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TARGET ARTICLE



## Ethics Consultation in U.S. Hospitals: A National Follow-Up Study

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### ABSTRACT

A 1999–2000 national study of U.S. hospitals raised concerns about ethics consultation (EC) practices and catalyzed improvement efforts. To assess how practices have changed since 2000, we administered a 105-item survey to “best informants” in a stratified random sample of 600 U.S. general hospitals. This primary article details the methods for the entire study, then focuses on the 16 items from the prior study. Compared with 2000, the estimated number of case consultations performed annually rose by 94% to 68,000. The median number of consults per hospital was unchanged at 3, but more than doubled for hospitals with 400+ beds. The level of education of EC practitioners was unchanged, while the percentage of hospitals formally evaluating their ECS decreased from 28.0% to 19.1%. The gap between large, teaching hospitals and small, nonteaching hospitals widened since the prior study. We suggest targeting future improvement efforts to hospitals where needs are not being met by current approaches to EC.

### KEYWORDS

Clinical ethics; empirical research; ethicist; ethics committee; health care ethics; survey

## INTRODUCTION


Serious concerns have been raised about ethics consultation (EC) practices in U.S. hospitals, the fact that ethics consultation services (ECSs) typically operate with little oversight, and the possibility that low-quality EC might harm patients (Fox, Myers, and Pearlman 2007; Dubler and Blustein 2007). The most comprehensive and widely cited study of EC to date was conducted in 1999–2000 (Fox, Myers, and Pearlman 2007). That study found, among other things, that the median number of ECs performed in U.S. general hospitals in the last year was only 3; only 5% of EC practitioners had completed a fellowship or graduate degree program in bioethics; and few ECSs were formally evaluated (Fox 2016). Such results were described as “quite dire” (Parsi and Kuczewski 2007), “sobering” (Scofield 2008), “deeply distressing,” and a “wake-up call” for the bioethics field (Dubler and Blustein 2007).

Partly motivated by these study findings, U.S. bioethics professionals have undertaken various efforts designed to improve EC practices. For example, several groups have developed EC practice standards, including the “CASES approach” by the Department of Veterans Affairs (Fox et al. 2006, 2010), standards

for “Consultation/Advisement” by the U.S. Catholic Health Association (CHA) and Ascension Health (2011), and “emerging standards for health care ethics consultation” as part of the *Core Competencies* report by the American Society for Bioethics and Humanities (ASBH 2011). ASBH has also developed a report on certification, accreditation, and credentialing of health care ethics consultants (2010); an education guide for improving EC competencies (2015); a code of ethics for ethics consultants (Tarzian and Wocial 2015); a portfolio review process to assess the competency of EC practitioners (Fins et al. 2016; Kodish et al. 2013); a case-based study guide (Bruce et al. 2018); and most recently, a certification program for health care ethics consultants (Bruce et al. 2019). Meanwhile, some organizations have begun credentialing and privileging EC practitioners at the hospital level (Acres et al. 2012; Dubler et al. 2009), while others have proposed accrediting EC services at the program level, as is done for institutional review boards (Berkowitz et al. 2016; Magnus and Fishbeyn 2015), or accrediting EC training programs (Spike 2014). And several organizations have published tools to evaluate ethics consultants or EC practices (CHA and Ascension Health

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 Supplemental data for this article can be accessed at [publisher's website](#).

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2011, 35–45; National Center for Ethics in Health Care 2011; Pearlman et al. 2016; Wasson et al. 2016).

To inform the development of future improvement strategies, national data are needed in several areas. First, there is a need for up-to-date information about current EC practices. Much has changed since 2000, when data collection for the national study was completed (Fox, Myers, and Pearlman 2007). Since that time, many studies have examined EC practices in a single U.S. institution (Bruce et al. 2011; Gorka, Craig, and Spielman 2017; Johnson et al. 2015; Johnson, Lesandrini, and Rozycki 2012; Leland et al. 2020; Moeller et al. 2012; Repenshek 2009; Robinson et al. 2017; Tapper et al. 2010; Thomas et al. 2015; Wasson et al. 2016; Watt, Kirschen, and Friedlander 2018; Winter et al. 2019). Other studies have assessed EC practices in U.S. children's hospitals (Kesselheim, Johnson, and Joffe 2015) or in institutions outside the U.S. (Chen et al. 2014; Dauwerse et al. 2014; De Panfilis et al. 2019; Jansen, Schlapbach, and Irving 2018; Muggli, Geyter and Reiter-Theil 2019; Nagao, Kadooka and Asai 2014; Schochow et al. 2014; Streuli et al. 2014). None of these studies, however, provides a national description of EC in U.S. general hospitals and how it has changed since 2000.

Second, there is a need to better understand what determines annual EC volume. The number of ECs performed each year in U.S. hospitals has been a subject of interest in the bioethics literature. Concerns have been raised about EC quality in hospitals with low consult volumes, and some ECSs have been using EC volume as a proxy measure for quality (Glover et al. 2020).

Third, bioethicists need more information about the perspectives of EC practitioners in various types of hospitals. Improvement strategies have been largely designed by members of the academic bioethics community, who typically work in large teaching hospitals. In contrast, most U.S. hospitals are small (71.3% have under 200 beds), and most (61.6%) have no academic affiliation (American Hospital Association 2016). For improvement strategies to succeed on a national level, bioethicists need to better understand the needs and interests of all EC practitioners, including those in small hospitals and nonteaching hospitals. EC practitioners' opinions relevant to EC improvement and EC training would be of particular interest.

