



**Synthesis of Data from Alabama Board of Nursing (ABN) Approved
Continuing Education Providers on Regulatory Issues Impacting Their
Services**

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Synthesis of Data from ABN Approved Continuing Education Providers on Regulatory Issues Impacting Their Services

Introduction

Purpose

This report provides a synthesis of data, obtained by a study, on opinions of providers of continuing education (CE) in nursing about regulatory issues affecting their practice and/or services. The purpose of the study was two fold: 1) to assess the receptiveness of providers to use a new, mandated electronic system of transmitting continuing education data to the Alabama Board of Nursing (ABN) as well as the effectiveness of implementing the system; and 2) to obtain providers' opinions about other issues on regulations affecting providers' roles. The overall aim is to use findings to better facilitate operation of the electronic system, and to facilitate Board decision making relative to rules governing mandatory continuing nursing education in the interest of public safety and welfare.

Background

Mandatory Continuing Education for License Renewal

In 1989, the Alabama Legislature adopted legislation that mandated continuing education across the health professions. "The legislation affecting nursing was commonly referred to as Act 89-243 and is recorded in the *Code of Alabama, 1975 (1989; § 34-21-23 and Act 89-243)*" (Lazarus and Lee, 2006, p. 196). Commensurate with the law, regulations were developed by the Alabama Board of Nursing, approved by the legislature and incorporated into Chapter 610-X-10 of the *Alabama Administrative Code* in 1991. The regulations included policy decisions covering acceptable CE content, methods for acquiring CE credit and required contact hours (50 minutes=one contact hour) of continuing education every two years in a time frame designated by the Board. The regulations also mandated annual assessments by audit to determine licensees' compliance with the regulations, and established rules for the Board of Nursing to approve providers of continuing education for nursing. Maintenance of records of continuing education earned was required of licensees.

Criteria for approval of providers of continuing nursing education were contained in the rules and included requirements for record keeping. The rules did not require that providers directly report credit awarded to licensees to the Board until the initiation of an electronic system of reporting in 2006. This system was initiated pursuant to Chapter 610-X-1.03 (2)(e) of the *Alabama Administrative Code*.

Implementation of the electronic system was initiated in 2005 in order to meet the 2006 required date specified in the Rules. The ABN purchased scanners and software for each approved provider. Ten Board-approved providers participated in beta testing for the continuing education electronic notification system from May 26, 2005 to August 31, 2005. Upon completion of the beta testing, training sessions for use of the equipment and transfer of data were scheduled for all providers. Providers were notified of training sessions by email and letter. Sixteen training sessions were held from September to December of 2005. Both morning and afternoon sessions were offered on each training day, with each session accommodating fifty (50) providers. Of the 394 providers who were scheduled for the sessions, 295 actually completed all sections of the training. During the training session, providers received a provider card, scanner, software and an instruction manual.

Additional Issues Impacting Providers' Services

Three issues in addition to the electronic data system were addressed in the survey because of their adjunct potential to impact providers' roles and licensee requirements: 1) credit allowances (contact hours) for completing continuing education courses or programs; 2) independent study for continuing education credit; and 3) continuing education programs recommended by providers.

Each of these issues is significant because each affects the awarding of CE credit that would be equivalent to Board approved contact hours of course work completed. Currently, one contact hour is equal to 50 minutes of time. Twenty-four contact hours must be accrued by a licensee within a two year earning period as specified by the Board. Proposals have been made to change the 50 minute contact hour to a 60 minute contact hour. The issue of independent study is one of importance in that course work is conducted in a non- pedagogical environment, and credit awarded must be equivalent to that earned in a pedagogical venue. To date, there has been no formal evaluation of providers' perceptions of the manageability of altering the time frame for the contact hour or of the awarding of credit for independent study. This study invited providers to give input on their opinions of this method of continuing education study and the methodology for awarding credit.

Research Questions

Prior to developing the survey, several questions were structured to meet the purpose of the research:

1. Did the ABN approved providers experience a smooth transition regarding the implementation of the electronic system for transmission of continuing education data to the Board's website?

2. If the providers experienced a smooth transition from manual to electronic system, what factors contributed to the smooth transition?
3. Did the ABN approved providers encounter difficulties in implementing the electronic system for transmission of continuing education data to the Board of Nursing website?
4. If providers encountered problems, what factors contributed to the difficulties?
5. What areas did providers identify as needing improvement in the process of electronic transmission of continuing education data?
6. Are providers continuing to distribute certificates of contact hours earned for CE programs completed even after implementing the electronic system? If so, why?
7. Do ABN approved providers favor changing the calculation of contact hours from a 50-minute hour to a 60-minute hour? Why or why not?
8. What programs do providers wish to have the Board present or sponsor?
9. Do providers have a clear understanding of what constitutes independent study continuing education credit?

Literature Review

Research on Adoption of New Technology

Various studies have attempted to assess the receptiveness of nurses and other medical professionals to new technological advances. Fisher and Koren (2007) completed a study examining the use of personal digital assistants (PDA) in nursing clinical education. The researchers found that once the PDA technology became a tool rather than an obstacle to overcome, students found creative uses for the device in the clinical setting that led to enhancement of critical thinking and facilitation of individual learning. Respondents in a focus group on use of PDAs reported that the devices positively influenced access to clinical decision-making information at the point of care and may have reduced medication errors.

A negative perception of technology was reported in Barnard's 2000 research study as cited in Kaminski (2007). Kaminski noted Barnard's finding that technology can interfere with a nurse's ability to formulate and accomplish individual goals, approaches to patient care and principles of nursing practice, even while demanding extreme levels of time and attention on the part of the nurse. Barnard stated that the degree of commitment to the technology in terms

of time and concentration by the nurse may be inappropriate for the patient's needs as well as the clinical environment.

Kaminski (2007) reported that criticisms of the use of technology in healthcare usually center around three main issues:

- the actual system such as time consumption, inconvenient access, and volume of data,
- security issues, and
- nursing issues, such as the concern that technology distracts nurses from providing quality individualized patient care.

Kaminski asserted a factor that contributes strongly to resistance to technology is the idea of generational cohort and technological confidence. Citing the average age of nurses as 44, Kaminski suggested the potential of long-established practice patterns that may be disrupted by new technology. Kaminski (2007), however, cited Kirkley and Stein, who reported that nurses do not resist the addition of new technology per se to health care, instead, they resist the addition of additional items to their workday.

Kirkley (2004) validated previous findings when reporting that nurses have concerns about appearing incompetent when using computers in the workplace. They fear being unable to navigate the new technology smoothly while being observed by physicians, patients, and other colleagues. Nurses may also be resistant to implementation of new technology such as computerized charting because of misplaced loyalty to the traditional model of paper-and-pen documentation.

In comparison, Barr (2002) examined the management of change during an information systems transition in a healthcare setting. The author noted that having the most efficient computer system available is useless unless the user is motivated to learn how to navigate the system. Barr found that a change agent could regulate and facilitate the communication of an innovation in a healthcare setting by recognizing and capitalizing on group strengths as well as identifying and managing factors that may serve as impediments.

Rao (2007) investigated the incorporation of new technology into public funded academic and research institutes of India as well as that country's defense and steel-making industries. He reported that in order to understand a user's behavior toward a new technology, the process of technology adoption must be understood. Rao went on to discuss the technology acceptance model as a means of grasping such a concept. Originally developed by Fred Davis and Richard Bagozzi, the model suggested that users presented with a new software set are influenced by the "perceived usefulness" and "perceived ease-of-use". "Perceived usefulness" was defined as the degree to which the potential user believes that the new technology will enhance his or her job performance.

