



## JOB ANALYSIS REPORT

# NATIONAL CERTIFICATION CORPORATION

## MATERNAL NEWBORN NURSING

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### PSI SERVICES

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### SUBMITTED TO



## EXECUTIVE SUMMARY

This report describes the methodology and procedure used to conduct a job analysis and develop the exam specifications for the National Certification Corporation (NCC) Maternal Newborn Nursing certification examination.

The three major activities that comprise the job analysis process described in this report are as follows:

1. **Job Analysis Committee Meeting** – A gathering of subject matter experts (SMEs) to discuss and develop a description of the scope of practice
2. **Job Analysis Survey** – A large-scale survey of practitioners not involved with the SME panel to validate the task and knowledge statements developed by the panel
3. **Development of Examination Specifications** – The development of Examination Specifications by the panel based on the results of the survey

Several practitioners were assembled by NCC to serve as SMEs. The individuals selected represent a wide variety of work-related characteristics such as years of experience, work setting, geographic location, and areas of specialty. This helps in developing a scope of practice that is reflective of the roles and responsibilities of the job role and is relatively free from bias. By analyzing the experiences and expertise of current practitioners, the results from the job analysis become the basis of a validated assessment that reflects the competencies required for competent job performance.

The job analysis process utilized in this study yields exam specifications that accurately reflect the scope of practice, allowing for the development of fair, accurate, and realistic assessments of candidates' readiness for certification. The resultant Examination Specifications document (Appendix C) indicates a 150-item examination with content distribution requirements at the competency area (content domain) level as well as topic (content subdomain) level. The five competency areas are:

1. Pregnancy and Birth Risk Factors and Complications
2. Maternal Postpartum Assessment, Management and Education
3. Newborn Assessment and Management
4. Maternal Postpartum Complications
5. Newborn Complications

## INTRODUCTION

This report describes the methodology and procedure used to conduct a job analysis and develop the exam specifications for the National Certification Corporation (NCC) Maternal Newborn Nursing (MNN) certification examination.

The procedure was conducted in accordance with principles and practices outlined in the *Standards for Educational and Psychological Testing*<sup>1</sup>, which describe principles and guidelines for all aspects of test development, including content validation.

A job analysis (sometimes referred to as a practice analysis, job task analysis, or work analysis) is a scientific inquiry conducted in order to identify the tasks and work activities conducted, the context in which those tasks and activities are carried out, and the competencies (knowledge areas, skills, and abilities) required to perform a job role successfully<sup>2</sup>. Different methods can be used which may differ in the levels of specificity in analyzing and describing different work elements, with the choice of method largely dependent on the intended purpose and use of the results. The methodology of the current analysis was tailored to the creation of exam specifications for test development.

When completed, the job analysis process utilized in this study yields exam specifications that accurately reflect the scope of practice, allowing for the development of fair, accurate, and realistic assessments of candidates' readiness for certification. The job analysis is typically performed every 5 to 7 years so that the content outline represents the current scope of practice. Because it serves as the primary basis for content validity evidence, as required by the aforementioned Standards, the job analysis is a primary mechanism by which a certifying body or regulatory board can ensure the accuracy and defensibility of an exam. It serves as the foundation of the certification exam and is critical to the success of the entire exam development process. All necessary documentation verifying that the validation process has been implemented in accordance with professional standards is included in this report.

This report is divided into three major activities of the job analysis process, which are:

1. **Job Analysis Committee Meeting** – A gathering of subject matter experts (SMEs) to discuss and develop a description of the scope of practice
2. **Job Analysis Survey** – A large-scale survey of practitioners not involved with the SME panel to validate the task and knowledge statements developed by the panel
3. **Development of Examination Specifications** – The development of Examination Specifications by the panel based on the results of the survey

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<sup>1</sup> American Educational Research Association, American Psychological Association, National Council on Measurement in Education (2014). *Standards for Educational and Psychological Testing*. Washington, DC: AERA.

<sup>2</sup> Sackett, P. R. & Laczko, R. M. (2003). *Job and Work Analysis*. Handbook of Psychology. One: 2: 19–37.