There is also a need to understand how current EC practices compare to established practice standards, as well as various aspects of EC practices that have not been previously explored. Such information would enable bioethicists to develop improvement strategies to target specific quality gaps.

Finally, there is a need for bioethicists to understand the broader context of health care ethics programs, beyond EC. Although prior empirical studies of ethics in U.S. hospitals have focused on a single programmatic structure, activity, or model, there has been a recent trend toward integrating an organization's ethics-related activities into single, overarching health care ethics program (Fox et al. 2010; ASBH 2011, 3). To our knowledge, no prior study has examined health care ethics programs as a whole.

To help fill these knowledge gaps, we conducted a national survey study funded by a grant from the Greenwall Foundation to Altarum's Center for Ethics in Health Care. We addressed the following research questions:

1. How have EC practices in U.S. hospitals changed since 2000?
2. What are the determinants of EC volume?
3. What are the opinions of ethics practitioners relevant to EC improvement?
4. What are the opinions of ethics practitioners relevant to EC training?
5. To what extent do EC practices in U.S. hospitals adhere to established standards?
6. What about other aspects of EC that were not previously explored?
7. What are characteristics and challenges of ethics programs in U.S. hospitals, beyond EC?

This article will serve as the primary article in a series by introducing the broader study and describing its methods. The results and discussion sections of this article will focus on the first research question. Subsequent articles in this *AJOB* issue will focus on the second and third research questions (Fox and Duke 2021; Fox et al. 2021). The other four research questions will be addressed in separate publications.

## METHODS

The research design of this study replicated many of the methods used in the prior national study (Fox, Myers, and Pearlman 2007). The protocol was reviewed and deemed exempt by the institutional review board (IRB) of Chesapeake, which is now Advarra, and the Office of Human Subjects Research Protection at the National Institutes of Health.

### Sample

The study population consisted of all the general hospitals that participated in the 2016 American Hospital

**Table 1.** Description of U.S. general hospitals, sample hospitals, and participating hospitals.

Hospital category	U.S. general hospitals*		Sampled hospitals		Participating hospitals		Online survey hospitals	
	N = 4,687		N = 600		N = 462		N = 372	
	%	N	%	N	%	N	%	N
<b>Bed size</b>								
1–99	50.1	2,350	12.2	73	10.8	50	8.1	30
100–199	21.2	993	18.2	109	16.5	76	15.9	59
200–299	11.8	551	17.8	107	18.4	85	18.3	68
300–399	6.9	323	14.5	87	14.7	68	15.6	58
400–499	3.8	179	10.0	60	9.3	43	10.5	39
500+	6.2	291	27.3	164	30.3	140	31.7	118
<b>Ownership</b>								
Govt. (federal)	4.1	192	4.3	26	4.1	19	3.0	11
Govt. (nonfederal)	22.2	1,039	14.0	84	13.4	62	12.1	45
Investor-owned; for-profit	15.9	744	14.2	85	11.7	54	9.4	35
Nongovt. (not-for-profit)—church operated	10.5	494	14.0	84	15.2	70	16.7	62
Nongovt. (not-for-profit)—other	47.3	2,218	53.5	321	55.6	257	58.9	219
<b>Academic affiliation</b>								
Major teaching	6.1	284	18.8	113	21.6	100	23.1	86
Minor teaching	32.4	1,518	48.5	291	49.4	228	51.3	191
Nonteaching	61.6	2,885	32.7	196	29.0	134	25.5	95
<b>Hospital location</b>								
Rural	40.7	1,908	14.2	85	13.0	60	11.0	41
Urban	58.9	2,760	85.8	515	87.0	402	89.0	331
Unclassified	0.4	19	0.0	0	0.0	0	0.0	0

\*American Hospital Association. AHA Annual Survey Database 2016.

Association (AHA) Annual Survey of Hospitals ( $N=4,687$ ) (American Hospital Association 2016). Hospital characteristics, as obtained from this database, are shown in Table 1. The random sample included 600 hospitals, or almost 13% of U.S. general hospitals (Table 1). Mirroring the prior study, we used a stratified sampling scheme that oversampled larger hospitals.<sup>1</sup> In the prior study, the rationale for stratification was that larger hospitals were predicted to perform far more consults than smaller hospitals. In this study, we had an additional rationale: Replicating the prior sampling scheme allowed direct comparisons between the studies.

### Survey Development

EF led the development of the survey instrument and methodology with assistance from a project coordinator (EB), a technical lead (CD), and an expert panel consisting of AT; MD; Paula Goodman-Crews, MSW, LCSW; and Alexander Kon, MD, FAAP, FCCM. From February to June 2016, the project team met approximately weekly, and approximately monthly with the expert panel.

Survey development began with a literature review relevant to each research question. For the first question, we systematically reviewed the 56 questions from

the 1999–2000 survey (Fox, Myers, and Pearlman 2007) to identify questions for possible inclusion in the new survey. We presented these questions to the expert panel, along with relevant context from the literature review and the corresponding results from the prior study. The expert panel provided input on content, wording, and priority for inclusion in the survey.

### Cognitive Interviewing

The purpose of the cognitive interviewing was to identify questions that were problematic for respondents, identify wording that was unclear, assess whether respondents interpreted the questions as intended, identify potential ways to improve questions, and reduce the length of the survey. We developed a cognitive interviewing protocol then administered the survey by telephone, asking respondents to talk through each question aloud. After each round of interviewing, we discussed the feedback and made changes to the survey.

In the initial round, seven individuals who had backgrounds similar to expected study participants provided feedback. We identified additional testers by asking the first set of testers to refer us to suitable contacts at other institutions. In all, 17 individuals tested four versions of the survey.

