certificate was filled out prior to the receipt of all test results, and 29% stated that the timing of completion of the certificate depended on the case. When asked if they reviewed the results of all tests 6 to 8 weeks after the stillbirth, only 58% said always, with the remainder ranging from never to frequently. Nearly half (49%) of the physicians surveyed noted that their institution had guidelines for evaluation and management of stillbirths, and the remainder said there were either no guidelines or they were unaware of any guidelines. When asked about audits being performed at their hospital for cases of stillbirth, 23% responded yes, 35% responded no, with the remaining responses divided between sometimes and rarely. When asked whether the results of the audit were used to suggest changes in practice, only 53% responded positively.

We also asked respondents to evaluate their own performances regarding care provided when a stillbirth occurred and their skills in explaining the cause of a death. About half the respondents rated their performance as comprehensive; most of the rest rated their performance as adequate. Far fewer rated their performance in poststillbirth counseling as

Table 4 Provider/hospital practices post-stillbirth

	Percentage
Who at your institution generally fills out the stillbirth certificate?	
Physician	82.4
Other health professional	9.1
Not sure	7
At your institution, when is the stillbirth certificate signed?	
After all test results are available	5.8
Before all test results such as cultures, histopathology, and autopsy are available	62.0
Depends on the case	28.5
At your hospital are there written guidelines for evaluation and management of stillbirth?	
Yes	48.8
No	34.5
Don't know	16.7
At your hospital are there preprinted orders for stillbirth tests?	
Yes	24.7
No	64.0
Don't know	11.3
How often would you estimate that you review the results of all the stillbirth tests at 6 to 8 wk after the delivery?	
Always	57.9
Frequently	30.2
Sometimes/infrequently/never	11.9
At your institution, when there is a stillbirth, is an audit performed to determine cause, to look for cases that might have been prevented, and to propose corrective action?	
Always	23.0
Frequently	18.6
Sometimes/infrequently/never	58.5
If audits are performed, are obstetric providers informed of opportunities for practice improvement?	
Yes	53.4
Don't know	26.1
Audits not performed/no	20.5

comprehensive. When asked to rate their residency training in these areas, and in interpreting fetal autopsy and other tests to parents of a stillbirth, a large percentage of respondents checked barely adequate, inadequate, or nonexistent. When asked about important sources they currently used to stay informed about advances in stillbirth screening and management, 93% choose ACOG publications as an important source, with fewer choosing journals (60%), non-ACOG practice guidelines (48%), literature/internet searches (43%), or continuing education programs (48%). However, when asked about familiarity with the recent ACOG Practice Bulletin on Management of Stillbirths,[21] only 38% claimed to have read it thoroughly.

Discussion

Stillbirth is one of the most common adverse pregnancy outcomes, and much of prenatal and labor and delivery care in the United States is aimed at its prevention. The sum of this care is primarily responsible for the about 90% reduction in stillbirths over the last 70 to 80 years.[2] However, although the risk of stillbirth in the United States is relatively low compared with historical figures, the United States ranks behind at least 30 other developed countries in stillbirth rates, and there are significant racial and income disparities in stillbirth rates within the country.[22,23] Furthermore, it is estimated that up to one-third of all stillbirths are likely to be preventable.[7] The purpose of this survey was to determine U.S. obstetricians' knowledge and practice related to stillbirth and to make recommendations regarding continuing education that would improve knowledge and practice.

Several limitations to this study should be noted. Only about 50% of those surveyed responded. As with any survey study, there is the possibility of a response bias, such that obstetrician-gynecologists who are more interested in

stillbirth issues may be more likely to respond. If this were the case, our results may have actually overestimated the knowledge of stillbirth topics among obstetrician-gynecologists. Furthermore, because stillbirths are a relatively rare occurrence, it may have been difficult for providers to accurately reflect their practices in forced choice questions or questions assessing frequency of practices (e.g., answers may reflect what providers believe they should do in the case of a stillbirth, rather than what they actually do). We also did not have the space in the survey to address several important knowledge or practice issues. However, the study also had several strengths. Most importantly, we believe we surveyed a large representative sample of obstetrician-gynecologists practicing in the United States and the results can be generalized to that population. We also addressed a wide range of topics related to knowledge and both individual and institutional practice.