## JOB ANALYSIS COMMITTEE MEETING

NCC selected subject matter experts (SMEs) to represent a wide variety of work-related characteristics such as years of experience, work setting, geographic location, and areas of specialty to develop a scope of practice that is reflective of the roles and responsibilities of the job and is relatively free from bias. See Appendix A for a complete list of the SMEs and their qualifications.

PSI conducted a job analysis committee meeting on April 1, 2019 with SMEs to discuss the scope of practice and develop a list of tasks and knowledge areas that reflect the job role. PSI led the SMEs in refining task and knowledge statements and organizing them into a domain and subdomain structure. The outgoing NCC MNN exam content outline and candidate handbook were used as resources when developing the knowledge areas and tasks.

The job analysis committee developed 23 task statements.

1. Administer medication
2. Facilitate discharge
3. Facilitate interdisciplinary care
4. Facilitate newborn feeding
5. Interpret laboratory or diagnostic testing results
6. Manage maternal postpartum complications
7. Manage newborn complications
8. Monitor maternal postpartum status
9. Monitor newborn status
10. Obtain laboratory specimen
11. Perform diagnostic test
12. Perform maternal postpartum physical assessment
13. Perform newborn physical assessment
14. Perform newborn screenings
15. Perform or assist with procedure
16. Perform psychosocial assessment
17. Perform resuscitation
18. Provide education
19. Provide maternal postpartum care
20. Provide newborn care
21. Provide palliative care
22. Provide psychosocial support
23. Provide transfer of care communication

The job analysis committee developed 21 knowledge statements across five content domains.

1. Pregnancy and Birth Risk Factors and Complications
  - A. Antepartum
  - B. Intrapartum
2. Maternal Postpartum Assessment, Management and Education
  - A. Physiologic changes and physical assessment
  - B. Nursing care
  - C. Lactation
  - D. Newborn feeding and nutrition
  - E. Psychosocial support and ethical issues
3. Newborn Assessment and Management
  - A. Transition to extrauterine life
  - B. Resuscitation and stabilization
  - C. Physical and gestational age assessment
  - D. Newborn care and family education
4. Maternal Postpartum Complications
  - A. Hematologic
  - B. Cardiovascular
  - C. Infection
  - D. Diabetes
  - E. Mood and substance use disorders
5. Newborn Complications
  - A. Cardiovascular and respiratory
  - B. Neurological and gastrointestinal
  - C. Hematologic
  - D. Infectious disease
  - E. Genetic, metabolic and endocrine

The committee identified linkages between the task and knowledge statements to ensure that each task was covered by at least one relevant knowledge area and that each knowledge area had at least one relevant task identified. See Table 1 for a summary of the knowledge-task linkages identified.

**Table 1.**  
*Task Linkage Table.*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
<b>1</b>																								
1A	x					x	x																	
1B	x					x	x																	
<b>2</b>																								
2A	x	x	x		x	x		x				x					x	x	x					x
2B	x		x					x		x	x				x			x	x					x
2C			x	x														x						
2D		x		x			x											x		x				
2E		x	x													x		x				x	x	
<b>3</b>																								
3A							x		x									x						
3B			x				x											x						
3C	x	x	x	x	x		x		x				x	x				x	x		x			x
3D	x	x	x						x	x	x			x	x				x		x			x
<b>4</b>																								
4A						x																		
4B						x																		
4C						x																		
4D						x																		
4E			x			x										x								x
<b>5</b>																								
5A							x																	
5B							x																	
5C							x																	
5D							x																	
5E							x																	

## JOB ANALYSIS SURVEY

PSI developed, administered, and monitored a survey to validate the tasks and knowledge areas developed by the job analysis committee and to help determine content weighting. To this end, the survey collected respondents' ratings of the importance and frequency for each task and knowledge area. Below are the prompts for each rating scale.

What are the importance and performance frequency of each task *in your practice* as an MNN nurse?

What are the importance and frequency of application of these knowledge areas *in your practice* as an MNN nurse?

**Importance**

- 0 – Not Applicable
- 1 - Not Important
- 2 - Minimally Important
- 3 - Moderately Important
- 4 - Very Important
- 5 - Critically Important

**Frequency**

- 0 - Never
- 1 - Annually
- 2 - Quarterly
- 3 - Monthly
- 4 - Weekly
- 5 - Daily

Between April 17 and 22, 2019, a pilot survey was conducted with the job analysis committee and NCC staff members to ensure that the survey was operating correctly. No modifications were made following the pilot survey.