### Pilot Testing

We piloted and iteratively refined our survey administration protocol, telephone screening questions, and

<sup>1</sup>To determine the number of hospitals sampled in each bed-size category in the AHA database, we multiplied the fraction of total beds in that category (number of beds in category/number of beds in all U.S. general hospitals) by 600 (number of hospitals in the sample).

online survey in 43 randomly selected hospitals. During the pilot we confirmed “best informants” in 17 hospitals, 16 of whom completed all or part of the survey.

### **Final Survey**

The final survey consisted of two telephone screening questions (used to determine whether the hospital had an ECS and/or an ethics program and therefore which version of the survey we would administer) plus up to 105 online survey questions. (See [Online Supplemental Appendix A](#) for a complete list of online survey questions.) For hospitals with an ECS, the online survey included 76 primary questions and 29 contingency questions (i.e., questions that were presented only if the respondent gave a particular response to a previous question). The primary questions included 31 multiple-choice questions, 8 numeric write-in questions, 5 open-text write-in questions, 4 rating questions, 2 ranking questions, and 26 multipart questions with between 2 and 15 subparts. Of the 76 primary questions in the online survey, 16 were identical or similar to questions in the prior survey. In many cases, minor wording changes were needed to accommodate, for example, differences in preceding questions or conversion to the online format. In other cases, more extensive wording changes were needed. For example, in the prior survey, “ethics consultation” was defined as “a service provided by a committee, team, or individual to address the ethical issues involved in a specific, active clinical case.” In the new survey, “ethics consultation” was defined broadly to encompass both case and noncase consultations, reflecting the definitions in the ASBH’s 2011 *Core Competencies* report. In the new study, the definition of “ethics case consultation” was similar to the definition of “ethics consultation” in the prior study. Therefore, “ethics consultation” in the prior survey became “ethics case consultation” in the new survey. Whenever different wording was used, efforts were made to preserve the meaning of the original question.

### **Data Collection**

Our data collection strategy was very similar to that of the prior study, except participants were offered the option of a telephone interview or an online survey instead of the option of a telephone interview or a faxed survey. As in the prior study, a research assistant followed a detailed protocol and script in order to

identify and confirm the “best informant,” defined as “the person who is most actively involved in ethics consultation or health care ethics at [name of hospital].” The research assistant began by telephoning each hospital and asking the operator for the ethics consultant, or, if necessary, the ethics committee, ethics service, or ethics program. If the research assistant was unable to identify a potential best informant in this way, she or he would contact the following offices sequentially: hospital administration or chief executive officer (CEO); chaplain; patient representative, patient advocate, or ombudsman.

Once a potential best informant was identified, the research assistant would contact that person by phone, briefly describe the study, then ask the person to confirm that they were the “best informant” as just defined. Self-confirmed best informants were asked whether their hospitals had an ECS, and ECS was defined as “a service provided by an individual or group in response to questions from patients, families, healthcare professionals, or other involved parties who seek to resolve uncertainty or conflict regarding value-laden concerns in health care.” Respondents with an ECS were invited to participate either online or by telephone. Those who agreed to participate online were sent a link to the online survey via e-mail; those who agreed to participate by phone were e-mailed a printed copy of the survey so they could follow along as the research assistant read the questions aloud and recorded the respondent’s answers online. Nonrespondents were sent up to three reminder e-mails. When he or she was unable to contact a potential informant, this research assistant would make various follow-up attempts by voicemail and e-mail before attempting to identify a different “best informant.”

Data collection occurred between March 2017 and September 2018.

### **Data Analysis**

We analyzed the data using SAS, version 9.3. Data were weighted by bed size category to adjust for the stratified sample using the degrees-of-freedom method to make inferences about the entire population of U.S. general hospitals (Maletta 2007); this was the same approach used in the prior national survey (Fox, Myers, and Pearlman 2007). We used a conventional content analysis approach for qualitative survey data in which responses to open-ended questions were manually coded into categories with input from multiple members of the project team. We estimated the

**Table 2.** Estimated prevalence of ethics consultation services in U.S. general hospitals ( $N = 462$ ).

Hospital category	Population estimate (% of hospitals)	Population estimate (number of hospitals)
<b>Bed size</b>		
1–99 ( <i>reference category</i> )	76.0	1,786 of 2,350
100–199	96.1**	954 of 993
200–299	97.6***	538 of 551
300–399	95.6*	308 of 323
400–499	97.7*	175 of 179
500+	97.9***	285 of 291
<b>Ownership</b>		
Govt. (federal)	100.0*	102 of 102
Govt. (nonfederal) ( <i>reference category</i> )	66.3	684 of 1,032
Investor-owned; for-profit	87.7*	683 of 778
Nongovt. (not-for-profit)—church operated	99.7***	649 of 652
Nongovt. (not-for-profit)—other	90.8***	1,928 of 2,123
<b>Academic affiliation</b>		
Major teaching	100.0***	286 of 286
Minor teaching	97.2***	1,388 of 1,428
Nonteaching ( <i>reference category</i> )	79.8	2,372 of 2,973
<b>Hospital location</b>		
Urban	97.5***	2,656 of 2,797
Rural ( <i>reference category</i> )	81.7	1,390 of 1,890
<b>TOTAL</b>	<b>86.3</b>	<b>4,046 of 4,687</b>

\* $p < .01$ .\*\* $p < .001$ .\*\*\* $p < .0001$ .

prevalence of EC nationally by extrapolating from the proportion of sampled hospitals that reported having an EC service. Descriptive statistics were used to describe hospital characteristics from the AHA database (bed size, ownership, academic affiliation,<sup>2</sup> rural/urban<sup>3</sup>) and survey measures (EC service characteristics, EC practices, and EC practitioner views). We used a two-sample  $z$ -test of proportions to assess whether the percentage of hospitals, practitioners, or cases with various characteristics changed over time. We used a series of one-way analyses of variance (ANOVAs) with contrasts and chi-squared tests to evaluate the associations between hospital characteristics and specific survey measures. All contrasts used the Scheffé method of adjustment for multiple comparisons (Scheffé 1999). We used a two-sided probability of .05 as the criterion for statistical significance.