Overall obstetrician awareness of the general demographics of stillbirth and risk factors for stillbirth[4,10–13] was only fair. Although most knew that a prior stillbirth and fetal growth restriction were risk factors for stillbirth, up to 30% of the respondents were unaware that preeclampsia, advanced maternal age, elevated AFP, multiple gestation, pregestational diabetes, cigarette smoking, illicit drug use, and being postterm were also risk factors for stillbirth. Even more did not recognize prior second-trimester loss, alcohol use ($>$ 5 drinks per week), and maternal obesity as risk factors for stillbirth. At least 60 organisms cause stillbirths, including many species of bacteria, viruses, fungi, and parasites. When asked about a few of these, most respondents correctly identified parvovirus as a cause of stillbirth, but 30% failed to identify syphilis, and relatively few identified coxsackievirus virus, Lyme disease, or group B streptococci as diseases or organisms that can cause stillbirth.[5] Conditions that cause $>$ 5% of stillbirths include congenital anomalies, placental malfunction, preeclampsia/eclampsia, abruption, and cord accidents. When asked to identify conditions that cause 5% or more of U.S. stillbirths, most respondents identified congenital anomalies as belonging to this group of causes. However, between 30% and nearly 50% of respondents failed to identify placental malfunction leading to fetal growth restriction, cord accidents, placental abruption, and preeclampsia/eclampsia. Diabetes was chosen by 53% of respondents, but in recent decades, because of better medical care, diabetes is thought to cause $<$ 5% of stillbirths.[4] Before the availability of antibiotics, syphilis was estimated to cause up to 20% of U.S. stillbirths, but in recent years far less than 1% of U.S. stillbirths are caused by syphilis.

Many components of modern obstetric care may contribute to the relatively low rates of stillbirths in the United States.[24,25] Although we could not evaluate knowledge regarding each of these strategies, large percentages of the respondents were apparently unaware that using interventions such as contraction stress tests or Doppler flow tests with delivery for an abnormal test were effective methods for preventing stillbirth in at least some high-risk women, and most did not recognize physician-initiated delivery at $>$ 41 weeks as effective for reducing stillbirths.[25–27] The tests used to predict potential distress in the prenatal period are widely used and credited with preventing stillbirths in many reports.[24–27] Similarly, it is now extremely common to deliver fetuses prior to 42 weeks to prevent stillbirth, so common, in fact, that births (and stillbirths) at $\geq$ 42 weeks have nearly disappeared.[6,19] Thus, there appears to be a discrepancy between actual practice, and the realization among some respondents that those practices were instituted in large part because they reduced stillbirth risk.

Preconception care is believed by many to result in improved outcomes in pregnancy and is frequently recommended as a means of reducing stillbirth.[18] And although in theory preconception care seems likely to result in a reduction in stillbirths, to date there is little evidence that preconception care improves any adverse pregnancy outcome including stillbirth.[18] Interestingly, a fairly high percentage of respondents gave preconception care credit for being effective in reducing stillbirths. Respondents similarly gave fetal movement counting high marks for effectiveness in reducing stillbirth. Although there is reasonably good evidence that prior to fetal death maternal perception of movement decreases, the evidence for effectiveness of an instituted program of fetal movement counting to reduce stillbirths is mixed at best.[28]

Historically, most stillbirths that occurred during the prenatal period were managed with observation until spontaneous labor occurred, based on the premise that induction with an unripe cervix would lead to iatrogenic infections and other complications.[14–16] Delivery was occasionally delayed as long as 4 to 6 weeks, potentially allowing time for a consumptive coagulopathy to appear. According to the results of this survey, awaiting spontaneous labor is now rarely practiced, with only 21% of respondents even waiting several days to a week for the onset of spontaneous labor to occur, before attempting to deliver. Only 1.5% of those surveyed would wait longer than a week for the onset of spontaneous labor after documenting fetal death. Although we are not sure why the move to rapid delivery has occurred, or its relative safety, we would hypothesize that with better cervical ripening and induction agents such as the various prostaglandins and more effective antibiotics to treat or prevent endometritis, the current practice of rapid delivery poses less risks than before and is likely more acceptable to the mothers and families.[16] Interestingly, in the face of a prior cesarean delivery for women with a prior stillbirth, 16% of respondents would deliver by repeat cesarean delivery. This rate was surprisingly high given that the vast majority of these women could undergo a successful induction, and even if a uterine rupture occurred, there would be no further risk to the fetus. We are aware that in certain cases of stillbirth with a prior cesarean delivery, a repeat cesarean delivery may provide the optimal result for the mother and that care should be individualized.[16]

