

2022 Task Analysis

A Report of Midwifery Practice

Tanya Tanner, CNM, PhD, MBA, APRN, PMHNP-BC, FACNM

Chair, Research Committee

Lydia Doublestein, CM

Member, Research Committee

Cathy L. Emeis, CNM, PhD, FACNM

Member, Research Committee

Carol Snapp, CNM, DNSc, FACNM

Member, Research Committee

E. Brie Thumm, CNM, PhD, MBA, FACNM

Member, Research Committee

Deborah Schnipke, PhD

Senior Psychometric Consultant



American Midwifery Certification Board

8825 Stanford Blvd, Suite 150

Columbia, MD 21045

© 2022 All rights reserved.



american midwifery certification board

ACKNOWLEDGMENTS

Linda Hunter, CNM, EdD, FACNM
President, AMCB

Carrie Bright, IOM, CAE
Chief Executive Officer, AMCB

Jacqueline Hill
Survey Administrator &
Manager, Data and Research, AMCB

Thanks also to the **AMCB Board of Directors** for their thoughtful comments and encouragement:

Barbara W. Graves, CNM, MN, MPH, FACNM
Treasurer, Finance Committee Chair

Erin McMahon, CNM, EdD, CNM, RN, MSN
Secretary

Amy Wootten, CNM, CDR, WHNP, CNS
Examination Committee Chair

Jan Kriebs, CNM, MSN, FACNM
Certificate Maintenance Program Committee
Chair

Elle Annalise L. Schnetzler, DM, CM, FACNM
Credentials, Administration & Reporting
Committee Chair

**Robert Hawkins PhD, DNP, MPH, MS, MA,
CRNA**
Professional Liaison

Dominique Delma, MD
Professional Liaison

Rick Garcia, PhD, RN, CCM, FAAOHN
Professional Liaison

Lauren Elizabeth Cohen, MPH
Consumer Member

The authors offer a special thanks to all the CNMs and CMs who participated in this project. This task analysis work would not have been possible without their selfless contribution of time and energy.

FORWARD TO THE 2022 TASK ANALYSIS OF MIDWIFERY PRACTICE

The American Midwifery Certification Board (AMCB) is pleased to release the 2022 Task Analysis Report of Midwifery Practice.

The Institute for Credentialing Excellence created the National Commission for Certifying Agencies (NCCA) in 1987. The NCCA establishes the standards for accreditation of certification programs and requires the performance of a task analysis (job analysis). This task analysis is part of the process that informs the initial exam for Certified Nurse-Midwives (CNMs) and Certified Midwives (CMs). The NCCA periodically updates requirements, and this analysis is consistently a critical part of the requirements.

The NCCA notes that it is important for there to be an established time frame and process for conducting a task analysis and that the time frame is typically every 5 to 7 years. The AMCB aims to complete our task analysis every 5 years to accommodate the revision schedule of the American College of Nurse-Midwives (ACNM) Core Competencies. This allows the ACNM Core Competency Committee to consider the current practices of newly certified CNMs/CMs in their revisions.

The Board of Directors of the AMCB thanks the AMCB Research Committee for their thoughtful review and timely execution of the task analysis process and the report that follows.



Linda Hunter, CNM, EdD, FACNM
President, AMCB
March 2022

A BRIEF HISTORY OF AMCB MIDWIFERY CERTIFICATION

The American Midwifery Certification Board (AMCB), formerly the American College of Nurse-Midwives (ACNM) Certification Council, Inc. (ACC), serves as the national certifying body for Certified Nurse-Midwives (CNMs) and Certified Midwives (CMs) in the United States. The organization has a rigorous credentialing process, requiring completion of an Accreditation Commission for Midwifery Education (ACME) accredited midwifery program, successful performance on the national certification exam, and documented continuing competency through the AMCB Certificate Maintenance Program. This credentialing process ensures that the AMCB meets its mission of protecting and serving the public by leading the certification standards in midwifery.

Certification of nurse-midwives began in 1971. The certification exam was initially administered by the ACNM Testing Committee, which was subsequently known as the Division of Examiners and the Division of Competency Assessment. In 1991, the ACC became a separately incorporated, autonomous organization and took responsibility for certifying CNMs. The ACC was renamed the AMCB in 2005. Since then, AMCB certification processes have evolved to meet the requirements for certifying bodies imposed by the National Commission for Certifying Agencies (NCCA).