“Perceived ease-of-use” was defined as the degree to which the potential user believes that the new technology will be free from effort.

Perceived usefulness and perceived ease-of-use are believed to determine attitudes toward the adoption of a new technology. Rao noted that the attitude toward adoption was influenced by

- the perceived ease of adoption,
- apprehensiveness of the potential user,
- the perceived utilities of the new technology; and
- enjoyment of usage.

While not focusing on regulatory industries exclusively, Malhotra and Galletta’s research (1999) proposed that social influence also plays a part in the adoption and utilization of new information systems, and this research could certainly be adapted for the introduction of any new technology. The researchers further postulated that users of a new technology might both use it and accept it ineffectively if the decision to adopt the technology occurred exclusively at the top level, leaving users out of the decision-making process. Thus, users have no personal investment in the use of the new technology. Users may also lack an in-depth understanding of the capabilities of the innovation.

Literature on Current Issues in Continuing Education

The issue of changing the calculation of contact hours for continuing education arose when the American Nurses Credentialing Center’s (ANCC) Commission on Accreditation implemented changes to their criteria for awarding contact hour credit. The Commission on Accreditation implemented the changes to align continuing nursing education processes with the criteria of the Accreditation Council for Continuing Medical Education (ACCME). According to Russell (2006) nurse practitioners were initiators in changing the contact hour from 50 minutes to align with ACCME contact hours. A small number of studies have been conducted on the provision of continuing education to nurse practitioners. Charles and Mamary (2002) surveyed all advanced practice nurses in Nevada to determine practices, preferences, and barriers to the use of various continuing education delivery modes. The nurses noted their top three preferences for delivery options to be in-person conferences, print self-study, and interactive video conference. The researchers found that computer-based continuing education delivery was one of the least used options among advanced practice nurses.

Tilleczek, Pong, and Caty (2005) conducted research on the need to provide rural nurse practitioners with distance education. Although rural nurse practitioners recognized the benefits of information technology and indirectly the use of independent study techniques of instruction, study participants showed a

preference for the face-to-face instruction that would be difficult to implement in these settings.

Methodology

Research Design

A descriptive research design was selected which used inquiry to obtain data through use of an on-line survey. The research questions served as a framework for instrument development for the project. Content validity was conducted through on-staff personnel consultants who are directly associated with administration of the continuation program.

Study Population

The study population consisted of 352 ABN approved providers of continuing education. Providers were located throughout the 67 counties of the State, with some providers located in other states as well. All represented private or public businesses or institutions having vested interests in health care delivery. *The Administrative Code of the Alabama Board of Nursing, Chapter 610 X-10-.03* defines a Board-approved provider of continuing education as an entity that has submitted to the Board the required fee and a complete application demonstrating an organized plan for continuing education for nurses, a mission statement and objectives, policies and procedures for implementation of the educational programs and evaluation of them, and an educational unit having qualified personnel and adequate resources (Alabama Board of Nursing, 1991).

Instrument (Questionnaire)

For this research project, an instrument was developed using the research questions as a framework. Questions were designed to elicit information that could be addressed quantitatively and qualitatively. Questions were critiqued by in-house professional staff who have had experience in developing instruments and who are familiar with the process that was employed in the total development of the electronic program.

Data Analysis

Statistical analysis was conducted using the Statistical Package for the Social Sciences (SPSS) version 14. Data were imported into SPSS format using the assistance of systems staff.

As data were received, the quantitative responses were automatically accessed to a special SPSS file for developing frequencies and measures of central tendency where feasible. Non-parametric procedures were applied to

determine associations with dependent variables. String data were coded and similar trends were organized for qualitative analysis.

Process

On April 19 and May 16 of 2007, the ABN e-mailed an online survey to all of its active continuing education providers. Providers supplied data on their experiences in implementing the new electronic reporting system, which included a card swipe element for transmitting CE credit awarded to licensees directly to the Board office. An official request for information was issued when providers failed to complete the survey. This ultimately yielded information from all Board-approved providers. The survey consisted of both multiple choice and narrative response questions and thus produced both qualitative and quantitative data. Use of method triangulation accommodated both quantitative and qualitative analysis.

Limitations

Content validity of the items on the survey was achieved by input from professional nurses on staff. A pilot test was not conducted thus risking the potential for misinterpretation of questions by respondents. Although technical problems with return of online surveys did not occur at the ABN, technical difficulties may have been experienced at the location of each provider. This could have affected providers' ability to respond to the survey. While all approved providers (N=352) responded to the survey, all did not respond to each question. Therefore, data were analyzed on a percent response basis.

Findings

Data were organized for reporting into five categories: characteristics of the study population, ease in implementation of the electronic system, difficulties encountered in implementation of the electronic system, overall evaluation of the implementation process and other issues influencing provider services for continuing education of nurses. Descriptive methods were employed for presentation of finding.

Characteristics of the Study Population

The profile of an ABN approved continuing education provider is an entity that has been providing CE for greater than ten years and provides between five and 25 courses annually. Providers are located both in Alabama and in other states. Although some providers reported the use of outdated computer systems, none reported technology that was insufficient for the implementation of the electronic transfer process. The entire list of all Board-approved providers of continuing education to nurses and their classification according to type of provider may be found in Appendix A.

Ease in Implementing the ABN Electronic System for CE Data Transfer

Providers were asked to specify factors they perceived to facilitate a smooth transfer of data to the ABN website, including “other” to identify areas unique to their situation. Table 1 provides information on providers’ identification of specific areas contributing to a smooth transfer of information. Specific themes that emerged with data analysis included the providers’ satisfaction with the directions for the transfer process, the production of a printable roster of nurses completing each course; access to technical assistance; a reduction in the time required to complete the transfer process in comparison to the previous process used; and the familiarity of nurses with the transfer process. The area cited most frequently as contributing to a smooth implementation of the electronic system was clear-cut directions (n=132/265; 49.81%).

Table 1

Factors Contributing to Smooth Implementation of Electronic System for Reporting Data to the Alabama Board of Nursing (n=265 Respondents)		
Variables	Respondents (n)	Percentage
Directions for Electronic Process		
Directions Clear-Cut	36/265	13.58%
Directions Clear-Cut; Process faster; ABN Technical Assistance	4/265	1.51%
Directions Clear-Cut; Printable Roster Convenient; Nurses Familiar with Process	4/265	1.51%
Directions Clear-Cut; Printable Roster Convenient; Nurses Familiar with Process	4/265	1.51%
Directions Clear-Cut; Nurses Familiar with Process; ABN Technical Assistance	3/265	1.13%
Directions Clear-Cut & Other	2/265	.75%
Directions Clear-Cut; Printable Roster Convenient; ABN Technical Assistance ; Other	1/265	.38%
Directions Clear-Cut; Process faster; ABN Technical Assistance; Other	1/265	.38%
Directions Clear-Cut; Process faster; Nurses Familiar with Process; ABN Technical Assistance	1/265	.38%
Directions Clear-Cut & Printable Roster Convenient	19/265	7.17%
Directions Clear-Cut & ABN Technical Assistance	5/265	1.89%
Directions Clear-Cut & Process faster	5/265	1.89%
Directions Clear-Cut; Process faster; Printable Roster Convenient; ABN Technical Assistance	17/265	6.42%
Directions Clear-Cut; Printable Roster Convenient; ABN Technical Assistance	14/265	5.28%

