

2005

## **Determining the Benefits of Seeking Phlebotomy Program Approval from the National Accrediting Agency for Clinical Laboratory Sciences**

Frankie Harris-Lyne  
*Old Dominion University*

Follow this and additional works at: [https://digitalcommons.odu.edu/ots\\_masters\\_projects](https://digitalcommons.odu.edu/ots_masters_projects)



Part of the [Education Commons](#)

---

### **Recommended Citation**

Harris-Lyne, Frankie, "Determining the Benefits of Seeking Phlebotomy Program Approval from the National Accrediting Agency for Clinical Laboratory Sciences" (2005). *OTS Master's Level Projects & Papers*. 126.

[https://digitalcommons.odu.edu/ots\\_masters\\_projects/126](https://digitalcommons.odu.edu/ots_masters_projects/126)

This Master's Project is brought to you for free and open access by the STEM Education & Professional Studies at ODU Digital Commons. It has been accepted for inclusion in OTS Master's Level Projects & Papers by an authorized administrator of ODU Digital Commons. For more information, please contact [digitalcommons@odu.edu](mailto:digitalcommons@odu.edu).

**DETERMINING THE BENEFITS OF SEEKING  
PHLEBOTOMY PROGRAM APPROVAL  
FROM  
THE NATIONAL ACCREDITING AGENCY FOR  
CLINICAL LABORATORY SCIENCES**

**A Research Study Presented to the Graduate Faculty of the  
Department of Occupational and Technical Studies  
at Old Dominion University**

**In Partial Fulfillment of the Requirements for the  
Master of Science**

**By**

**Frankie Harris-Lyne**

**August, 2005**

## APPROVAL PAGE

This research paper was prepared by Frankie Harris-Lyne under the direction of Dr. John M. Ritz in the course, OTED 636, Problems in Occupational and Technical Education. It was submitted to the Graduate Program Director as partial fulfillment of the requirements for the Degree of Master of Science in Occupational and Technical Studies.

APPROVAL BY: John M. Ritz  
Dr. John M. Ritz  
Advisor and Graduate Program Director

7-28-05  
Date

## TABLE OF CONTENTS

	Page
Signature Page	i
Table of Tables	iv
Table of Figures	v
CHAPTERS	
I. Introduction	1
Statement of a Problem	2
Research Goals	2
Background and Significance	2
Limitations	4
Assumptions	4
Procedures	5
Definition of Terms	5
Overview of Chapters	7
II. Review of Literature	8
Accessible Data	8
NVCC Curriculum Policy; Organizational Structure	9
NAACLS Program Accreditation vs. NAACLS Program Approval	9
NAACLS Programs Approval Guide for Phlebotomy Programs	10
Competency Cross-Reference	11
National Certification Examination Statistics	12
Structured vs. Approved: Impact on Workforce	13
Summary	14
III. Methods and Procedures	15
Population	15
Instrument Design	15
Methods of Data Collection	16
Statistical Analysis	16
Summary	16
IV. Findings	17
Response to Survey	17
Survey Results	18
Summary	21

	Page
V. Summary, Conclusions, and Recommendations	22
Summary	22
Conclusions	23
Recommendations	24
Bibliography	26
Appendices	27

## TABLE OF TABLES

	Page
Table 1, NAACLS Average Annual Cost	9
Table 2, NAACLS Approval Documentation in Place at NVCC	11
Table 3, ASCP-BOR Examination Statistics (ASCP-BOR Author, 2005)	12
Table 4, Aggregate Responses to Questions 3-8.	21

## TABLE OF FIGURES

	Page
Figure 1, Response Demographic	17

## **CHAPTER I**

### **INTRODUCTION**

In 1986, the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) introduced Standards of Approved Educational Programs for Phlebotomy. The purpose was to provide recognition for educational programs that met or exceeded the agency's minimum standards for approval.

In 1987, Northern Virginia Community College (NVCC) developed a Phlebotomy (PBT) Career Studies Certificate (CSC) Program at the request of the Medical Laboratory Technology AAS degree program's advisory board. Prior to the college's establishment of the phlebotomy program, phlebotomists working in the region were trained on the job.

Rather than seek program approval status from NAACLS, the college developed the core of its curriculum using the standards established in the late 1970s by the Clinical and Laboratory Standards Institute (CLSI), formerly known as the National Commission for Clinical Laboratory Standards (NCCLS). The Institute is a globally recognized, voluntary consensus standards-developing organization. (CLSI Author, 2005)

The Commission on Colleges (COC) of the Southern Association of Colleges and Schools (SACS) accredits NVCC. In 2003, the college opened its sixth campus, the Medical Education Campus (MEC), dedicated to the degrees and certificates it confers in health occupations. In the fall of 2004, the new campus was required to submit to SACS institutional effectiveness documentation for all programs. Compiling the information for SACS led to a study to determine the benefit of seeking phlebotomy program approval status from NAACLS.



### **Statement of Problem**

The purpose of this study was to determine the benefit of seeking phlebotomy program approval status from The National Accrediting Agency for Clinical Laboratory Sciences for the non-approved phlebotomy program at Northern Virginia Community College.