## RESULTS

One hospital (0.2%) closed before data collection. In 79 of the 599 potentially eligible hospitals (13.2%), we were unable to confirm a “best informant,” almost always because the individual who was identified by

others as the best informants did not respond to our calls and e-mails. In 58 hospitals (9.7%), the potential best informant declined to participate. The remaining 462 hospitals completed all or part of the study, for a response rate of 77.1%. Of the 438 hospitals that indicated they had an ECS, 66 responded to the screening questions only, while 372 also responded to the online portion of the survey.

### Characteristics of Sample Hospitals

Characteristics of sample hospitals based on AHA data are shown in Table 1. There were no significant differences between sampled hospitals and participating hospitals, or between hospitals that took the online survey and all participating hospitals, for any of the demographic variables ( $z$ -test of proportions).

### Survey Responses

This study focuses on the 16 survey questions that were identical or nearly identical to questions in the prior study (Fox, Myers, and Pearlman 2007). In the following, we first report the results from the current study, including how survey responses varied based on hospital characteristics, and then analyze how survey responses compared to the prior study.

### What Is the Prevalence of ECSs?

Of all U.S. general hospitals, 86.3% had an ECS. ECS prevalence varied significantly across hospital

<sup>2</sup>Major teaching hospitals are those with a Council of Teaching Hospitals designation. Minor teaching hospitals have one or more Accreditation Council for Graduate Medical Education accredited programs, have a medical school affiliation reported to the American Medical Association, and/or have an internship or residency approved by the American Osteopathic Association.

<sup>3</sup>A rural hospital is located outside a Metropolitan Statistical Area, as designated by the U.S. Office of Management and Budget.

categories and was lower in hospitals with <100 beds, nonteaching hospitals, and rural hospitals (see Table 2).

### How Many Case Consults Did ECSs Perform in the Last Year?

Ethics case consultations were defined as follows: *Case consultations are ethics consultations that primarily pertain to a specific, active individual patient case.* The median number of case consultations performed by ECSs in the last year was 3 (mean 17.1, range 0–750). Among hospitals that had an ECS, 14.0% performed no case consultations in the last year, 66.3% performed 6 or fewer, 74.1% performed 12 or fewer, and 7.1% performed over 60. The distribution was strongly skewed to the right, as shown in Table 3.

The number of case consultations varied according to hospital bed size, academic affiliation, and urban

**Table 3.** Number of case consultations performed by ethics consultation services in the last year ( $N = 372$ ).

Number of case consultations	Percentage of hospitals
0	14.0
More than 0, up to 5	48.3
More than 5, up to 10	11.4
More than 10, up to 20	10.1
More than 20, up to 50	9.7
More than 50, up to 100	3.1
More than 100, up to 200	2.0
More than 200	1.3

versus rural location, as did the percentage of hospitals that performed zero case consultations in the last year (see Table 4). The relationship between hospital bed size and the number of case consultations was nonlinear, with the number of consults per 100 hospital beds increasing dramatically with bed size, especially for hospitals with at least 400 beds (see Figure 1).

Hospitals that had no ECS or that had not performed an EC in the last year were excluded from the remaining analyses. The results that follow are for hospitals with active ECSs (defined as ECSs that had performed at least one EC in the last year,  $N = 340$ ).

### Which EC Models Do ECSs Use?

Respondents were asked which of three models of EC best described their ECS. In most hospitals, case consultations were generally performed by a small team of individuals (65.1%), as opposed to a full ethics committee (16.3%) or an individual consultant (18.6%).

The mean percentage of case consultations that were performed using each model was 52.5% for the small team model, 21.9% for the full ethics committee model, and 25.5% for the individual consultant model. The percentage of case consultations performed using the three models varied significantly by hospital bed size, academic affiliation, and location (see Table 5).

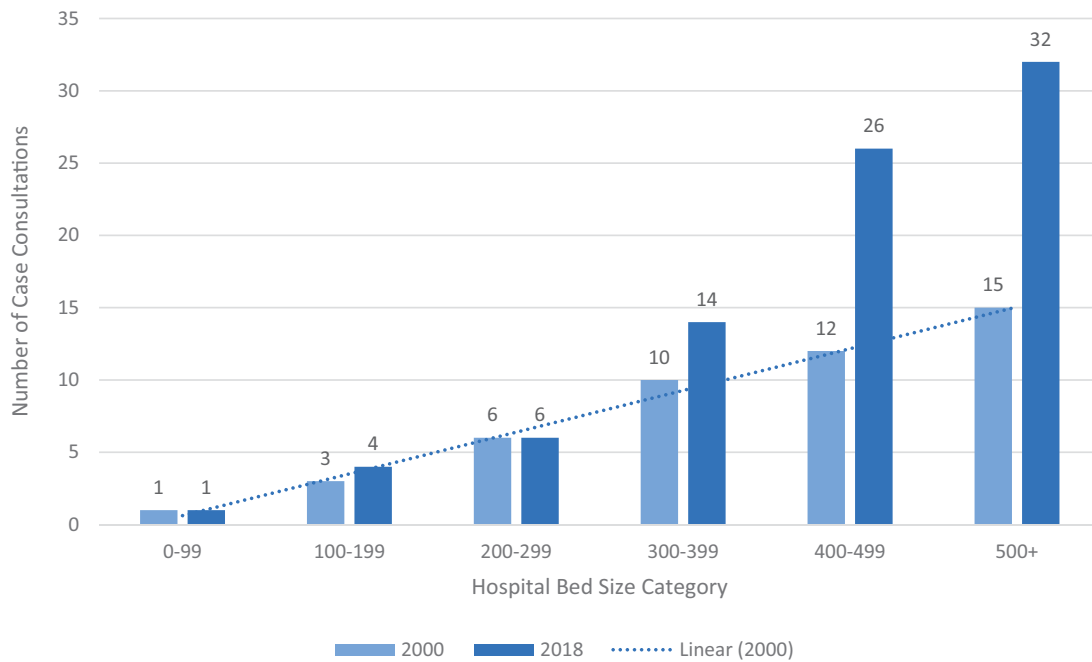
In 40.8% of hospitals, 100% of consults were performed using one model: 23.3% percent of hospitals relied exclusively on the small team model, 11.8%