AMCB certification was limited to nurse-midwives until 1996, when CM programs were created to expand midwifery in the United States. In response, the ACME developed a mechanism to accredit professional, university-based CM education programs congruent with the educational standards set for existing CNM educational programs. The ACC, and subsequently the AMCB, certified CM graduates, requiring them to meet the same criteria and pass the same certification exam as CNMs. Eligible non-nurse-midwifery candidates are awarded the CM credential while eligible nurse-midwifery candidates are awarded the CNM credential.

Nurse-midwives were initially awarded lifetime certificates that did not require renewal, with the professional expectation that CNMs would independently obtain continuing education and maintain clinical competency. In 1996, ACC began to issue time-limited certificates and established continuing education requirements. Since 2011, the AMCB has required all certificants to meet specified recertification requirements within a 5-year recertification cycle. These requirements include completing and passing post-tests for three self-learning modules covering the full scope of midwifery practice and earning 20 approved continuing education hours.

Certification requirements have evolved over time. Beginning in 1971, aspiring certificants were required to pass both a clinical observation component and a written exam administered biannually at a central testing location. The clinical observation component was removed in 1974 after data analysis indicated that it was not required to demonstrate competency beyond the written component of the exam. From 1971 through 1995 the certification exam was comprised of written essay questions. In 1988, the ACNM Division of Competency Assessment changed from criterion-referenced to norm-referenced scoring procedures. In 1995, as the number of midwifery graduates increased, the ACC transitioned the exam format from essay questions to exclusively multiple-choice items. In 2005, the AMCB began offering computer-based testing at a location of the candidate's choice. Benefits of this transition included an increase in candidate convenience, organizational control, and exam security and a decrease in test development time and organizational costs (Mancuso et al., 2007). All professional violations and concerns about exam security are addressed by an AMCB Discipline Review Committee.

UNDERSTANDING THE AMCB TASK ANALYSIS

The mission of the AMCB is to protect and serve the public by assuring that individuals who are credentialed as CNMs and CMs have met established standards (AMCB, *n.d.a*). Central to that mission is developing and administering a certification exam to determine whether CNMs/CMs have obtained the competencies necessary for safe entry-level midwifery practice. Results from this task analysis inform the content of the certification exam and provide data that are crucial to meeting the AMCB's mission.

The AMCB is accredited by the NCCA. Task analyses are conducted by the AMCB Research Committee every 5 years to comply with NCCA accreditation requirements. Task analyses inform the development of the AMCB certification exam content outline (i.e., major domains of practice and associated tasks) and test specifications (i.e., number of test questions by major domain of practice). As the practice of midwifery evolves, the AMCB certification exam is modified to reflect trends in clinical practice (click [here](#) for additional information about the creation of the AMCB certification exam).

Requirements to maintain NCCA accreditation include conducting and publishing a psychometrically sound job (task) analysis. The purposes of conducting a task analysis include the following:

- Supporting the validity of the CNM and CM credentials;
- Delineating, analyzing, and justifying midwifery tasks and domains to be included on the AMCB certification exam;
- Ensuring that the included tasks and domains demonstrate proficient contemporary CNM/CM practice;
- Ensuring that the weighting of midwifery practice domains on the AMCB certification exam accurately reflects current practice; and
- Demonstrating that the scope of practice of CNMs and CMs supports the use of the same certifying exam.

The development of the AMCB Task Analysis of Midwifery Practice and the ACNM Core Competencies are separate-but-complementary processes conducted by the two independent

organizations. The AMCB Task Analysis is based on a comprehensive survey that is administered to newly certified CNMs and CMs who report on the tasks and skills they perform in practice. Results are one source of information used to guide the development of the AMCB certification exam. The [Core Competencies for Basic Midwifery Practice](#) are formulated by expert consensus and are approved by the ACNM Board of Directors. The Core Competencies serve as guidelines for educators, students, healthcare professionals, consumers, employers, and policymakers and constitute the basic requisites for graduates of all ACME pre-accredited or accredited midwifery education programs. See the [Understanding the Task Analysis infographic](#) for additional information.