Directions Clear-Cut; Process faster; Printable Roster Convenient; Nurses Familiar with Process	3/265	1.13%
Directions were Clear-Cut & Nurses Familiar with Process	1/265	.38%
Directions Clear-Cut; Process faster; Printable Roster Convenient	12/265	4.53%
Printable Roster		
Printable Roster Convenient	31/265	11.70%
Printable Roster Convenient; Nurses Familiar with Process; Other	1/265	.38%
Printable Roster Convenient & Other	1/265	.38%
Printable Roster Convenient; ABN Technical Assistance; Other	1/265	.38%
Printable Roster Convenient & Nurses Familiar with Process	1/265	.38%
Printable Roster Convenient; Nurses Familiar with Process; ABN Technical Assistance	5/265	1.89%
Printable Roster Convenient & ABN Technical Assistance	9/265	3.40%
Technical Assistance		
Technical Assistance Provided by ABN	17/265	6.42%
Process Took Less Time		
Process faster than Traditional Submission	18/265	6.79%
Process faster; Printable Roster Convenient; ABN Technical Assistance	4/265	1.51%
Process faster; Printable Roster Convenient; Nurses Familiar with Process	2/265	.75%
Process faster & Printable Roster Convenient	13/265	4.91%
Nurses Familiar with Process		
Nurses Familiar with Process	8/265	3.02%
Nurses Familiar with Process & ABN Technical Assistance	6/265	2.26%
No Response	87/352	24.72%
Other	16/265	6.04%
TOTAL	352	100%

As shown in Table 1, the most frequently cited factor contributing to a smooth transfer was clear cut directions (n=132/265; 49.81%). This was closely followed by other factors:

- printable roster very convenient (139/265; 52.45%)
- technical assistance provided by ABN (88/265; 33.21%)
- electronic process took less time (60/265; 22.64%)
- nurses were familiar with the process (39/265; 14.72%)

Difficulties Encountered by Providers in Implementing the ABN Electronic System of CE Data Transfer

Providers were asked to evaluate degrees of difficulty experienced in the electronic transfer of information to the ABN. They were also queried on reasons for difficulties and their opinion of the ABN's response to needs for assistance to correct technical difficulties. Table 2 delineates their responses. Many providers reported having no difficulty in implementing the process (n=103/346; 29.77%) and noted that the nurses attending their continuing education courses had no difficulty in swiping license cards (n=128/344; 37.21%). Of the providers who experienced difficulty and answered the question regarding need for technical assistance, 163 reported the ABN to be extremely responsive to their needs (n=163/293; 55.63%), with requests for assistance usually generating a response within one working day (n=154/256; 60.16%). Although some providers reported problems, the majority of these (n=89/234; 38.0%) stated they were primarily due to agencies' in-house computer problems and not the interagency transfer of data.

Table 2

Degrees of Difficulties and Contributing Factors in Implementing the Electronic System for Reporting Data to the Alabama Board of Nursing Transfer

Variables	Respondents (n)	Percentage
Degrees of Difficulty Assessed by Providers in Transferring Information (n=346 respondents)		
Somewhat Difficult	90/346	26.0%
No Difficulty Encountered	103/346	29.8%
Somewhat Easy	89/346	25.7%
Extremely Easy	56/346	16.2%
No Response	6/346	1.70%
TOTAL 346 (n=346)		
Specific Areas Contributing to Difficulty in Electronic Transfer of Credit Awarded (n=234 respondents)		
Multiple attempts were required to transfer information	75/234	32.0%
Agency in-house technical problems	89/234	38.0%
No receipt page to indicate information transferred	45/234	19.2%
Nurses resistant to swipe license cards	25/234	10.7%
TOTAL 234 (n=234)		

As shown in Table 2, providers identified four areas of difficulty in implementing the electronic system for data transfer to the Board of Nursing. Calculations for each section of the table were based on responses received per question. Providers clarified this by citing the primary reasons, such as operator errors; the use of outdated computer equipment; use of computers which were incompatible with the ABN computer system; as well as difficulty manipulating the card system and scanner equipment. Accompanying this finding, 75 (32.0%) stated a second problem was related to the number of attempts required to transfer information. This seemed to correspond, in-part, with licensees' efforts to properly swipe their license cards. Other in-house issues cited by providers included nurses failing to bring their license cards with them to continuing education courses, or resisting to swipe their cards.

Table 3
Responsiveness of Board of Nursing Staff to Help Resolve Difficulties Encountered by Providers in Implementing the Electronic System

Variables	Respondents (n)	Percentage
Responsiveness of ABN to Request for Technical Assistance When Difficulties were Encountered (n=293 respondents)		
Extremely Responsive	163/293	55.6%
Somewhat Responsive	44/293	15.0%
No Difficulty Encountered	83/293	28.3%
ABN Staff Not Responsive to Request for Assistance	3/293	1.0%
TOTAL 293 (n=293)		

Time Frame for ABN Staff Responding to Request for Assistance to Help Resolve Difficulties (n=256 respondents)

Within 1 Working Day	154/256	60.2%
Within 24 Hours	70/256	27.3%
Within 3 days	22/256	8.6%
Within 1 Working Week	5/256	1.9%
Staff Did Not Respond	5/256	1.9%
TOTAL 256 (n=256)		

When providers did encounter difficulties, 55.6% (n=163/293) reported that Alabama Board of Nursing staff were extremely responsive requests for technical assistance. In addition, 60.2% of providers reported that ABN staff responded to requests for assistance within one working day.

Qualitative data reinforced findings from quantitative analysis. Several providers stated that they recognized that problems encountered were due to operator error or a lack of appropriate education on the operator's part. Other providers cited their frustration with outdated computer systems at their facilities; a limited number of computers that could be used; a continuing need for their computer specialists to intervene with the transfer process; as well as errors experienced when attempting to manipulate the card reader and scanner equipment. Finally, three providers reported that they found the instruction manual confusing, with the instructions being difficult to follow. This was in contrast to the 132 who reported that directions were clear-cut and easy to follow.

Difficulties Encountered by Licensees in Implementing the ABN Electronic System of Data Transfer

Table 4 provides a profile of providers' evaluations of degrees of difficulties that licensees experienced in the process of implementing the electronic system for CE data transmission to the Board.

Table 4

Difficulties Encountered by Licensees in Implementing the Electronic System for Reporting Data to the Alabama Board of Nursing (n=344 Respondents)

Variables	Respondents (n)	Percentage
Degree of Difficulty of Licensees in Swiping License Cards		
Extremely Difficult	7/344	2.03%
Somewhat Difficult	50/344	14.53%
No Difficulty Encountered	128/344	37.21%
Somewhat Easy	67/344	19.48%
Extremely Easy	92/344	26.74%
	TOTAL 344 (n=344)	

Approximately 15% (n=57/344; 16.56%) of the providers reported that licensees expressed difficulties in swiping license cards for data transfer. The remainder expressed either no difficulties or little difficulty (n=287/344; 83.43%). Qualitative data revealed that a major problem with licensees was their failure to bring the license card to continuing education programs, thus making the process cumbersome.

Of 352 survey respondents, eight (2.27%) opted not to respond to the question regarding difficulties experienced by licensees in swiping license cards for data transfer. Data indicated that a majority of providers (n = 268/352;

78.38%) were continuing to provide certificates of course completion to the nurses who were attending their continuing education courses. Synthesis of data indicated that the primary reason for continuing to distribute the certificates was “licensees’ requests”.