**Table 4.** Number of ethics case consultations performed by hospitals in the last year, and percentage of hospitals performing zero case consultations, by hospital bed size, ownership, academic affiliation, and location ( $N = 352$ ).

Hospital category	Population estimate (number of case consultations)		Population estimate (% of hospitals)
	Median	Mean	Zero case consults in the last year
<b>Bed size</b>			
1–99	1	1.7**	27.3
100–199	4	15.8**	7.1
200–299	6	16.7**	3.1
300–399	14	27.5**	0
400–499	26.5	65.0	0
500+ (reference category)	32	74.5	0
<b>Ownership</b>			
Govt. (federal)	10	17.1	0
Govt. (nonfederal)	1	9.3	28.8
Investor-owned; for-profit	2	18.9	3.3
Nongovt. (not-for-profit)—church-operated	3	15.0	12.7
Nongovt. (not-for-profit)—other	4	20.0	13.2
<b>Academic affiliation</b>			
Major teaching	41	82.7**	0
Minor teaching	6	22.0**	10.8
Nonteaching (reference category)	2	13.0	18.1
<b>Location</b>			
Urban	6	45.0*	11.8
Rural (reference category)	2	4.2	18.5

\* $p < .05$ .

\*\* $p < .0001$ .



**Figure 1.** Median number of case consultations performed in the last year, 2000 vs. 2018.

**Table 5.** Ethics case consultations performed using the full ethics committee, small team, and individual consultant model, by bed size, academic affiliation, and location.

Hospital category	Population estimate (% of consults)		
	Case consultations (N5)		
	Full ethics committee model	Small team model	Individual consultant model
<b>Bed size</b>			
1–99	26.9	53.9	19.1
100–199	25.5	44.1	30.5
200–299	20.5	60.9	18.6
300–399	13.7	62.2	24.1
400–499	8.1	44.9	47.0
500+	8.5	51.6	39.8
<b>Ownership</b>			
Govt. (federal)	23.0	53.3	23.8
Govt. (nonfederal) ( <i>reference category</i> )	49.9	36.9	13.2
Investor-owned; for-profit	9.2**	66.8	24.0
Nongovt. (not-for-profit)—church-operated	11.2**	64.8	24.0
Nongovt. (not-for-profit)—other	22.8**	47.5	29.8
<b>Academic affiliation</b>			
Major teaching	5.4**	48.8	45.8*
Minor teaching	15.6**	54.0	30.4*
Nonteaching ( <i>reference category</i> )	29.4	52.0	18.6
<b>Location</b>			
Urban	15.8*	54.6	29.6*
Rural ( <i>reference category</i> )	35.8	47.9	16.3

\* $p < .01$ .

\*\* $p < .0001$ .

relied exclusively on the full ethics committee model, and 5.7% relied exclusively on the individual consultant model. Most hospitals (55.5%) never used an individual consultant model, 47.0% never used an ethics committee model, and 17.8% never used a team model. Only 20.5% of hospitals used all three models. Hospitals with <100 beds, nonteaching hospitals, and rural hospitals used fewer models compared to hospitals with 100+ beds (1.4 vs. 2.1,  $p < .0001$ ), teaching

hospitals (1.5 vs. 2.1,  $p < .0001$ ), and urban hospitals (1.6 vs. 2.1,  $p < .01$ ), respectively.

### Who Performs Case Consultations?

Respondents were asked to indicate the minimum, maximum, and average number of individuals who performed a single ethics case consult at their hospital in the last year. Across ECSs, the median response for



the average number was 4 (mean 4.6, range 1–41). The median value for the minimum number of individuals was 2 (mean 2.5, range 1–24), and the median for the maximum number of individuals was 7 (mean 7.7, range 1–45).

The total number of individuals in a hospital who had performed case consultations for the ECS within the past year ranged from 1 to 70 (median 7, mean 8.7).

Averaged across ECSs, the individuals who performed EC during the past year were described as follows: physicians (24.0%), nurses (23.0%), social workers (10.9%), chaplains (9.6%), administrators (9.3%), other health care providers (8.9%), lay people (4.1%), and “other” (4.0%). Fewer than 4% were described as attorneys (3.4%), philosophers (2.8%), or “ethicists/bioethicists” (2.0%).