### **Research Goals**

The goals of this study were to answer the following questions:

1. Do approved programs provide access to data not available for non-approved programs?
2. Does a change from a non-approved program to an approved program change the curriculum model?
3. Is it financially feasible for the college to seek program approval status?
4. Does an approved program increase credibility in recruitment?
5. Does graduation from an approved program allow students to enter the workforce more efficiently than graduates of non-approved programs?

### **Background and Significance**

The primary function of a phlebotomist is to accurately and safely collect and transport blood specimens from patients to the laboratory for analysis by technicians and technologists. Advanced diagnostic techniques and computer technology have increased the number of testing options for clinical decision making. (Garza & Becan-McBride, 2005, p. 2) In turn, the role of the phlebotomist has expanded, requiring greater knowledge and skills. The specialization of phlebotomy led to the replacement of on-the-job training with structured phlebotomy training programs leading to certification. (Strasinger, 1996, p. 5)

The NVCC PBT program is successful and self-sustaining and prior to this study, had not sought NAACLS approval status. However, in the fall of 2004, when the college's

new campus had to document information on its health occupations degrees and programs for SACS, the researcher discovered that because the CSC program in PBT was non-approved by NAACLS, there was a lack of verifiable data for documentation. The program had to rely on anecdotal data from students. The lack of national examination pass-rate data deprives the college of an important curriculum evaluation tool.

There are no Virginia state licensure requirements for phlebotomists; however, there are several agencies that certify phlebotomists. An informal poll conducted in 2003 by the researcher revealed that area healthcare organizations that hire NVCC graduates prefer certification from the American Society for Clinical Pathology (ASCP) Board of Registry (BOR).

The ASCP-BOR Procedures for Examination and Certification (ASCP-BOR Author, 2005) lists five routes to be eligible to sit for the Phlebotomy Technician examination to earn the PBT (ASCP) certification. Route 1 includes completion of a NAACLS-approved phlebotomy program. Route 2 includes a completion of an acceptable two-part, formally structured phlebotomy program within the last five years. Routes 3, 4, and 5 are related to alternative routes that do not include completion of a NAACLS approved, or formally structured program. The alternate routes include on-the-job-trained personnel with a year of experience, and other nursing or allied health professionals who were trained on the job to collect blood samples as part of their job description.

The BOR recognizes the program at NVCC as an acceptable formally structured program. However, in 2004, the BOR changed its application process that streamlined the process for Route 1 candidates and created barriers for Route 2 candidates. Route 1 candidates have been given the opportunity to apply to take the examination online

because of the board's recognition of NAACLS approved programs. No additional documentation is required for NAACLS program graduates. Northern Virginia Community College's phlebotomy Career Studies Certificate program graduates must apply via Route 2. Prior to 2004, the application process for Route 2 applicants was self-directed. The ASCP-BOR confirmed eligibility through the program director after receiving the candidate's application. Currently, in addition to the application itself, the application must also include:

- A letter from the program director verifying program completion,
- A completed program reference form. (ASCP-BOR Author, 2005)

The lack of verifiable data and the more cumbersome application processes newly required of students and program directors of non-approved NAACLS programs are key issues in this study.

### **Limitations**

The NAACLS website lists fifty-three approved phlebotomy programs in the United States. Currently, there is no phlebotomy program in Virginia recognized as approved by NAACLS. The study included the population of all approved programs.

### **Assumptions**

This study was based on the following assumptions:

1. Seeking phlebotomy program approval from NAACLS will allow consistency for collecting verifiable data for program documentation at NVCC.
2. The phlebotomy program faculty will resist, believing that the processes required to maintain an approved program outweigh the benefits.

3. The ASCP-BOR does not bar graduates of non-approved programs from sitting for their certification examination.
4. Because NVCC is in a noncompetitive market, recruitment is not affected by the lack of NAACLS approval.
5. It is perceived that NVCC may support a NAACLS approved phlebotomy program as an added benefit to the reputation of the new Medical Education Campus.

### **Procedures**

For this study, the researcher reviewed literature specifically related to seeking phlebotomy program approval status. The researcher then developed a survey administered to all approved phlebotomy programs in the United States. The survey questioned the program directors on the benefits of being recognized through approval status by NAACLS.

After the survey was collected, the researcher compiled the information along with the NAACLS published Standards of Approved Educational Programs for Phlebotomist, and the NVCC Phlebotomy curriculum. The information was presented for analysis and decision-making to the Northern Virginia Community College Medical Education Campus Provost and to the Dean of the Allied Health Division.

### **Definition of Terms**

The following terms are defined to guide the reader:

**Accreditation** – Official approval of recognition that maintains standards.

**Certification** – Authoritative confirmation of meeting standards.

**Competency** – Having essential knowledge and abilities.

**Licensure** – Permission granted by an authoritative entity to engage in an occupation.

**Standards** – Set up and established by an authoritative entity as a rule to measure quality.

**NVCC** – Northern Virginia Community College is a comprehensive community college offering associate degrees, certificates, and career studies certificates. It is one of twenty-three community colleges in the Virginia Community College System. Established in 1964, it is now comprised of six campuses.

**NAACLS** – National Accrediting Agency for Clinical Laboratory Sciences is an international agency for accreditation and approval of educational programs in clinical laboratory science and other health related professions.