The live survey was sent using online survey software to a list of 8,704 individuals which was obtained from NCC. The list included all individuals who currently hold the NCC Maternal Newborn Nursing credential. The number of individuals that provided acceptable responses (selected 'Yes' to the first two questions described below, completed at least 50% of the task ratings, worked between 8 and 60 hours per week, and had between 2 and 55 years of experience) was 916 (11%). The survey was opened on April 25, 2019 and closed on June 7, 2019. See Appendix B for the email sent to potential respondents.

The first question of the survey read: *Do you agree to take part in this survey?* The second question read: *Do you currently provide direct patient care as a Maternal Newborn Nurse (MNN)?* These questions served as filters to allow only those who indicated "yes" to move forward with the rest of the survey.

Table 2 shows the mean ratings provided by the 916 respondents for the task statements. Table 3 shows the mean ratings provided by 762 respondents for the knowledge statements.

**Table 2.**  
*Task Statement Ratings.*

	<b>Task Statements</b>	<b>Importance</b>	<b>Frequency</b>
1	Administer medication	4.26	4.86
2	Facilitate discharge	3.83	4.40
3	Facilitate interdisciplinary care	3.89	4.51
4	Facilitate newborn feeding	4.50	4.92
5	Interpret laboratory or diagnostic testing results	4.19	4.79
6	Manage maternal postpartum complications	4.58	4.22
7	Manage newborn complications	4.59	4.27
8	Monitor maternal postpartum status	4.38	4.84
9	Monitor newborn status	4.47	4.88
10	Obtain laboratory specimen	3.79	4.35
11	Perform diagnostic test	3.43	3.84
12	Perform maternal postpartum physical assessment	4.38	4.77
13	Perform newborn physical assessment	4.45	4.84
14	Perform newborn screenings	4.02	4.47
15	Perform or assist with procedure	3.69	3.96
16	Perform psychosocial assessment	3.97	4.65
17	Perform resuscitation	4.52	1.91
18	Provide education	4.42	4.90
19	Provide maternal postpartum care	4.25	4.81
20	Provide newborn care	4.33	4.87
21	Provide palliative care	2.37	1.29
22	Provide psychosocial support	4.11	4.56
23	Provide transfer of care communication	4.13	3.93



**Table 3.**  
*Knowledge Statement Ratings.*

Knowledge Statements		Importance	Frequency
1A	Antepartum	3.03	3.04
1B	Intrapartum	2.79	2.86
2A	Physiologic changes and physical assessment	4.37	4.83
2B	Nursing care	4.35	4.88
2C	Lactation	4.26	4.90
2D	Newborn feeding and nutrition	4.43	4.91
2E	Psychosocial support and ethical issues	4.04	4.58
3A	Transition to extrauterine life	4.21	4.44
3B	Resuscitation and stabilization	4.23	3.11
3C	Physical and gestational age assessment	3.80	4.24
3D	Newborn care and family education	4.37	4.91
4A	Hematologic	4.21	4.31
4B	Cardiovascular	4.14	4.04
4C	Infection	4.31	4.11
4D	Diabetes	4.22	4.18
4E	Mood and substance use disorders	4.17	4.10
5A	Cardiovascular and respiratory	4.48	4.38
5B	Neurological and gastrointestinal	4.17	3.98
5C	Hematologic	4.13	3.87
5D	Infectious disease	4.16	3.74
5E	Genetic, metabolic and endocrine	3.92	3.42

The survey included demographic questions regarding professional characteristics relevant to the job role. See Table 4 for a summary of the demographic questions in the survey.