Participants were asked how many individuals who performed EC in the past year completed various levels of training. Averaged across all ECSs, 8.0% had completed a fellowship or graduate degree program in bioethics, 40.3% had learned to perform EC with formal, direct supervision by an experienced member of an ECS, and 41.3% had learned independently, without formal, direct supervision by an experienced member of an ECS. On average, hospitals with 500+ beds had more individuals on the ECS who had completed a fellowship or graduate degree program in bioethics compared to hospitals with 0–299 beds (1.61 vs. 0.40–0.68,<sup>4</sup>  $p < .05$ ). Similarly, major teaching hospitals and minor teaching hospitals had more individuals with this level of training than nonteaching hospitals had (1.59 and 0.76 vs. 0.43,  $p < .05$ ). Urban hospitals had more highly trained individuals than rural hospitals had (1.08 vs. 0.44,  $p < .05$ ).

### **Characteristics of Best Informants**

Survey respondents were asked to indicate their “main role” at their hospital in an open-ended text field. In 23.7% of hospitals, respondents’ main role included the term “ethics” or a similar term such as “ethicist,” “bioethics,” or “bioethicist.” Large hospitals with 400+ beds and major teaching hospitals were more likely to have respondents with a primary “ethics” role (38.3% of large hospitals vs. 13.7% of smaller hospitals; 43.1% of major teaching hospitals vs. 18.5% of minor teaching hospitals and 12.1% of nonteaching hospitals).

<sup>4</sup>Range reflects means across the relevant bed size categories.

### **Is Financial Support for ECSs Sufficient?**

In just over half of hospitals (56.5%), respondents thought the financial support devoted to EC at their hospital was sufficient. Respondents in hospitals with 500+ beds were much less likely to think support was sufficient than respondents in hospitals with 1–99 beds (31.7% vs. 70.6%,  $p < .0001$ ). The percentage that thought support was sufficient was also lower in major teaching hospitals than in nonteaching hospitals (34.0% vs. 62.9%), and lower in urban hospitals than in rural hospitals (41.5% vs. 67.9%).

### **What Are ECSs’ Policies regarding Access?**

In 100% of hospitals, respondents indicated that anyone involved in a case can request an EC.

Very few ECSs required permission from the patient or surrogate (0.2%) or from the patient’s attending physician of record (2.4%) prior to EC. Only 25.3% of ECSs required notification of the patient or surrogate, whereas 55.1% required notification of the attending physician.

### **How Do ECSs Gather Information?**

The vast majority of ECSs (91.2%) “often” or “always” had one-on-one discussions with members of the clinical staff, whereas 70.0% “often” or “always” had one-on-one discussions with patients or family members. And while 93.2% of ECSs “often” or “always” directly examined the patient’s chart/health record, only 63.1% “often” or “always” directly observed the patient. Two-thirds of ECSs (67.2%) “often” or “always” used group meetings involving clinical staff, compared to group meetings involving the patient (30.5%) or the family (45.7%).

### **What Recommendations Are Made by ECSs?**

The “end result” of ECs varied widely, both between and within ECSs (see Table 6). In 14.6% of hospitals, the ECS never recommended a single best course of action, while in 7.7% of the hospitals, the ECS recommended a single best course of action 100% of the time. In 74.3% of hospitals the ECS made no specific recommendation 0% of the time, whereas in 0.9% of hospitals the ECS made no recommendation 100% of the time. On average, ECSs recommended a single best course of action for 46.3% of cases, described a range of acceptable actions for 49.6% of cases, and made no recommendation for 4.1%.

**Table 6.** Actions recommended in ethics consultation: Percentage of ethics consultation services reporting various frequencies of three different end results.

End result (N = 306)	Frequency with which each end result occurred, % (numbers in parentheses are results for the prior study)						
	0% of cases	1–20% of cases	21–40% of cases	41–60% of cases	61–80% of cases	81–99% of cases	100% of cases
Recommend a single best course of action	14.6 (25)	12.49 (10)	10.9 (11)	32.54 (15)	16.1 (19)	5.6 (5)	7.7 (14)
Specify a range of acceptable actions	8.9 (22)	17.2 (15)	13.3 (20)	28.51 (15)	13.4 (12)	5.9 (1)	12.7 (16)
Make no specific recommendation	74.3 (65)	21.9 (17)	2.4 (7)	0.3 (4)	0.2 (1)	0.1 (1)	0.9 (6)

### What Records Are Kept by ECSs?

Averaged across all ECSs, consultations were recorded in the patient's medical record in 80.7% of cases. Medical record documentation consisted of "a brief notation" in 29.2% of cases and "a detailed case description or analysis" in 51.6% of cases. More than two-thirds of hospitals documented 100% of case consults in the medical record, while 14.2% of hospitals documented 0% of case consults in the medical record. The percentage of consults that were not documented in the medical record was higher for hospitals with <100 beds (35.7% vs. 8.4–11.8%,  $p < .0001$ ), nonteaching hospitals (27.0% vs. 9.6–11.9%), and rural hospitals (33.3% vs. 8.6%,  $p < .0001$ ).

With respect to internal record keeping, records were kept in the ECS's internal files for 90.7% of case consultations, with records consisting of a brief notation for 25.4% and a detailed case description or analysis for 65.3%. A large majority of hospitals (86.9%) kept records in their internal files for 100% of case consults, while 8.2% of hospitals kept records in internal files for 0%. About half of hospitals (48.6%) documented consults in detail in their internal files 100% of the time.