**PBT** – “Phlebotomy/Phlebotomist is a member of the health care delivery team who is responsible for the pre analytical phase of collection, handling, and processing of blood specimens for analysis. In addition to blood specimens, phlebotomists also handle and process other body fluid specimens.” (Garza & Becan-McBride, 2005, p. 2)

**CSC** – Career Studies Certificate is awarded by NVCC for a specific group of career related courses and includes an English or Speech course. The total number of credits must be between 9 and 29 credits.

**COC** – Commission on Colleges is an accrediting agency for institutions of higher education.

**SACS** – Southern Association of Colleges and Schools is the regional body of the COC that includes: Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, and Virginia, and Latin America.

**MEC** – Medical Education Campus of Northern Virginia Community College is the sixth and newest campus of NVCC. It is dedicated to health professions and offers eight associate degree programs, sixteen certificate programs, and is also home to a free primary health and dental clinic.

**ASCP** – American Society for Clinical Pathology-Board of Registry is an independent certification agency for medical laboratory professionals. They are jointly referred to as the ASCP-BOR.

**CLSI** – Clinical and Laboratory Standards Institute is an international, nonprofit standards developing organization formerly known as NCCLS - National Commission for Clinical Laboratory Standards.

**PPR** – Program Performance Reports are statistical reports available to program directors of NAACLS approved programs.

**SCHEV** – State Council of Higher Education for Virginia.

VCCS – Virginia Community College System.

### **Overview of Chapters**

Chapter I, Introduction, describes the need to study and determine the benefits to the NVCC phlebotomy program in seeking NCCLS approval status. Chapter I also provides a research overview that included limitations, assumptions, procedures, and defines terms and abbreviations. Chapter II is a Review of Literature. It describes The Standards of Approved Educational Programs for the Phlebotomist published by the National Accrediting Agency for Clinical Laboratory Sciences. It shows the relationship of program approval to the American Society for Clinical Laboratory Pathology Board of Registry phlebotomy examination eligibility routes. Chapter II reviews and compares the Northern Virginia Community College phlebotomy curriculum and the college's SACS accreditation protocols with the NAACLS Standards. Chapter II looks at the overlap of essentials included in college accreditation, program approval, and defines standards.

Chapter III defines the population and methods on how the survey was conducted, the data collected, and how the data was analyzed. Chapter IV includes the findings and reporting of the survey data. Chapter V summarizes the conclusions of the findings and makes recommendations to the NVCC MEC administrators for decision-making.

## **CHAPTER II**

### **REVIEW OF LITERATURE**

This chapter provides information on accessible data provided through the ASCP-BOR for NAACLS approved programs. Chapter II also reviews and compares the NAACLS approval process to the Career Studies Certificate Program already in place at the Medical Education Campus of Northern Virginia Community College. It cites information from SACS on the principles of accreditation for institutions of higher education, NVCC's curriculum procedures manual, and the NVCC College Catalog.

In conclusion, this chapter provides statistical data from the ASCP-BOR comparing examination pass rates from graduates of NAACLS approved programs (Route 1 eligibility) to examinees from Routes 2, 3, 4, and 5, non-approved or alternate eligibility routes to sit for the examination.

#### **Accessible Data**

According to the BOR Program Performance Report (ASCP-BOR Author, 2004) available electronically on the ASCP-BOR website ([www.ascp.org](http://www.ascp.org)), program directors of NAACLS approved programs have access to:

- Examinee name
- Minimum passing scaled score
- Examinee breakdown of test items
- Examinee performance – 1<sup>st</sup> time examination taker
- Examinee performance – repeat examination taker

Access to this significant data can be an invaluable tool to evaluate the strengths, weaknesses, and opportunities to improve the success of the program.

## **NVCC Curriculum Policy; Organizational Structure**

Northern Virginia Community College is part of the Virginia Community College System (VCCS) and must abide by VCCS policies. The VCCS is part of the state system of higher education that is coordinated by the State Council of Higher Education for Virginia. These state and regional constituents oversee curricular responsibility. (NVCC Author, 2003)

In addition to the requirements to maintain college accreditation through SACS, SCHEV requires periodic evaluation and assessment of all NVCC programs. The NVCC Curriculum Procedures Manual also includes a clearly defined statement that “specialized program accreditation does not relieve a program of the state, college, and regional requirements.” (NVCC Author, 2003)

### **NAACLS Program Accreditation Versus NAACLS Program Approval**

According to the NAACLS Help Center (NAACLS Author, 2004), the cost is the main difference between the two. NAACLS accredited programs require two site visitors for their re-accreditation maintenance. Approved programs do not require site visits. All other components remain the same (see Table 1).

Table 1. NAACLS Average annual cost.

	<b>ACCREDITATION</b>	<b>APPROVAL</b>
Annual Active Fee	\$1000.00	\$900.00
Site Visit Prep Fee	\$500.00 averaged over a five year period	Non-applicable
Site Visit - Continuing	\$1100.00 averaged over a five year period	Non-applicable
Totals	\$1320.00	\$900.00

NAACLS Phlebotomy Program Approval is awarded for a maximum of four years. (NAACLS Author, 2003)



## **NAACLS Programs Approval Guide for Phlebotomy Programs**

There are seven major components of the Standards of Approved Education Programs for the Phlebotomist that must be documented for a program to be considered for approval. They are:

- **SPONSORSHIP** - The requirements associated with institutional affiliation and sponsoring institutions responsibilities.
- **RESOURCES** – The requirements associated with student/faculty ratio, program director, and faculty, financial and physical resources.
- **CURRICULUM** – The requirements associated with structure, instructional areas, learning experiences, and evaluations.
- **STUDENTS** – The requirements associated with program descriptions and publications, admissions, conduct, records, health and safety, guidance, and appeals.
- **OPERATIONAL POLICIES** – The requirements associated with fair practice.
- **PROGRAM EVALUATION** – The requirements associated with internal review, outcome measures, graduation and placement (employment) rates, and program evaluation and modification.
- **MAINTAINING APPROVAL** – The requirements associated with the program sponsoring institution responsibilities. (NAACLS Author, 2004)

The NAACLS document is referred to as a self-study. Each area of the self-study process contains subparts of the specific information that must be included in the document. Some categories require a narrative to support documentation. The researcher found that NVCC complies with the major components of the NAACLS approval process

through its institutional accreditation (COC- SACS Author, 2001), the college's curriculum procedures manual (NVCC Author, 2003), and policies specific to the allied health and nursing curriculum as defined in the college catalog (NVCC Author, 2004-2005). See Table 2.

Table 2. NAACLS Approval Documentation in Place at NVCC

Program Approval Guide for Phlebotomy Programs NAACLS, 2003	Principles of Accreditation: Foundations for Quality Enhancement COC-SACS, 2001	Curriculum Procedures Manual NVCC, 2003	NVCC College Catalog 2004-2005
Sponsorship			p. 100
Resources	Section 2.8-2.10		
Curriculum		p. 12 and p. 38	
Students	Section 3.9		
Operational Policies	Section 3.1-3.3		
Program Evaluation		p. 41	
Maintaining Approval	Section 2.7	p. 8	

### Competency Cross-Reference

There are nine competency areas with specific subparts listed in the NAACLS Programs Approval Guide that must be documented to be considered for Phlebotomy Program Approval. The researcher confirmed that the NAACLS competencies mirror the standards of practice as defined by the Clinical and Laboratory Standards Institute (CLSI). In Chapter I the researcher noted that the PBT Curriculum at NVCC was based on the CLSI standards. The NVCC Phlebotomy program is also an educational member

of CLSI and as such maintains a library of current standards and guidelines and educational media for use in the classroom. Membership includes notification of new document publications. It is determined that seeking NAACLS Phlebotomy Program approval would not necessitate a change in the current NVCC PBT Curriculum, but it would involve an added cost of \$900 per year in addition to the time required in preparing the self-study every four years to maintain program approval.

### **National Certification Examination Statistics**

In February, 2005, Patricia Ellinger, Chair of the Board of Governors of the ASCP-BOR, presented an update from the BOR at the 21<sup>st</sup> annual Clinical Laboratory Educators Conference in Williamsburg, Virginia. The following is excerpted from her presentation. See Table 3.

Table 3. ASCP-BOR Examination Statistics (ASCP-BOR Author, 2005)



*ASCP Certification: The Standard of Excellence*  
**PBT Examination Statistics**  
**January - December**

<b>Year</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
<b>Number of Examinees</b>	2178	2401	2359
<b>Mean</b>	508	509	517
<b>Pass</b>	83%	82%	84%
<b>NAACLS 1<sup>st</sup> Time Pass</b>	86%	83%	89%

It appears that graduates of NAACLS Approved programs perform slightly better than those who passed the examination by meeting the eligibility requirements through other routes. However, since the statistics do not show a breakout the graduates of formally

structured programs (route 2) from those examinees who were trained on the job (routes 3, 4, and 5), a valid comparison cannot be made.

### **Structured vs. Approved: Impact on Workforce**

As defined in the NVCC Curriculum Procedures manual (2003), a Career Studies Certificate (CSC) is designed for enhancement of job/life skills, retraining for career change, and/or investigating new career possibilities. The purpose of the NVCC CSC in Phlebotomy is to prepare personnel who collect and process blood and other samples for medical laboratory analysis. The curriculum includes learning experiences in both on-campus laboratories and affiliated clinical laboratories. (NVCC Author, 2004-2005)

A white paper/action plan commissioned by the Northern Virginia Health Care Workforce Alliance, titled *The Health Care Worker Shortage: An Analysis of the Scope and Impact on Northern Virginia*, indicates an 8.8% vacancy rate for phlebotomists. (PriceWaterhouseCoopers Author, 2004) In addition to the regional vacancy estimates, a national wage and vacancy survey conducted by the ASCP-BOR in 2003 stated that 33% of the laboratories surveyed indicated that applicants did not have the necessary skills or education. (Steward, Ward-Cook, & Tanner, 2005)

The NVCC PBT program is a successful two-part structured program. Regional employers who train and hire NVCC graduates have been consistent in providing positive feedback. The accreditation of the college by SACS lends credibility to all NVCC programs and recruitment into the Phlebotomy program is not an issue. On the other hand, seeking NAACLS approval for its PBT CSC program would allow graduates to apply online in the route 1 category for certification by the ASCP-BOR and enter the workforce more efficiently. The more efficient national certification process granted to

NAACLS approved programs could have a direct impact in reducing the regional phlebotomy shortage.