Providers reported other unique factors that influenced the continuance of their distribution of certificates of CE course completion. These factors included:

- the need for a back-up system in the event of technological failure (n=5/352; .85%)
- the lack of a notification from the ABN that distribution of certificates of course completion should be discontinued (n=4/352; 1.14%)
- the requirement of course completion certificates by other disciplines attending courses (n=4/352; 1.14%)
- the requirement of course completion certificates by other agencies (n=3/352; .85%) and
- continuation of distribution of course completion certificates as a courtesy to nurses (n=3/352; .85%).

Overall Evaluation of the Implementation Process for the ABN Electronic System of Data Transfer

Providers were asked to rate the overall process of electronic transfer of information to the ABN website on a scale of 1 to 10 with one (1) being least favorable and ten (10) being most favorable. The most numerous ratings received were “10” (n=21/82; 25.61%) closely followed by “8” (n=8/82; 9.76%).

Table 5

Rating of Overall Process of Electronic Transfer of CE Information to ABN Website (“1” least favorable; “10” most favorable) (n=82 Respondents)

Variables	Respondents (n)	Percentage
Rating of 1	2/82	2.44%
Rating of 2	4/82	4.87%
Rating of 3	3/82	3.65%
Rating of 4	4/82	4.88%
Rating of 5	7/82	8.54%
Rating of 6	9/82	10.98%
Rating of 7	6/82	7.32%
Rating of 8	18/82	21.95%
Rating of 9	8/82	9.76%
Rating of 10	21/82	25.61%
TOTAL 82 (n=82)		

Of the providers who responded with an overall rating for the electronic transfer process (n=82/352; 23.30%), 57.32% of that group (N=47/82) rated the process

as “8” or higher. This provides support for the Board’s continued efforts to streamline the process of electronic transfer to an even greater degree. Of the 352 respondents to the survey, 270 did not respond to the question regarding a rating of the overall CE process.

Other Issues Influencing Provider Services for Continuing Education and the Board of Nursing

The survey yielded specific information regarding unique areas that providers believed would improve the electronic transfer of continuing education information to the ABN. Four providers reported a need to improve the actual transfer process itself; one noted that his or her comfort level was high with all areas of the process, but that the actual electronic transfer never proceeded smoothly. Two providers noted that both they and other personnel in their facility could benefit from additional training on the procedure and the equipment, while two providers cited a need for distribution of new software for the transfer process to occur periodically. One provider suggested that compact discs (CDs) be distributed along with the software updates so that instructions would be clearly delineated.

Three providers reported issues for the Board to address. One mentioned a need to decrease the amount of time required for the electronic reporting of information to the ABN; another expressed a need for providers to receive e-mail communications from the ABN; and a third noted a need for the ABN to inform nurses of the necessity of carrying their license card on their person.

Content analysis of narrative data yielded information on three specific issues pertaining to continuing education that providers wished to bring to the ABN’s attention. These included:

- decrease the amount of time required for the actual transfer process to occur, which corroborates concerns previously cited by providers regarding the specific transfer process
- provide periodic e-mail communications to providers, which the provider stated is needed because of an occasional failure to receive traditional mail from the ABN, and;
- inform nurses of the necessity of having their licenses cards available for swiping. This corroborates a concern reported frequently by providers that nurses do not recognize the need for swiping of the license card, thereby necessitating manual entry of continuing education information. No provider reported in any area of the survey that nurses who failed to provide a license card for swipe registration were refused entry into a continuing education course.

Providers were asked to describe how the ABN could facilitate them in their role as a continuing education provider. Four providers requested additional assistance with the technical aspects of electronically reporting to the ABN; two providers asked for e-mail notification from the ABN of updates and changes; one provider suggested additional education and communication from the Board; and one provider asked for an annual meeting of the providers with the ABN.

Continuing education providers identified issues specifically related to independent study hours, which had arisen since changes in the continuing education rules became effective in 2005. Identification of consistent themes occurred despite not all respondents answering the question. These included:

- confusion regarding difference between independent study and home study hours
- limits placed on continuing education hours obtained by independent study, and
- confusion regarding which hours are classified as “attended” hours.

These issues are all clarified on the ABN website under the section titled “Frequently Asked Questions”.

Providers stated their preference for or against the ABN changing the calculation of contact hours from 50 minutes equaling one contact hour to 60 minutes equaling a contact hour. As previously mentioned, this issue arose after the American Nurses Credentialing Center (ANCC) changed their criteria on contact hour calculation. Beginning January 1, 2007, providers of ANCC approved activities were required to adjust the number of contact hours to reflect one contact hour equaling 60 minutes of learning time rather than the previously approved 50 minutes. One hundred and thirty providers were agreeable to the change in calculation of a contact hour (36.93%); 208 providers (59.09%) did not favor a change; and 14 providers (3.98%) did not respond to this question. Providers who favored the change in calculation reported supporting factors of ease of calculation (n=14/352; 3.98%); the consistency of calculation continuing education time with other professions and disciplines (n=11/352; 3.13%); and the consistency with the American Nurses Credentialing Center (n=8/352; 2.27%). Providers who did not favor the change reported supporting factors of the 50-minute hour being sufficient for adult learners (n=7/352; 1.99%); nurses being accustomed to the 50 minute hour (n=4/352; 1.14%); the concern that nurses would not attend more lengthy courses (n=3/352; .85%); and the need to restructure existing programs if the change was implemented (n=3/352; .85%).

Implications

Evaluation of the implementation of new processes and procedures is essential to quality outcomes. Because the ABN has elected to use an evidence-based approach to policy decision making; research became the tool for

evaluation. The importance of this research project became clear when all 32 centers for nursing that are members of a nationwide forum of nursing workforce centers were contacted to determine if their state's Board of Nursing had the capability of receiving information electronically from continuing education providers. No forum members responded that their Board of Nursing had implemented such a system. Although some Centers have chose not to join the forum, no forum members responded affirmatively to the request for information.

Implications for future board actions emerged in relations to the research questions.

1. What factors made the process of electronic transfer of continuing education occur smoothly? A majority of providers reported that having clear-cut directions made the process of electronic transfer of information to the ABN website proceed smoothly with the convenience of having a printable roster also contributing strongly to satisfaction with the process. The number of providers who specifically cited satisfaction with the directions and the overall electronic process provides support for the continued evaluation and support of the system by the Board of Nursing. It also indicates the need to implement periodic evaluations of the electronic continuing education process across time as providers enter and exit the ABN system.

2. How difficult did providers find the electronic transfer of continuing education information to the ABN website? While many providers of continuing education to nurses reported no difficulty encountered in implementing the process of electronic transfer of information to the ABN website, an almost identical number of providers reported the process being "somewhat difficult" and "somewhat easy". Further evaluation is indicated to determine if a specific subpopulation of providers is experiencing difficulty with the electronic transfer process, and if so, which area of the transfer process is most problematic.

3. How difficult did nurses find the electronic transfer of continuing education information through swiping of their license cards? While many providers reported that nurses in his or her facility did not experience difficulty in swiping the license card to register for continuing education courses, fifty providers reported the process to be "somewhat" difficult.