### How Are ECSs Evaluated?

Only 19.1% of hospitals reported they had a "formal process for evaluating the ECS that involved the collection and analysis of data on consultations performed." Hospitals indicating that they had a formal evaluation process were asked to describe that process. In 25.1% of responding hospitals, evaluation consisted exclusively of internal retrospective review and discussion of consults by members of the consult team or committee. Only 7.6% of hospitals mentioned surveying EC participants, 14.1% mentioned a quality review conducted by an ethics expert external to the ECS, and 26.0% mentioned use of an electronic data system. Hospitals with 1–99 beds were less likely than other hospitals (0% vs. 24.6–42.9%) and major teaching hospitals were more likely than other hospitals

(51.0 vs. 10.8–21.8%) to have a formal evaluation process ( $p < .0001$ ).

### Constructed Variables

The results of the three constructed variables derived from the survey items were as follows. Of the 86.3% of hospitals that had an ECS, 14% (or 12% of all hospitals) were inactive—that is, performed no consults in the last year. Thus, 74% of hospitals had an active ECS. By extrapolating to all general hospitals in the United States, we estimate that in a 1-year period approximately 27,000 individuals performed approximately 68,000 case consultations.

### How Have EC Practices Changed Since 2000?

Table 7 compares this study's results with results from the prior study (Fox, Myers, and Pearlman 2007). Altogether there were in total 46 comparative items, including the 16 primary questions and their subparts, and the 3 constructed variables. Notably, EC activity has increased since 2000, with a 6% increase in the prevalence of ECS, a 14% increase in the percentage of hospitals with active ECSs, and a 94% increase in the estimated annual number of case consults performed in U.S. hospitals. We also note that access to EC has increased, with 100% of hospitals allowing anyone involved in a case to request an EC, and very few hospitals requiring either the attending physician or the patient/surrogate to grant permission. In addition, compared to 2000, documentation of ECs in the medical record is now both more common and more detailed.

## DISCUSSION

Because the prior study (Fox, Myers, and Pearlman 2007) was widely perceived as a "wake-up" call, we were particularly interested in three findings from the prior study that were often cited as cause for concern: (1) The median number of ECs performed in U.S.

**Table 7.** Changes in ethics consultation (EC) in U.S. general hospitals (2000–2018).

Description of survey item	2000 Result	2018 Result	Significance (z test)
Characteristics of EC services			
1. Has an EC service (% of hospitals)	81	86.3	$p < .05$
2. Number of case consults performed in last year (median number)	3	3	
3. ECS generally uses individual consultant model (% of hospitals)	9	18.6	$p < .0001$
ECS generally uses small team model (% of hospitals)	68	65.1	NS*
ECS generally uses committee model (% of hospitals)	23	16.3	$p < .05$
4. Average number of individuals performing a single EC (median number)	4	4	
5. Individuals performing EC for hospital in past year (median number)	9	7	
6. Physicians performing EC (% of total individuals performing EC)	34	23.9	$p < .01$
Nurses performing EC (% of total)	31	22.8	$p < .05$
Social workers performing EC (% of total)	11	10.9	NS
Chaplains performing EC (% of total)	10	9.6	NS
Attorneys performing EC (% of total)	<4	<4	NS
Administrators performing EC (% of total)	9	9.4	NS
Other health care providers performing EC (% of total)	<4	8.9	$p < .01$
Lay persons performing EC (% of total)	<4	4.1	NS
Others performing EC (% of total)	<4	4.0	NS
7. EC practitioners who completed fellowship or graduate degree program (% of total)	5	8.0	NS
EC practitioners who learned with formal, direct supervision (% of total)	41	40.3	NS
EC practitioners who learned independently (% of total)	45	41.3	NS
8. Respondent's main role at the hospital includes "ethics" or similar (% of hospitals)	4	23.7	$p < .001$
9. Financial support devoted to EC is sufficient (% of hospitals)	83	56.5	$p < .0001$
Specific practices of EC services			
10. Anyone involved in a case can request an EC (% of hospitals)	95	100	$p < .0001$
11. Attending physician must grant permission prior to EC (% of hospitals)	9	2.4	$p < .001$
Attending physician must be notified prior to EC (% of hospitals)	76	55.1	$p < .0001$
Patient/surrogate must grant permission prior to EC (% of hospitals)	24	0.2	$p < .0001$
Patient/surrogate must be notified prior to EC (% of hospitals)	59	25.3	$p < .0001$
12. Often or always has one-on-one discussion with clinical staff (% of hospitals)	92	91.2	NS
Often or always has one-on-one discussion with patient/family (% of hospitals)	78	70.0	$p < .05$
Often or always directly examines patient's medical record (% of hospitals)	87	93.2	$p < .01$
Often or always directly observes the patient (% of hospitals)	54	63.1	$p < .05$
Often or always has group meeting that includes clinical staff (% of hospitals)	67	67.2	NS
Often or always has group meeting that includes patient (% of hospitals)	29	30.5	NS
Often or always has group meeting that includes family members (% of hospitals)	48	45.7	NS
13. ECS made no specific recommendation (% of cases)	13	4.1	$p < .0001$
ECS specified a range of acceptable options	41	49.6	$p < .05$
ECS recommended a single best course of action	46	46.3	NS
14. EC recorded in patient's medical record with brief notation (% of cases)	43	29.2	$p < .001$
EC recorded in medical record with detailed description or analysis (% of cases)	29	51.6	$p < .0001$
EC not recorded in medical record (% of cases)	28	19.3	$p < .01$
15. EC recorded in ECS's internal files with brief notation (% of cases)	24	25.4	NS
EC recorded in internal files with detailed description or analysis (% of cases)	59	65.3	NS
EC not recorded in internal files (% of cases)	7	9.3	NS
16. Has formal process for evaluating the ECS (% of hospitals)	28	19.1	$p < .01$
Constructed variables			
17. Has an active ECS (% of hospitals)	63	74	
18. Estimated number of individuals who performed EC in U.S. general hospitals in one year	29,000	27,000	
19. Estimated number of case consults performed in U.S. general hospitals in one year	35,000	68,000	

\*NS, nonsignificant.

general hospitals in the last year was just 3; (2) only a small percentage of EC practitioners had completed a fellowship or graduate degree program in bioethics; and (3) few ECSs were formally evaluated. The current study finds that findings (1) and (2) are unchanged, while (3) has gotten worse.