### **Summary**

In Chapter II, information has been provided about the NAACLS Phlebotomy Program Approval process. This chapter also reviewed and compared the elements of the NVCC CSC two-part formally structured program in Phlebotomy to the requirements listed in the NAACLS Phlebotomy Program Approval Guidelines. Two studies were examined to better understand the national and regional issues related to knowledge, education, and the shortage of qualified phlebotomy technicians. ASCP-BOR examination statistics were included, but there was not a direct comparison of examinees who graduated from a regionally accredited college program to examinees who graduated from a NAACLS approved program.

Chapter III, Methods and Procedures, will provide more in-depth information about the population in this study. A survey instrument will be described and include the methods that will be used to collect the data. An overview of the statistical analysis will also be included in Chapter III.

## **CHAPTER III**

### **METHODS AND PROCEDURES**

The purpose of this study was to determine the benefit of seeking phlebotomy program approval status from the National Accrediting Agency for Clinical Laboratory Sciences. The information in this chapter describes the methods and procedures initiated to reach the goals of the study. The population and the instrument design are described and the methods for gathering and analyzing data are presented. A summary is included.

#### **Population**

The population used in this study was taken from the list of NAACLS approved phlebotomy programs directors published on the NAACLS website. The approved programs are delivered in a variety of settings from university and community college educational settings, to hospital-based settings to propriety schools. According to the information provided on the website, 53 approved programs are offered throughout the United States. The entire population will be surveyed. Fifty-three questionnaires will be mailed.

#### **Instrument Design**

This is a descriptive study. A survey was designed to generate responses reflecting the scope of NAACLS approved programs and the type of institutions that offer NAACLS approved programs. The content of the survey included questions relating to the study's research goals: data access, curriculum, cost, credibility, and efficiency. Additional questions were asked relating to faculty, administrative support, and competing programs. The questionnaire included open-ended and closed-ended questions. The

closed-ended questions were designed as yes or no responses for precision in interpretation. See Appendix A.

### **Methods of Data Collection**

A cover letter was included with the questionnaire. The letter explained the purpose of the study. See Appendix B. The letter also indicated that confidentiality would be assured by only using the data collected and any identification references would be destroyed after the data were summarized. The mailing was sent on May 31, 2005, requesting a return response by June 14, 2005. The mailing also included a self-addressed stamped envelope for returning the questionnaire.

### **Statistical Analysis**

After the completed questionnaires were returned, the data were tabulated. The closed-ended responses were translated into number and percentage for each response. The remaining open-ended responses were reviewed, typical comments from respondents were included, and mean values were used to evaluate the responses where indicated.

### **Summary**

The research methods and procedures in Chapter III have included the population, instrument design, and methods for collecting data. Statistical analyses were used in determining relationships from the information gathered. A survey instrument was used in the form of a questionnaire for this descriptive study. The results and statistical analysis will be described in Chapter IV, Findings.

## CHAPTER IV

### FINDINGS

The purpose of this study was to determine the benefit of seeking phlebotomy program approval status from The National Accrediting Agency for Clinical Laboratory Sciences for the non-approved phlebotomy program at Northern Virginia Community College. Chapter IV presents the survey results in the form of descriptive information, a demographic figure, and a table developed from the closed-ended questions.

#### Response to the Survey

The survey was mailed to all 53 NAACLS approved program in the United States. Thirty-one were returned for a 58% response rate. Most approved programs are in the eastern United States, with the highest number (12) of programs located in North Carolina. See Figure 1.

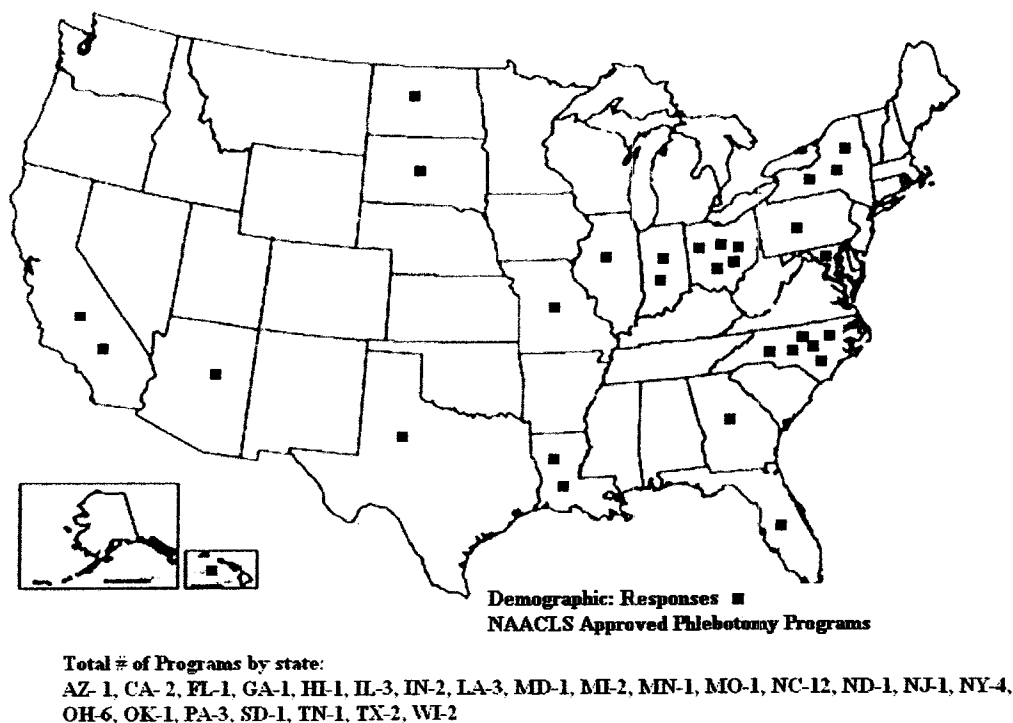


Figure 1. Response Demographic.  
Blank map ([www.abcteach.com](http://www.abcteach.com))



Of the 31 responses, 15 were from community colleges, six were from hospital-based programs, three from universities, four from state colleges, two from technical colleges, and one from a business college.