Fifty-seven providers (57/352; 16.19%) reported that they noted nurses had difficulty to some degree with the swiping of license cards when registering for continuing education courses. This requires further evaluation by the Board because attendees who consistently fail to bring a license care to a continuing education offering will require a penalty of some type eventually. Another area described as contributing to difficulty encountered when using the electronic process was that of nurses resisting the swiping of their license cards. Providers also provided narrative comments reporting that nurses frequently fail to bring license cards to CE offerings. There is a possibility that licensees are, as

indicated in the literature, resistant to new technology. This, however, would need to be validated by research. Meanwhile, the accountability model (1999) adopted by the ABN holds licensees accountable for meeting continuing education requirements. Providers may find it necessary to establish a policy indicating that failure to bring the license card for registering credit earned may result in forfeiture of credit. Difficulties reported by providers in the survey will be reported to the Board at the February 2008 meeting of the Alabama Board of Nursing to allow members an opportunity to respond and formulate a strategy to provide assistance.

4. What areas need improvement in the process of electronic transfer of continuing education information? Few providers noted comments on areas that could potentially improve the process of electronic transfer of information. However, providers noted a need to improve the actual transfer sequence of the process. Four providers reported that the transfer rarely occurred smoothly for them. Also, two providers asked for additional training from the ABN staff and periodic distribution of new software related to the continuing education system. As previously noted, many providers admitted that “user error” contributed to some of the problems that they encountered during the transfer process. This area requires further evaluation by the ABN’s continuing education nurse consultant so that strategies may be developed for the ongoing support of and communication with providers. It may be necessary to implement an ongoing update of on-line training.

5. Are providers continuing to distribute certificates of completion to nurses even after participating in electronic transfer of continuing education information? Data revealed that many providers are still distributing certificates of course completion simply as a courtesy gesture to the nurses attending their continuing education courses. Providers also noted that they were continuing to distribute the certificates because no notice to discontinue the process was issued by the Alabama Board of Nursing. The primary factor that providers reported to be encouraging them to continue the distribution of paper certificates to nurses despite use of the electronic transfer process was that nurses continued to request the certificates. Providers continuing to distribute certificates may need to be reminded that licensees are accountable for the electronic recording of data earned as well as accountability for validating the credit earned that does not come from an agency within this capacity. In addition, the Board of Nursing may need to remind licensees that if they choose to earn continuing education credit from a provider that does not electronically submit information to the ABN, licensees are accountable for entering their credit earned on the Board of Nursing website.

6. Do ABN approved providers favor changing the calculation of contact hours from a 50-minute hour to a 60-minute hour? Of the providers who opted to answer this question, a majority do not favor a change in the calculation of contact hours. This area requires further evaluation to determine the

ramifications of providing continuing education contact hours that may be in conflict with those provided by other related professions as well as professional nursing organizations.

7. What programs do providers wish to have the Board present or sponsor?

Providers noted a variety of topics that would benefit them if presented as continuing education programs. These include:

- the dying patient
- ABN rules and regulations
- pain management for the terminally ill
- risk management
- legal issues
- annual provider workshop
- wound care update
- infection control
- disaster preparedness
- AIDS/HIV
- medication errors, and
- age-specific head-to-toe assessments.

The providers' request for presentations on the various topics will require consideration by the Board as well as consideration and action by the administrative staff. The requests may form the basis for a future conference if the Board chooses to address them.

8. Do providers have a clear understanding of what constitutes independent study continuing education credit?

Providers reported confusion on the difference between independent study and home study hours, the limits placed on continuing education hours obtained by independent study, and confusion on which hours are classified as "attended" hours. Implications for future research include performing a root-cause analysis to determine the cause of the persistent confusion regarding independent study as well as the most appropriate strategy to clarify the subject in a manner that will be applicable to all providers.

Conclusion

As noted in the introductory section the overall purpose of this research project was: 1) to assess the receptiveness of providers to use a new, mandated electronic system of transmitting continuing education data to the Alabama Board of Nursing (ABN) and the effectiveness of implementing the system and 2) to obtain providers' opinions about other issues on regulations affecting providers' roles. Analysis of data submitted via an online survey of continuing education providers revealed that overall providers are receptive to the use of new technology and that neither providers nor the nurses they serve were experiencing an extreme amount of difficulty with the electronic transfer process.

Although there were indications of some resistance to adoption of the new technology, the data indicate a stronger acceptance and willingness of providers and licensees to use the technology as a positive tool in data management. Using research as a means of evaluation of the new system has provided invaluable data for improving the process and for facilitating accurate reporting of earned continuing education credit.

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APPENDIX

ALABAMA BOARD OF NURSING APPROVED ACTIVE PROVIDERS OF CONTINUING EDUCATION TO NURSES ACCORDING TO TYPE OF PROVIDER

Provider Name	Type
2CU Succeed Building Habits on Purpose	Other (Health Related)
AirMed International, LLC	Other (Health Related)
Alabama Alcohol Drug Abuse Association	State Associates
Alabama Association of Rehabilitation Professionals	Other (Health Related)
Alabama Association of School Nurses Inc.	Other (Health Related)
Alabama Board of Nursing	Other (Health Related)
Alabama Coalition Against Rape	Other (Health Related)
Alabama Department of Mental Health and Mental Retardation	Mental Health Services
Alabama Department of Public Health Public Health Nursing	Public Health Agencies
Alabama Department of Public Health, Division of Health Care Facilities	Public Health Agencies
Alabama Education Enterprises	Other (Health Related)
Alabama Eye Bank	Other (Health Related)
Alabama Federation of LPN, Inc.	State Associates
Alabama Hospice Organization	Other (Health Related)
Alabama Hospital Association	State Associates
Alabama Institute for Deaf Blind	Other (Health Related)
Alabama Medicaid Agency	Regulatory Agencies
Alabama Nursing Home Association	State Associates
Alabama Organ Center	Other (Health Related)
Alabama Osteopathic Medical Association	State Associates
Alabama Psychiatric Services, P.C.	Clinics
Alabama Quality Assurance Foundation	Other (Health Related)
Alabama Southern Community College	Colleges/Universities/Schools
Alabama State Nurses Association	State Associates
Alacare Home Health and Hospice	Home Health Care
ALICEVILLE MANOR NURSING HOME	Nursing Homes
Allied Consultants and Education	Other (Health Related)
Amedisys Inc.	Home Health Care
America Hospital Association	Regional/National Associations
American Association of Critical-Care Nurses	Regional/National Associations
American Association of Nurse Anesthetists	Regional/National Associations
American Association of Occupational Health Nurses	Regional/National Associations
American Cancer Society	Other (Health Related)
American College of Nurse-Midwives	Regional/National Associations
American Health Corporation	Other (Health Related)
American Lung Association of Alabama	Other (Health Related)
American Medical Response	Other (Health Related)
American Medical Technology	Other (Health Related)
American Nephrology Nurses Association	Regional/National Associations
American Organization of Nurse Executives	Regional/National Associations