**Table 4.**  
*Results of the Demographic Questions in the Job Analysis Survey.*

1. Do you agree to take part in this survey?		<i>n</i>	%
Yes		1655	99.76
No		4	0.24

  

2. Do you currently provide direct patient care as a Maternal Newborn Nurse (MNN)?		<i>n</i>	%
Yes		1336	80.87
No		316	19.13

  

3. On average, how many hours per week do you provide direct patient care as an MNN?			
Mean = 31.54	Standard Deviation = 8.33	Minimum = 8	Maximum = 60

4. What is the highest level hospital/unit designation in which you provide direct patient care as an MNN?	<i>n</i>	%
<b>Birth Center</b> (Peripartum care of low-risk women with uncomplicated singleton term pregnancies with a vertex presentation who expect an uncomplicated birth).	14	1.54
<b>Level I</b> (Basic Care) Uncomplicated pregnancies with ability to detect, stabilize and initiate management of unanticipated maternal-fetal or neonatal problems and transfer as needed.	144	15.81
<b>Level II</b> (Specialty Care) Level I facility plus care of appropriate high-risk antepartum, intrapartum or postpartum conditions both directly admitted or transferred in.	279	30.63
<b>Level III</b> (Subspecialty Care) Level II facility plus care of more complex maternal conditions, obstetric complications and fetal conditions. Advanced imaging.	178	19.54
<b>Level IV</b> (Regional Health Care Centers) Level III facility plus on-site medical and surgical care of the most complex maternal conditions and critically ill pregnant women and fetuses throughout antepartum, intrapartum and postpartum. Onsite ICU care, maternal referral and transport, outreach.	239	26.23
Do not know	44	4.83
Not applicable	13	1.43

5. What is your highest level of nursing education?	<i>n</i>	%
Diploma	30	3.30
Certificate	2	0.22
Associate	171	18.79
Baccalaureate	603	66.26
Masters	95	10.44
Post Masters	3	0.33
Doctorate - DNP	5	0.55
Doctorate - PhD	1	0.11

6. How many years of experience do you have providing direct patient care as an MNN? (Please enter a whole number)			
Mean = 15.43	Standard Deviation = 9.86	Minimum = 2	Maximum = 46

7. Which of the following best describes your PRIMARY workplace location?	<i>n</i>	%
Northeast	190	20.83
Midwest	180	19.74
South	297	32.57
West	244	26.75
Territories	1	0.11
Canada	0	0.00

8. What percentage of your practice as an MNN is devoted to each of the following categories? (Enter whole numbers, without percent symbols, that total 100)	Mean	Standard Deviation	Minimum	Maximum
Postpartum	12.39	19.95	0.00	100.00
Newborn	15.91	22.54	0.00	100.00
Couplet	71.70	33.45	0.00	100.00

## DEVELOPMENT OF EXAMINATION SPECIFICATIONS

The Job Analysis Committee met on August 13, 2019 to review the results of the survey, finalize the tasks and knowledge that would comprise the next exam content outline, establish linkages among the tasks and knowledge areas, and finalize the content weighting for the examination.

The committee reviewed the demographic results and confirmed that the results matched expectations and impressions of the practitioner population, suggesting that the respondent sample is reflective of those currently working as Maternal Newborn Nurses.

All tasks and knowledge statements were retained by the committee. They noted that the survey results conformed to their expectations. For clarification, knowledge areas 1A and 1B were edited to include “history”.

The committee then reviewed the draft content weighting, discussing any adjustments necessary to align the number of items per content area with adequate content coverage on the examination. The draft content weighting was developed by determining a percentage weight based on the relative weight of the mean importance value for each content area.

No adjustments were at the domain level. At the subdomain level, two minor adjustments were made to reflect the range in scope of each content area. See Table 5 for a summary of the content weighting determination. The final examination specifications can be found in Appendix C.