### **Survey Results**

The questionnaire consisted of eight questions. Preceding Question 1, demographic data were gathered and in addition, the respondents were asked to indicate the number of program faculty and program support personnel. The average number of faculty was 3.75 and the average number of support staff was 3. This information was compared to the data collected in Question 2 to determine if there was a correlation between the time it took to prepare the self-study to the number of faculty and staff. Following the 8 questions was an open-ended invitation to add additional comments. Questions 1 and 2 were open-ended and related to number of years the program had been approved and to the time required in the process of initiating and maintaining approval status. Questions 4 and 5 had follow-up parts depending on the answer of the respondent, but the initial questions formatted in Questions 3 through 8 were a series of close-ended questions to elicit a yes or no response.

#### **Question 1. How long has your phlebotomy program been a NAACLS approved program?**

The average number of years from the respondents was 12 with a range of 22 years.

#### **Question 2. Please estimate in weeks the time spent in preparing the self-study report: Initial Approval and re-approval.**

Of the 31 respondents, 43% were not involved with the initial program approval. Of the 57% who were involved in the initial approval process, the average time spent in

preparing the self-study was 24 weeks. There was no correlation between the time spent in preparing the self-study and the number of faculty and staff support.

The average time spent for the re-approval process was 12 weeks. Again, there was no correlation between the time spent in preparing the self-study and the number of faculty and staff support.

**Question 3. Do you have local competing programs?**

Of the 31 respondents, 61% answered yes and 39% answered no. Four of the respondents who answered yes noted that the local competing programs were not NAACLS approved.

**Question 4. Prior to seeking NAACLS approval, did your institution offer a phlebotomy program that met the criteria for sitting for national examinations in the category for non-approved programs?** (Question 4 included three follow-up questions for those respondents who answered yes to the initial question).

Of the 31 respondents, 16% answered yes and 84% answered no. The most typical responses to the follow-up questions from the 16% who answered yes to the initial question are as follows:

**4a. Briefly list the reason/s you decided to seek NAACLS program approval.**

“Benefit to program”; “Looks good for the college” **4b. Was it necessary to change your**

**curriculum to meet the requirements for NAACLS approval?** “No changes to curriculum”; “Yes, needed to change curriculum but not very much”. **4c. Do your**

**NAACLS approved program graduates perform better on national examinations than your former non-approved program graduates?** Eighty percent of respondents indicated that there was no comparison data; 20% answered yes.

**Question 5. Is your institution accredited by a regional accrediting agency?**

(Question 5 included a follow-up question for those respondents who answered yes to the initial question). The researcher asked this question based on a precedent set by diagnostic imaging programs whose national board examination agency recognizes graduates from regionally accredited institutions and does not require program accreditation. Of the 31 respondents, 87% answered yes and 13% answered no.

**5a. Please name the agency.** The most common agency institutional accreditation was the Commission on Colleges for college programs and the Joint Commission on Accreditation for Hospital Organizations for the hospital-based programs.

**Question 6. Does NAACLS Program Approval increase credibility in recruitment?**

Of the 31 respondents, 90% answered yes and 6% answered no and 3% percent answered undecided.

**Question 7. Does a NAACLS Approved Program allow graduates a more efficient eligibility process to sit for national certification examinations?**

Of the 31 respondents, 90% answered yes and 10% answered no.

**Question 8. Does the benefit of maintaining NAACLS phlebotomy program approval status outweigh the annual cost?**

Of the 31 respondents 81% answered yes, 9% answered no and 9% answered undecided.

See Table 4 for a summary of these findings.

Table 4. Aggregate Responses to Questions 3-8.

<b>Question:</b>	<b>Yes No. /Pct.</b>	<b>No No. /Pct.</b>	<b>Undecided No. / Pct.</b>
3. Do you have local competing programs?	19 / 61%	12 / 39%	
4. Prior to seeking NAACLS approval, did your institution offer a phlebotomy program that met the criteria for sitting for national examinations in the category for non-approved programs?	5 / 16%	26 / 84%	
5. Is your institution accredited by a regional accrediting agency?	27 / 87%	4 / 13%	
6. Does NAACLS Program Approval increase credibility in recruitment?	28 / 90%	2 / 6%	1 / 3%
7. Does a NAACLS Approved Program allow graduates a more efficient eligibility process to sit for national certification examinations?	28 / 90%	3 / 10%	
8. Does the benefit of maintaining NAACLS phlebotomy program approval status outweigh the annual cost?	25 / 81%	3 / 9%	3 / 9%

### Summary

Fifty-three questionnaires were mailed and thirty-one phlebotomy program directors responded. This was a 58% response rate. The majority of program directors responded yes in favor of having a NAACLS approved phlebotomy program over a non-approved program. A typical positive comment from the post questionnaire comment section: "I absolutely believe in the approval process." A less typical negative comment: "I'm considering recommending we drop NAACLS approval because I do not have the time to write the self-study." In Chapter V, the data, along with the literature review, will be used to provide a summary, draw conclusions, and make recommendations.