When a stillbirth does occur, the three tests that provide the most information about causality, include autopsy; examination of the placenta, membranes, and cord; and karyotype.[20] Interestingly, with the exception of placental histopathological examination, these tests are among the

least likely to be performed with regularity. Autopsy can provide information on many causes of stillbirth not obvious from the physical examination alone such as congenital heart disease or various types of infection, and although there are many perceived barriers to autopsy, when well counseled, the autopsy rate can be increased substantially and may approach 80%.[4] A karyotype may detect chromosomal anomalies even in a structurally normal-appearing fetus and may provide the family with important information about cause and likely repetition.[4,6]

Because the autopsy, placental histology, karyotype, and many other tests are not immediately available at the time of delivery of a stillbirth, and because the large majority of stillbirth certificates are filled out prior to the return of all test results, it is highly likely that the vital statistic cause of death reports are inaccurate.[29] That only slightly more than half of the respondents claim to always review all the tests suggests that in at least some cases, even if the cause of death could be ascertained from the test results, it may not be reported. That some stillbirth certificates were filled out by providers other than the physician makes it even more likely that the vital statistics causes of fetal death data are inaccurate. Certainly we owe those who use these reports accurate data, and to the mothers and families who have experienced a stillbirth, we owe a careful review of those tests, a thorough evaluation of the cause of death, and a discussion of the results when all the data are assembled. According to the respondents, only about half the hospitals had written guidelines for evaluation and management of a stillbirth, and only 25% of the respondents had preprinted orders at their hospital for stillbirth tests. This process could be improved if each institution had written guidelines for management and evaluation of a stillbirth and preprinted orders for stillbirth tests.

Fetal death audits are often used to determine cause of fetal death and to assess potential preventability.[30,31] We therefore were interested if there was an audit process in place for stillbirths at the respondents' hospitals. Less than half of the respondents said audits were always or frequently performed. To achieve maximal benefit from this process, providers, including obstetricians and pathologists as well as other hospital staff, need to participate in this process and be informed of possible opportunities for improvement in care.[30,31] In this survey only about half the respondents claimed that this feedback was actually occurring.

Only about half the respondents felt that their current performance in relationship to stillbirth was "comprehensive," and most of the other half described their current performance as adequate. Respondents generally related their stillbirth residency training as only adequate or less in several stillbirth management areas. Although most respondents claimed they rely on ACOG publications to stay informed about advances in stillbirth screening and management, most were unfamiliar with the most recent ACOG publication in this area.

In summary, on average, the respondents' knowledge regarding the epidemiology of stillbirth, its risk factors, and interventions effective to reduce and manage stillbirth could be improved, and this situation is not very different from survey data of 10 years ago.[32] From data reported from this survey, it appears that it will take a multipronged approach to improve care for women at risk of stillbirth and for those with a stillbirth. Residency programs will need to emphasize stillbirth prevention and care to a greater extent than they have to date, and each of the continuing educational modalities will need to pay greater attention to stillbirth. This training should focus on risk factors and causes of stillbirth, effective means of stillbirth prevention, appropriate management of stillbirths once they occur—including review of tests and autopsy results and communication with the parents regarding the results. Individual practitioners will also need to take it upon themselves to improve their knowledge related to stillbirth. Hospitals and their obstetrics-gynecological departments will need to focus more on stillbirths through their continuing education programs and grand rounds, as well as developing protocols for the management of stillbirth and standardized order sheets so that each stillbirth achieves an appropriate evaluation. Development of an audit process that evaluates cause of death and preventability with a feedback loop aiming at improvement in care will also be important. With each of the individuals or institutions mentioned doing their part, we can provide better care for those women with a stillbirth and eliminate those stillbirths that are preventable.

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Conflicts of Interest

None of the authors identified any conflicts of interest related to this article.

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