American Red Cross Birmingham Area Chapter	Other (Health Related)
American Red Cross of Central Alabama	Other (Health Related)
American Red Cross of Northwest Alabama	Other (Health Related)
American Red Cross-Gulf Coast Chapter	Other (Health Related)
American Society Of Perianesthesia	Regional/National Associations
Andalusia Regional Hospital	Hospitals/Medical Centers/Medical System
AseraCare Hospice	Home Health Care
AseraCare Hospice - Hamilton	Home Health Care
Association of Operating Room Nurses	Regional/National Associations
Association of Operating Room Nurses of South Alabama	Other (Health Related)
Association of Perioperative Registered Nurses	State Associates
Association of Womens Health, Obstetric and Neonatal Nursing	Regional/National Associations
Athens Convalescent Center	Nursing Homes
Athens-Limestone Hospital	Hospitals/Medical Centers/Medical System
Atmore Community Hospital	Hospitals/Medical Centers/Medical System
Auburn University Montgomery School of Continuing Education	Colleges/Universities/Schools
Baptist Health	Hospitals/Medical Centers/Medical System
Baptist Health System Education Department	Hospitals/Medical Centers/Medical System
Baptist Home Services	Home Health Care
Bayou La Batre Area Health Development Board, Inc.	Other (Health Related)
Bayside Continuing Education and Development	Other (Health Related)
Bevill State Community College	Colleges/Universities/Schools
Birmingham Regional Emergency Medical Services System	Other (Health Related)
Blue Cross Blue Shield of Alabama	Other (Health Related)
Bradford Health Services	Mental Health Services
Brooks Educational Resource	Self Employed Providers
Brookwood Medical Center	Hospitals/Medical Centers/Medical System
Bryan W. Whitfield Memorial Hospital	Hospitals/Medical Centers/Medical System
Bryce Hospital	Mental Health Services
Cahaba Hospice, Inc.	Hospital/Nursing Homes
Calhoun Community College	Colleges/Universities/Schools
Calhoun County Board of Education	Other (Health Related)
Capitol Hill Health Rehabilitation Center	Nursing Homes
Care Center of Opelika	Nursing Homes
Care First Inc. Home Health	Home Health Care
Cares Health Services	Outpatient Services
Caring Hands Hospice	Home Health Care
Carlette C. Smith (Human Resource Options LLC)	Self Employed Providers
Case Management Society of the Gulf Coast, Inc.	Other (Health Related)
Catholic Family Services	Other (Health Related)
Center for Domestic Preparedness (CDP) - Federal Emergency Management Agency	Other (Health Related)
Cherokee Baptist Medical Center	Hospitals/Medical Centers/Medical System
Cherokee County Nursing Home	Nursing Homes
Cherokee Medical Ctr	Hospitals/Medical Centers/Medical System
Chi Eta Phi Nursing Sorority, Sigma Eta	Other (Health Related)
Chi Eta Phi-Eta Phi Chapter	Other (Health Related)
Childrens Rehabilitation Services	Rehabilitation Centers
Chilton Medical Center	Hospitals/Medical Centers/Medical System

Citizens Baptist Medical Center	Hospitals/Medical Centers/Medical System
Clay County Healthcare Authority	Nursing Homes
CLOVERDALE HEALTH CARE, INC.	Hospital/Nursing Homes
CME Resource	Self Employed Providers
Coastal Hospice Care	Home Health Care
Coastal Insurance Risk Retention Group, Inc.	Other (Health Related)
Coffee Health Group	Hospitals/Medical Centers/Medical System
Collinsville Health Care and Rehabilitation	Nursing Homes
Columbus Hospice, Inc.	Home Health Care
Columbus Regional Healthcare System	Hospital/Nursing Homes
Columbus Specialty Hospital	Hospital/Nursing Homes
Community Hospice of Baldwin County	Home Health Care
Community Hospices of America	Home Health Care
Community Hospital, Inc.	Hospitals/Medical Centers/Medical System
Cooper Green Hospital - Jefferson Health Systems	Hospitals/Medical Centers/Medical System
Coosa Valley Baptist Medical Center	Hospitals/Medical Centers/Medical System
Cottage Senior Living, Inc.	Nursing Homes
CPSI Computer Programs and Systems, Inc.	Self Employed Providers
Crenshaw Community Hospital	Hospitals/Medical Centers/Medical System
Crestwood Medical Center	Hospitals/Medical Centers/Medical System
Critical Care Systems	Other (Health Related)
Crowne Health Care of Greenville	Nursing Homes
Cullman Health Education and Wellness Center, Inc.	Other (Health Related)
Cullman Regional Medical Center	Hospitals/Medical Centers/Medical System
D & G Associates, LLC	Other (Health Related)
D.W. McMillan Memorial Hospital	Hospitals/Medical Centers/Medical System
Dale Medical Center	Hospitals/Medical Centers/Medical System
DaySpring Hospice	Other (Health Related)
Decatur General Hospital	Hospitals/Medical Centers/Medical System
Deep South Center for Occupational Health and Safety	Rehabilitation Centers
DeKalb Baptist Medical Center	Hospitals/Medical Centers/Medical System
DeKalb Regional Medical Center	Hospitals/Medical Centers/Medical System
Dialysis Clinic, Inc.	Clinics
Diversified Nursing Services	Self Employed Providers
DVA Medical Center	Hospitals/Medical Centers/Medical System
EAP Lifestyle Management, LLC	Other (Health Related)
East Alabama Medical Center	Hospitals/Medical Centers/Medical System
Educational Services	Other (Health Related)
Elmore Community Hospital	Hospital/Nursing Homes
Emergency Medical Education, LLC	Clinics
Emergency Nurses Association	Regional/National Associations
EMS Training Center	Other (Health Related)
Evergreen Medical Center	Hospitals/Medical Centers/Medical System
F M Associates	Other (Health Related)
Fayette Medical Center	Hospitals/Medical Centers/Medical System
Flowers Hospital	Hospitals/Medical Centers/Medical System
Forest Manor, Inc.	Nursing Homes
Franklin Primary Health Center, Inc.	Other (Health Related)

Gadsden Regional Medical Center	Hospitals/Medical Centers/Medical System
Gadsden State Community College	Colleges/Universities/Schools
Gentiva Health Services	Home Health Care
Gentiva Health Services	Home Health Care
Gentiva Health Services	Other (Health Related)
Gentiva Health Services	Other (Health Related)
Gentiva Health Services, Hospice Division	Home Health Care
George C. Wallace State Community College - Dothan	Colleges/Universities/Schools
Georgiana Hospital	Hospitals/Medical Centers/Medical System
Glenwood Rehabilitation and Convalescent Center	Nursing Homes
Grand Bay Convalescent Home	Nursing Homes
Greater Birmingham Chapter of American Association of Legal Nurse Consultants	Other (Health Related)
Grove Hill Memorial Hospital	Hospitals/Medical Centers/Medical System
H H Continual Health Education	Other (Health Related)
Habiba N. Shaw	Other (Health Related)
Hale County Hospital	Hospitals/Medical Centers/Medical System
Hanceville Nursing and Rehab	Nursing Homes
Hartselle Medical Center	Hospitals/Medical Centers/Medical System
HEALTH ED, Health Education Network LLC dba Health ED	Other (Health Related)
HealthGroup of Alabama	Clinics
HealthSouth Lakeshore Rehabilitation Hospital	Rehabilitation Centers
HealthSouth Outpatient Care Center	Outpatient Services
HealthSouth Rehabilitation Hospital	Rehabilitation Centers
HealthSouth Rehabilitation Hospital of Gadsden	Hospital/Nursing Homes
HealthSouth Rehabilitation Hospital of Montgomery	Rehabilitation Centers
HealthSouth Rehabilitation Hospital of North Alabama	Rehabilitation Centers
Healthsouth Surgicare of Mobile	Self Employed Providers
HealthSpring of Alabama	Other (Health Related)
Healthspring, USA LLC - LivingWell	Clinics
Helen Keller Hospital	Hospitals/Medical Centers/Medical System
Helping Hearts Hospice, LLC	Other (Health Related)
Henderson Walton Womens Center	Clinics
Henry County Nursing Home	Nursing Homes
Heritage Health Care and Rehabilitation	Nursing Homes
Highland Medical Center	Hospitals/Medical Centers/Medical System
Hill Crest Behavioral Health Services	Mental Health Services
Home Care Association of Alabama	Other (Health Related)
Home Care Plus	Other (Health Related)
Hope Hospice, Inc.	Home Health Care
Horizons Hospice Care	Home Health Care
Hospice Complete, Inc.	Nursing Homes
Hospice Family Care	Home Health Care
Hospice of Limestone County	Home Health Care
Hospice of Marshall County, Inc.	Home Health Care
Hospice of Montgomery	Home Health Care
Hospice of North Alabama, LLC	Home Health Care
Hospice of Tennessee Valley	Other (Health Related)
Hospice of the Shoals	Home Health Care