## **CHAPTER V**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **Summary**

The purpose of this study was to determine the benefit of seeking phlebotomy program approval status from The National Accrediting Agency for Clinical Laboratory Sciences for the non-approved phlebotomy program at Northern Virginia Community College. Based on the purpose of the study, the following five research question goals were addressed: 1. Do approved programs provide access to data not available for non-approved programs? 2. Does a change from a non-approved program to an approved program change the curriculum model? 3. Is it financially feasible for the college to seek program approval status? 4. Does an approved program increase credibility in recruitment? 5. Does graduation from an approved program allow students to enter the workforce more efficiently than graduates of non-approved programs?

This study was limited to the program directors of the 53 NAACLS approved phlebotomy programs in the United States. A study was undertaken in the form of a questionnaire. The eight questions included close-ended yes or no responses and provided a follow-up opportunity for open-ended responses and additional comments. The questions were framed to meet the goals of the study. After collecting the data, an analysis was performed in conjunction with the review of literature that included examination agency criteria and examination pass-rate statistics, the NAACLS program approval process, and a cross reference of competencies between SACS, the institutional accrediting agency and NAACLS, the program approval agency. The conclusions and recommendations from this analysis are discussed.

## **Conclusions**

The following conclusions are based on the data collected in conjunction with the review of literature.

### **GOAL 1. Do approved programs provide access to data not available for non-approved programs?**

The conclusion is yes. The few respondents with experience as a program director of both a non-approved and approved program indicated that they had no comparative data. This goal could not be determined from the questionnaire alone. The literature shows that approved programs do have online access to examination statistics from the ASCP examination agency website. The literature further indicates that this information is not available to non-approved programs.

### **GOAL 2. Does a change from a non-approved program to an approved program change the curriculum model?**

The conclusion is no. The few program directors who had experienced transitioning from a non-approved program to an approved program stated that few changes in the curriculum were necessary. The most typical comment from accredited institutions relating to this goal was “No changes”.

### **GOAL 3. Is it financially feasible for the college to seek program approval status?**

The conclusion is yes. Comments from several respondents indicated that although the approval process was quite time consuming, 80% answered that the benefit outweighed the annual cost.

#### **GOAL 4. Does an approved program increase credibility in recruitment?**

The conclusion is yes. Of the 90% of yes responses, the most typical comment relating to this goal was “Yes, for the program and the college”.

#### **GOAL 5. Does graduation from an approved program allow students to enter the workforce more efficiently than graduates of non-approved programs?**

The conclusion is yes, according to 90% of the respondents. The most typical comment related to this goal addressed the application process to sit for national examinations. It is an “Easier process for Route 1 applicants from approved programs.”

### **Recommendations**

This research showed that Northern Virginia Community College would benefit by seeking NAACLS approval for its Phlebotomy program. However, before undertaking the following action, further investigation needs to be done. It will be recommended to NAACLS to determine why there are not more than 53 approved programs throughout the United States. The researcher did not readily have access to data from other non-approved successful phlebotomy programs from accredited colleges and universities like the phlebotomy program at Northern Virginia Community College. In addition, it will be recommended to the Board of Health Professions of the Commonwealth of Virginia that they further investigate a need to seek state regulation of phlebotomy personnel emphasizing that there are no current NAACLS approved phlebotomy programs throughout the Commonwealth.

The following actions are recommended if further study supports the findings of this research:

1. **FINANCING:** The research will be presented to the Dean of the Allied Health Division and to the Provost of the Medical Education Campus of NVCC for their consideration and approval of the financial resources needed to proceed with the approval process.

2. **PROCESS:** A team of program faculty and support staff will meet to review and establish a timeline for submission of the NAACLS self-study report. Components of the report will be delegated to avoid any undue burden being placed on one team member.

Program approval is for a four-year period. This will allow NVCC to re-evaluate the process to determine if it remains beneficial to maintain NAACLS program approval.

3. **NAACLS:** The research will be submitted to the NAACLS Phlebotomy Discipline Lead and Phlebotomy Program Coordinator. It will be recommended to them to review their approval process for Phlebotomy programs and consider the following actions to increase the number of approved programs:

- A streamlined approval process for Career Studies Certificate programs under the auspices of regionally accredited colleges and / or universities.
- An approval period longer than four years.

4. **BOARD OF HEALTH PROFESSIONS, COMMONWEALTH OF VIRGINIA:**

The research will be submitted to the Board of Health Professions Executive Director. It will be recommended that the board consider:

- Using the research as a platform to discuss the need of regulating the practice of phlebotomy in the Commonwealth of Virginia.
- Emphasize that there are no approved programs in Virginia.



## BIBLIOGRAPHY

American Society for Clinical Pathology. (2004, July). *Procedures for Examination and Certification 2005*.