**Table 5.**  
*Content Weighting Determination.*

	Final	Survey
<b>1 Pregnancy and Birth Risk Factors and Complications</b>	<b>10</b>	<b>10.17</b>
1A Antepartum history	5	5.29
1B Intrapartum history	5	4.88
<b>2 Maternal Postpartum Assessment, Management and Education</b>	<b>39</b>	<b>37.47</b>
2A Physiologic changes and physical assessment	8	7.63
2B Nursing care	8	7.60
2C Lactation	8	7.44
2D Newborn feeding and nutrition	8	7.73
2E Psychosocial support and ethical issues	7	7.06
<b>3 Newborn Assessment and Management</b>	<b>29</b>	<b>29.01</b>
3A Transition to extrauterine life	8	7.36
3B Resuscitation and stabilization	7	7.38
3C Physical and gestational age assessment	7	6.64
3D Newborn care and family education	7	7.63
<b>4 Maternal Postpartum Complications</b>	<b>36</b>	<b>36.78</b>
4A Hematologic	7	7.35
4B Cardiovascular	7	7.24
4C Infection	8	7.53
4D Diabetes	7	7.38
4E Mood and substance use disorders	7	7.28
<b>5 Newborn Complications</b>	<b>36</b>	<b>36.57</b>
5A Cardiovascular and respiratory	8	7.82
5B Neurological and gastrointestinal	7	7.29
5C Hematologic	7	7.35
5D Infectious disease	7	7.27
5E Genetic, metabolic and endocrine	7	6.84

## APPENDIX A

## SUBJECT MATTER EXPERTS

Name	Job Title	Employer	Years Exp.	State
Hannah Crement	Nurse Clinician III	Lyndon B. Johnson General Hospital	6	TX
Anne M Murphy	Staff Nurse Level III	Mercy Medical Center	42	IA
Colleen Pospishil	Patient Safety Specialist	Amita Health Adventist Medical Center	26	IL
Kathryn Giddens	Nurse Educator	Share Mary Birch Hospital for Women & Newborns	15	CA
Elizabeth Stuesse	Clinical Assistant Professor; Women & Children's Educator Registered Nurse	Maryville University; Mercy Hospital	10	MO
Christina Tussey	Clinical Nurse Specialist	Banner University Medical Center	37	AZ
Barbara Buchko	Director of Evidence Based Practice and Nursing Research	Wellspan Health	39	PA
Sofia Juarez	Clinical Registered Nurse IV	Holy Cross Hospital	14	MD

## APPENDIX B

### SURVEY EMAIL

Date: April 17, 2019  
From: info@nccnet.org via surveymonkey.com  
Subject: NCC Maternal Newborn Nursing Job Analysis Survey

Body: The National Certification Corporation (NCC) invites you to participate in the Maternal Newborn Nursing (MNN) Job Analysis Survey. This survey will be used to identify tasks and knowledge reflective of the professional role of an MNN.

The results of the survey will help develop the specifications for the NCC MNN certification exam. This is a great way to contribute to the industry and ensure that a high standard is maintained.

The survey will likely require 15 to 20 minutes to complete. Your individual responses will be kept confidential and will be combined with those of other respondents. The deadline to complete the survey is **May 23, 2019**.

Please note that participation in this survey is voluntary. At the end of the survey you can choose to provide your name and email for a chance to **win a \$100.00 Amazon gift card**.

Please read all questions carefully and select responses that best represent ***your direct patient care practice*** as an ***MNN***.

Thank you for your participation. Please direct all inquiries to info@nccnet.org.

## APPENDIX C

### FINAL EXAMINATION SPECIFICATION

Content Area	# of Questions
<b>1 Pregnancy and Birth Risk Factors and Complications</b>	<b>10</b>
1A Antepartum history	5
1B Intrapartum history	5
<b>2 Maternal Postpartum Assessment, Management and Education</b>	<b>39</b>
2A Physiologic changes and physical assessment	8
2B Nursing care	8
2C Lactation	8
2D Newborn feeding and nutrition	8
2E Psychosocial support and ethical issues	7
<b>3 Newborn Assessment and Management</b>	<b>29</b>
3A Transition to extrauterine life	8
3B Resuscitation and stabilization	7
3C Physical and gestational age assessment	7
3D Newborn care and family education	7
<b>4 Maternal Postpartum Complications</b>	<b>36</b>
4A Hematologic	7
4B Cardiovascular	7
4C Infection	8
4D Diabetes	7
4E Mood and substance use disorders	7
<b>5 Newborn Complications</b>	<b>36</b>
5A Cardiovascular and respiratory	8
5B Neurological and gastrointestinal	7
5C Hematologic	7
5D Infectious disease	7
5E Genetic, metabolic and endocrine	7

**Notes:** Each examination form will include one set of 25 unscored pretest items in addition to the 150 scored items. Three hours of testing time. Initial base form passing point will be determined by Angoff method in Q4 of 2019. Future passing points established through pre-equating.