Why is it that, despite multiple improvement efforts by ASBH and many others, none of these three practices has significantly improved? We hypothesize that improvement efforts may have had their greatest impact on large hospitals and major teaching hospitals with close ties to the academic bioethics community, and relatively little impact on small, nonteaching hospitals. Several of our findings support this hypothesis.

First, this study demonstrates that all three of these findings (low number of consults, low frequency of EC practitioners with advanced training, and low frequency of formal evaluation) were much more of an issue in smaller hospitals, especially hospitals with <100 beds (which comprise 50.1% of all general hospitals in the U.S.), as well as in nonteaching hospitals (which comprise 61.6% of hospitals). The differences between hospital categories are striking. For example, among hospitals with an ECS, the mean number of case consultations performed in the past year was 1.7 for hospitals with 1–99 beds, versus 74.5 for hospitals with 500+ beds. Among hospitals with 1–99 beds, 24.0% had no ECS, versus 2.1% of hospitals with

500+ beds. Among hospitals with 1–99 beds that had an ECS, 27.3% performed zero case consultations in the past year, versus 0% of hospitals with 500+ beds. Therefore only 55.3% of hospitals with 1–99 beds performed any case consultations at all in the past year, versus 97.9% of hospitals with 500+ beds.

Moreover, the median number of case consults was unchanged for hospitals with <400 beds (which comprise 90.0% of all U.S. general hospitals), while the number for hospitals with 400+ beds more than doubled, as illustrated in [Figure 1](#). Therefore, the dramatic (94%) increase in the estimated number of case consultations performed annually, from 35,000 to 68,000, was almost entirely due to the increase in case consultations in the largest two categories of hospitals. At the same time there was also a dramatic decrease in the percent of hospitals in which financial support for EC was perceived to be sufficient (from 83% to 56.5%). Notably, in the current study, financial support is still perceived to be sufficient in most small hospitals and nonteaching hospitals, whereas in most large hospitals and major teaching hospitals, it is no longer perceived to be sufficient.

An additional example deserves mention. Compared with the prior study, the median number of individuals at each hospital who performed ECs in the past year decreased from 9 to 7, while the population estimate for the total number of individuals who performed ECs decreased by 7% (from 29,000 to 27,000). Since the total number of consults increased dramatically, it follows that the average EC practitioner is now performing far more consults. This change is likely related to the finding that the percent of hospitals that generally use the individual consultant model has doubled (from 9% to 18.6%). Large hospitals and major teaching hospitals use the individual consultant model at over twice the rate of small hospitals and nonteaching hospitals. In fact, in hospitals with 400+ beds and in major teaching hospitals, individual consultants are now performing nearly half of all EC cases.

Taken together, these findings suggest that EC practices in U.S. hospitals differ significantly based on hospital bed size and level of academic affiliation, and the gap between large and small hospitals and between teaching and nonteaching hospitals has widened since the prior study.

### Limitations

This study has several important limitations. First, while our response rate of 77.1% is quite high, it is lower than it was in the prior study (87.4%). In

addition, in 13.7% of hospitals, respondents completed the telephone screening questions but did not complete the online survey. Even though we tested multiple demographic variables and found no significant differences between sampled hospitals and participating hospitals, or between hospitals that did not complete the online survey and all participating hospitals, it is still possible that the sample was not representative of all general hospitals in the United States. Another limitation is the potential for recall bias, since respondents self-reported activities, and we presume this was primarily from memory. While respondents self-identified as the “best informant” at their hospital, they may not have had complete or accurate knowledge of some of the information asked without checking with the primary source (e.g., how many individuals who performed EC had completed a fellowship or graduate degree program in bioethics). In addition, if a hospital was part of a multihospital system or if the hospital’s ECS performed EC for other hospitals, respondents were asked to answer the survey only for the part of the ECS that served the study hospital—which could have been cognitively challenging. The survey contained mainly multiple-choice questions that may have failed to capture the full range of possible responses. For questions pertaining to EC practices, hospitals with no ECS and hospitals that performed zero case consults in the last year were excluded from analysis. This decreased the number of hospitals in the lowest bed size category to 16, reducing statistical power for this group and making generalizations about this group less precise. Finally, while efforts were made to replicate the data collection and analysis methods from the prior study, differences could have affected the validity of comparisons over time—especially differences in the context, order, and precise wording of survey items.

### Conclusion

Findings from a prior national study in 1999–2000 raised concerns about EC practices in U.S. hospitals. This study finds that, notwithstanding intervening efforts to improve EC practices, several of the concern-provoking aspects of EC practices have not significantly improved. In addition, in many respects, the gap between large and small hospitals and between teaching and nonteaching hospitals that was demonstrated in the prior study has widened. One possible explanation is that improvement efforts may have had their greatest impact in large hospitals and major teaching hospitals. Given the striking differences

between different categories of hospitals demonstrated in this study, it seems unlikely that one-size-fits-all improvement strategies will be effective in all hospitals. Future improvement efforts should be targeted to hospitals where needs are not being met by current approaches to EC.

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## DISCLAIMER

The views expressed here are those of the authors and are not necessarily a reflection of the policies of their employers.

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