Clinical Laboratory Standards Institute. *About*. Retrieved March 8, 2005 from [http://www.nccls.org/Template.cfm?section=About\\_CLSI](http://www.nccls.org/Template.cfm?section=About_CLSI)

Clinical Laboratory Standards Institute. *Standards Development*. Retrieved March 8, 2005 from [http://www.nccls.org/Template.cfm?Section=CLSI\\_Standards\\_Development](http://www.nccls.org/Template.cfm?Section=CLSI_Standards_Development)

Commission on Colleges Southern Association of Colleges and Schools. (2001, December). *Principles of Accreditation Foundations for Quality Enhancement*.

Ellinger, P. (2005, February). *American Society for Clinical Pathology – Board of Registry Update*. Presentation at the 21<sup>st</sup> Annual Clinical Laboratory Educators Conference, Williamsburg, Virginia.

Garza, D., & Becan-McBride, K. (2005). *Phlebotomy Handbook* (7<sup>th</sup> ed., chap. 1). New Jersey: Pearson Prentice Hall.

National Accrediting Agency for Clinical Laboratory Sciences. (2003). *Program Approval Guide for Phlebotomy Programs*.

Northern Virginia Community College Catalog '04-05. (2004).

Northern Virginia Community College. (2003, August). *Curriculum Procedures Manual 2003*.

Northern Virginia Community College. (2004, August). *Supplemental Student Handbook Phlebotomy Career Studies Certificate Program*.

Northern Virginia Workforce Alliance. (2004, November). *The Health Care Worker Shortage: An Analysis of the Scope and Impact on Northern Virginia*. Price Waterhouse Coopers.

Steward, C.A., Ward-Cook, & K., Tanner, S. (2005). 2003 Wage and Vacancy Survey of Medical Laboratories. *Labmedicine*. 36(3) 155-157.

Strasinger, S., & Dilorenzo, M. (1996). *Phlebotomy Workbook for the Multiskilled Healthcare Professional* (chap.1). Pennsylvania: F.A. Davis Company.

**NAACLS APPROVED PHLEBOTOMY PROGRAM QUESTIONNAIRE**

Name of Institution \_\_\_\_\_

Location \_\_\_\_\_

Number of phlebotomy faculty \_\_\_\_\_ Number of phlebotomy support staff \_\_\_\_\_

1. How long has your phlebotomy program been a NAACLS approved program?  
\_\_\_\_\_
2. Please estimate in weeks the time spent in preparing the self-study report.  
Initial Approval \_\_\_\_\_ Re-approval \_\_\_\_\_
3. Do you have local competing phlebotomy programs?  
Yes \_\_\_\_\_ No \_\_\_\_\_
4. Prior to seeking NAACLS approval, did your institution offer a phlebotomy program that met the criteria for sitting for national examinations in the category for non-approved program s?  
Yes \_\_\_\_\_ No \_\_\_\_\_

If you answered yes to question 4, briefly list the reason/s you decided to seek NAACLS program approval.

\_\_\_\_\_

\_\_\_\_\_

If you answered yes to question 4, was it necessary to change your curriculum to meet the requirements for NAACLS approval?

Yes \_\_\_\_\_ No \_\_\_\_\_

If you answered yes to question 4, do your NAACLS approved program graduates perform better on national certification examinations than your former non-approved program graduates?

Yes \_\_\_\_\_ No \_\_\_\_\_ No significant difference \_\_\_\_\_ No comparison data \_\_\_\_\_

5. Is your institution accredited by a regional accrediting agency?  
Yes \_\_\_\_\_ No \_\_\_\_\_

If you answered yes to question 5, please name the agency.

\_\_\_\_\_

6. Does NAACLS Program Approval increase credibility in recruitment?  
Yes \_\_\_\_\_ No \_\_\_\_\_
7. Does a NAACLS Approved Program allow graduates a more efficient eligibility process to sit for national certification examinations?  
Yes \_\_\_\_\_ No \_\_\_\_\_
8. Does the benefit of maintaining NAACLS phlebotomy program approval status outweigh the annual cost?  
Yes \_\_\_\_\_ No \_\_\_\_\_

Thank you for your participation and prompt reply. Please feel free to add any additional comments.

## APPENDIX B

Frankie Harris-Lyne  
P.O. Box 1077  
Warrenton, Virginia 20188

May 31, 2005

Dear Phlebotomy Program Director:

I am currently working on my Master's of Science degree in Occupational and Technical Studies majoring in Community College Teaching. As part of my coursework, I am conducting a research study. The focus of the study is to determine the benefit of seeking NAACLS phlebotomy program approval.

I serve as the acting assistant dean for the Career Studies Certificate program in Phlebotomy at Northern Virginia Community College in Springfield, Virginia. The program is a two-part formally structured program but is not a NAACLS approved program.

Your contact information is listed on the NAACLS website as a NAACLS approved phlebotomy program director. By completing the enclosed questionnaire you will assist me in my ability to complete the study to determine if the Northern Virginia Community College phlebotomy program would benefit from seeking NAACLS program approval.

Please take a few minutes to complete the questionnaire and return it to me in the enclosed envelope by **Tuesday, June 14, 2005**. Your name and institution will be kept confidential and only the data you provide will be reported in the study. All questionnaires containing identifiable data will be destroyed after the data is collected.

Thank you in advance for your participation. I look forward to your reply. Feel free to contact me at [fharrislyne@nvcc.edu](mailto:fharrislyne@nvcc.edu) if you need further information.

*Frankie Harris-Lyne*

Frankie Harris-Lyne, MLT (ASCP), CLS (NCA)