Hospice of the Valley, Inc.	Home Health Care
Hospice of West Alabama	Home Health Care
Huntsville Hospital, Organizational Development Training	Hospitals/Medical Centers/Medical System
Huntsville Ob-Gyn Associates	Clinics
ImageSouth	Other (Health Related)
Industrial Wellness Rehabilitation Inc.	Clinics
Infirmiry Hospice Care	Home Health Care
Institute for Natural Resources	Self Employed Providers
Iota Theta Chapter of Sigma Theta Tau International, TSU School of Nursing	Colleges/Universities/Schools
J. PAUL JONES HOSPITAL	Hospitals/Medical Centers/Medical System
J.L. Scott, Inc. dba Circle Pharmacy Education Department	Other (Health Related)
Jackson Health Care Facility	Nursing Homes
Jackson Hospital and Clinic	Hospitals/Medical Centers/Medical System
Jackson Medical Center	Hospitals/Medical Centers/Medical System
Jacksonville Medical Center	Hospitals/Medical Centers/Medical System
Jefferson County Department of Health-Home Care Hospice	Public Health Agencies
Jefferson Rehabilitation and Health Center	Rehabilitation Centers
Jefferson State Community College	Colleges/Universities/Schools
Kristi McGowin/KM Enterprises	Self Employed Providers
L&J Enterprises / Consulting and Education	Other (Health Related)
L. V. Stabler Memorial Hospital	Hospitals/Medical Centers/Medical System
Lakeland Community Hospital	Hospitals/Medical Centers/Medical System
Lakeside Hospice, Inc.	Home Health Care
Lakeview Community Hospital	Hospitals/Medical Centers/Medical System
Lanier Health Services	Hospitals/Medical Centers/Medical System
LAUREL OAKS BEHAVIORAL HEALTH CENTER	Hospitals/Medical Centers/Medical System
Lawrence Medical Center Hospital - Attentus Healthcare	Hospitals/Medical Centers/Medical System
Leadership Seminars	Self Employed Providers
Licensed Practical Nurse Association of Alabama	State Associates
Lighthouse Hospice of Alabama	Home Health Care
Limestone Health Facility	Other (Health Related)
Lippincott Williams Wilkins Continuing Education Group	Publications
Long Term Hospital of Birmingham	Hospital/Nursing Homes
Long Term Hospital of Montgomery	Hospital/Nursing Homes
Lurleen B. Wallace College of Nursing and Health Sciences	Colleges/Universities/Schools
Lurleen B. Wallace Community College	Colleges/Universities/Schools
Madison Manor Nursing Home	Nursing Homes
Madison Surgery Center, LLC	Hospitals/Medical Centers/Medical System
Marion Regional Medical Center NMMC-Hamilton	Hospitals/Medical Centers/Medical System
Marshall Medical Center North	Hospitals/Medical Centers/Medical System
Marshall Medical Center South	Hospitals/Medical Centers/Medical System
Mary Starke Harper Geriatric Psychiatry Center	Mental Health Services
McGuffey Health and Rehabilitation	Rehabilitation Centers
McKenna Associates	Other (Health Related)
Medical Affiliated Research Center, Inc.	Hospitals/Medical Centers/Medical System
Medical Assurance	Other (Health Related)
Medical Center Barbour	Hospitals/Medical Centers/Medical System
Medical Center East	Hospitals/Medical Centers/Medical System

Medical Center Enterprise	Hospitals/Medical Centers/Medical System
Mercy Medical	Hospitals/Medical Centers/Medical System
Metropolitan Birmingham Emergency Nurses Association	Other (Health Related)
MHM Correctional Services	Other (Health Related)
Mid South Home Health Agency	Home Health Care
Mid South Home Health Agency, Inc.	Home Health Care
Mid South Home Health, LLC	Home Health Care
Mississippi Nurses Foundation	Regional/National Associations
Mitchell Hollingsworth Nursing and Rehabilitation Center	Rehabilitation Centers
Mizell Memorial Hospital	Hospitals/Medical Centers/Medical System
Mobile Bay Oncology Nursing Society	Other (Health Related)
Mobile Fire-Rescue Department	Hospitals/Medical Centers/Medical System
Mobile Infirmary Medical Center	Hospitals/Medical Centers/Medical System
MOBILE TECHNICAL INSTITUTE	Colleges/Universities/Schools
Monroe County Hospital	Hospitals/Medical Centers/Medical System
Montgomery Cancer Center, LLC	Outpatient Services
Montgomery Public School Nurses	Other (Health Related)
Montgomery Surgical Center	Outpatient Services
Morgan County Board of Education	Other (Health Related)
Mountain View Hospital	Hospitals/Medical Centers/Medical System
MTM Services of Alabama	Other (Health Related)
Naphcare, Inc.	Clinics
National Association Of Neonatal Nurses	Regional/National Associations
National Association of Orthopaedic Nurses	Regional/National Associations
National Association of Pediatric Nurse Practitioners	Regional/National Associations
National Association of Practice Nurse Education and Service	Regional/National Associations
National Association of Rehabilitation Nurses	Regional/National Associations
National Association of School Nurses	Regional/National Associations
National Childrens Advocacy Center	Regional/National Associations
National Council of State Boards of Nursing	Regional/National Associations
National Federation of LPNs, Inc.	Regional/National Associations
National League for Nursing	Regional/National Associations
Neonatal Network	Regional/National Associations
Neonatal Nurse Practitioner Services of Alabama, Inc.	Other (Health Related)
New Beacon Healthcare Group, LLC	Other (Health Related)
North Alabama Regional Hospital	Mental Health Services
North Baldwin Infirmary	Clinics
Northeast Alabama Regional Medical Center	Hospitals/Medical Centers/Medical System
Northport Health Services	Nursing Homes
Northwest Alabama Cancer Center	Clinics
Northwest Medical Center	Hospitals/Medical Centers/Medical System
Northwest-Shoals Community College	Colleges/Universities/Schools
NURCE Ida V. Moffett School of Nursing, Samford University	Colleges/Universities/Schools
Nurses' Homecare, Inc.	Home Health Care
Nursing CE Solutions	Self Employed Providers
Nutritional Parenteral Home Care, Inc.	Self Employed Providers
Odyssey Healthcare	Home Health Care
Oncology Nurses of Northwest Alabama	Other (Health Related)

Oncology Nursing Society	Regional/National Associations
Oncology Specialties, PC	Other (Health Related)
Park Place Nursing and Rehabilitation Center, LLC	Rehabilitation Centers
Parkway Medical Center Hospital	Hospital/Nursing Homes
Perry County Nursing Home	Hospital/Nursing Homes
Pharmacy Care Associates	Other (Health Related)
Pharmacy Partners, LLC	Other (Health Related)
Pharmacy Solutions Network, LLC	Other (Health Related)
PharMerica	Other (Health Related)
PharMerica - Birmingham	Other (Health Related)
Physicians Medical Center Carraway	Hospitals/Medical Centers/Medical System
Pickens County Medical Center	Hospitals/Medical Centers/Medical System
Piedmont Health Care Center	Nursing Homes
Pri Med Physicians, Inc.	Other (Health Related)
PRIMEDIA Healthcare	Self Employed Providers
Princeton Baptist Medical Center	Hospitals/Medical Centers/Medical System
Progressive Therapy	Other (Health Related)
Providence Hospital	Hospitals/Medical Centers/Medical System
Quality Correctional Health Care	Home Health Care
Quality of Life Health Care	Other (Health Related)
R3 Long Term Care, LLC	Other (Health Related)
Red Bay Hospital	Hospitals/Medical Centers/Medical System
Regional Rehabilitation Hospital	Rehabilitation Centers
Register Nurses Association RNA	State Associates
Restore Management Company, L.L.C.	Other (Health Related)
River City Services, Inc.	Other (Health Related)
Riverbend Center for Mental Health	Mental Health Services
Riverview Regional Medical Center	Hospitals/Medical Centers/Medical System
Roanoke Healthcare Authority dba Randolph Medical Center	Hospitals/Medical Centers/Medical System
Robinson-Adams Insurance	Other (Health Related)
Rockhurst College Continuing Education Center, Inc.	Regional/National Associations
Russell Medical Center	Hospitals/Medical Centers/Medical System
Russellville Hospital	Hospital/Nursing Homes
RxTra	Other (Health Related)
SAADS HEALTH CARE SERVICES, Inc.	Home Health Care
SafeHealth, Inc.	Self Employed Providers
Sav-A-Life	Other (Health Related)
Select Specialty Hospital	Hospitals/Medical Centers/Medical System
Self Health Care and Rehab Center, Inc.	Nursing Homes
Senior Care Pharmacy	Other (Health Related)
Seton Medical Management, Inc.	Clinics
Shelby Baptist Medical Center	Hospitals/Medical Centers/Medical System
Shelton State Community College	Colleges/Universities/Schools
Snead State Community College	Colleges/Universities/Schools
Sound Solutions	Other (Health Related)
South Baldwin Regional Medical Center	Hospitals/Medical Centers/Medical System
Southeast Alabama Council For Nursing	Regional/National Associations
Southeast Alabama Emergency Medical Services, Inc.	Other (Health Related)

Southeast Alabama Medical Center	Hospitals/Medical Centers/Medical System
Southeastern Educational Services	Self Employed Providers
Southern Council on Collegiate Education for Nursing	Regional/National Associations
Southern Patient Care	Other (Health Related)
Southern Pharmaceutical Services	Other (Health Related)
Southern Rural Health Care Consortium, Inc.	Other (Health Related)
Southern Union State Community College	Rehabilitation Centers
Southwest Alabama Disaster Medical Assistance Team, Inc.	Other (Health Related)
Southwest Alabama Medical Center	Hospitals/Medical Centers/Medical System
Specialized Medical Devices, Inc.	Other (Health Related)
Springhill Memorial Hospital	Hospitals/Medical Centers/Medical System
St. Clair Regional Hospital	Hospitals/Medical Centers/Medical System
St. Francis Hospital	Hospitals/Medical Centers/Medical System
St. Vincent's Health System	Hospitals/Medical Centers/Medical System
Stringfellow Memorial Hospital	Hospitals/Medical Centers/Medical System
Summerford Nursing Home	Nursing Homes
Sylacauga Health and Rehab Services, LLC	Nursing Homes
Talladega Health Care Center	Nursing Homes
Taylor Hardin Secure Medical Facility	Mental Health Services
Teaching Life-Long Health, LLC	Other (Health Related)
The Callahan Eye Foundation Hospital	Hospitals/Medical Centers/Medical System
The Childrens Hospital of Alabama	Hospitals/Medical Centers/Medical System
The Institute for Continuing Education	Self Employed Providers
The Medicine Chest	Other (Health Related)
The Nursing Institute Of Springhouse	Publications
The Professional Development Center	Other (Health Related)
The Surgery Center	Other (Health Related)
The Surgery Center of Huntsville	Outpatient Services
The Trauma Center at UAB	Hospitals/Medical Centers/Medical System
The University of Alabama in Huntsville-College of Nursing	Other (Health Related)
The Univ. of Ala., College of Cont. Studies, Prof. & Management Development Programs	Colleges/Universities/Schools
The Univ. of Ala., Department of OB/GYN, Continuing Education Program	Hospitals/Medical Centers/Medical System
The University of West Alabama	Rehabilitation Centers
The Village at Cook Springs	Nursing Homes
Thomas Hospital	Hospitals/Medical Centers/Medical System
Total Skin and Beauty Dermatology Center, P.C.	Other (Health Related)
Training U.S.A	Other (Health Related)
Tri State Respiratory Therapy Conferences	Other (Health Related)
Trinity Healthforce Learning	Self Employed Providers
Trinity Medical Center	Hospitals/Medical Centers/Medical System
Troy University Dothan Campus	Colleges/Universities/Schools
Troy Regional Medical Center	Hospitals/Medical Centers/Medical System
Turenne Associates	Self Employed Providers
Tuscaloosa Department Of Veterans Affairs Medical Center	Hospitals/Medical Centers/Medical System
Tuskegee University School of Nursing	Colleges/Universities/Schools
U S Health Care LLC d.b.a Gadsden Health and Rehabilitation Center	Nursing Homes
UAB Highlands	Other (Health Related)
UAB Medical Nursing CE	Hospitals/Medical Centers/Medical System

Unicare Educational Services	Self Employed Providers
University Medical Center - The University of Alabama	Colleges/Universities/Schools
UAB, Division of Neonatology, Continuing Education Program	Hospital/Nursing Homes
University of Alabama Birmingham Medical West	Hospitals/Medical Centers/Medical System
University of Alabama Birmingham University Hospital	Hospitals/Medical Centers/Medical System
University of Alabama Health Services Foundation, P.C. The Kirklin Clinic	Clinics
University of Mobile, School of Nursing	Colleges/Universities/Schools
University of North Alabama College of Nursing	Colleges/Universities/Schools
University of North Alabama, Office of Continuing Studies and Outreach	Colleges/Universities/Schools
University of South Alabama Childrens and Womens Hospital	Hospitals/Medical Centers/Medical System
University of South Alabama College of Nursing	Colleges/Universities/Schools
University of South Alabama Medical Center	Hospitals/Medical Centers/Medical System
USA Healthcare - Alabama LLC	Nursing Homes
Vaughan Regional Medical Center	Hospitals/Medical Centers/Medical System
Virginia College	Retired CE Providers
Vision Educational Resources	Other (Health Related)
Visiting Nursing Association Foundation	Regional/National Associations
Vital Care, Inc.	Home Health Care
Viva Health, Inc.	Other (Health Related)
Walker Baptist Medical Center	Hospitals/Medical Centers/Medical System
Wallace State Community College, Hanceville	Colleges/Universities/Schools
West Georgia Health System	Other (Health Related)
Western Schools	Publications
Westside Terrace Health and Rehabilitation Center	Hospital/Nursing Homes
Wiregrass HospiceHospice of the Emerald Coast	Home Health Care
Wiregrass Medical Center	Hospitals/Medical Centers/Medical System
Woodhaven Manor Nursing Home	Nursing Homes
Woodland Medical Center	Hospitals/Medical Centers/Medical System