TABLE OF CONTENTS

ACKNOWLEDGMENTS	2
FORWARD TO THE 2022 TASK ANALYSIS OF MIDWIFERY PRACTICE.....	3
A BRIEF HISTORY OF AMCB MIDWIERY CERTIFICATION	4
UNDERSTANDING THE AMCB TASK ANALYSIS	6
TABLE OF CONTENTS.....	8
LIST OF TABLES	10
LIST OF FIGURES	12
LIST OF ABBREVIATIONS.....	13
Executive Summary	15
Introduction.....	19
Purpose/Aims.....	21
Methods.....	22
Task Analysis Items	23
Scoring of Clinical Tasks and Conditions.....	25
Analysis.....	28
Results.....	31
Antepartum Care	33
Intrapartum Care	44
Postpartum Care.....	55
Newborn Care	62
Well Woman/Gynecological (GYN) Care.....	64
Contraceptive Services.....	69
Primary Care	72
Discussion.....	88
Antepartum Care	91
Intrapartum Care	95
Postpartum Care.....	99



Newborn Care	103
Well Woman/Gynecological Care	104
Primary Care	108
Limitations	115
Recommendations.....	117
Summary	119
References.....	121
APPENDIX A. AMCB Research Committee Members.....	127
APPENDIX B. Psychometrician Biography.....	128
APPENDIX C. Email Invitation to Pre-Pilot Participants.....	129
APPENDIX D. Email Invitation to Pilot Participants	131
APPENDIX E. Initial Email Notice to Main Study Participants.....	133
APPENDIX F. Initial Email Invitation to Main Study Participants	135
APPENDIX G. First Follow-Up Email Invitation Reminder to Main Study Participants	137
APPENDIX H. Second Follow-Up Email Invitation Reminder to Main Study Participants.....	139
APPENDIX I. Social Media and Website Listings	141
APPENDIX J. Additional Tables	142
APPENDIX K. Task Analysis Survey Directions	164
APPENDIX L. Exploratory Items	166
APPENDIX M. AMCB Board of Directors Approved Tasks for Removal from Exam Blueprint	167

LIST OF TABLES

Table 1. <i>Antepartum Tasks: Summary of respondents and antepartum tasks with mean and range of frequency, importance, and unweighted mean composite scores</i>	34
Table 2. <i>Antepartum Tasks: Individual tasks with mean frequency, importance, and unweighted mean composite score</i>	34
Table 3. <i>Antepartum Comments: Respondent comments about the antepartum section of the task analysis.</i>	43
Table 4. <i>Intrapartum Tasks: Summary of respondents and intrapartum tasks with mean and range of frequency, importance, and unweighted mean composite scores.</i>	44
Table 5. <i>Intrapartum Tasks: Individual intrapartum tasks with mean frequency, importance, and unweighted mean composite score.</i>	44
Table 6. <i>Intrapartum Comments: Respondent comments about the intrapartum section of the task analysis.</i>	54
Table 7. <i>Postpartum Tasks: Summary of respondents and postpartum tasks with mean and range of frequency, importance, and unweighted mean composite scores.</i>	56
Table 8. <i>Postpartum Tasks: Individual postpartum tasks with mean frequency, importance, and unweighted mean composite score.</i>	56
Table 9. <i>Postpartum Comments: Respondent comments about the postpartum section of the task analysis.</i>	62
Table 10. <i>Newborn Tasks: Summary of respondents and newborn tasks with mean and range of frequency, importance, and unweighted mean composite scores.</i>	63
Table 11. <i>Newborn Tasks: Individual newborn tasks with mean frequency, importance, and unweighted mean composite score.</i>	63
Table 12. <i>Well Woman/Gynecological (GYN) Care Tasks: Summary of respondents and well woman/gynecological care tasks with mean and range of frequency, importance, and unweighted mean composite scores.</i>	65

Table 13. *Well Woman/Gynecological Care Tasks: Individual well woman/gynecological care tasks with mean frequency, importance, and unweighted mean composite score.* 65

Table 14. *Well Woman/Gynecological Care Comments: Respondent Comments About the General Midwifery Care Section of the Task Analysis.* 68

Table 15. *Contraceptive Services Comments: Respondent Comments About the Contraceptive Services Section of the Task Analysis.* 71

Table 16. *Summary of respondents and primary care tasks with mean and range of frequency, importance, and unweighted mean composite scores.* 72

Table 17. *Primary Care Tasks: Individual primary care tasks with mean frequency, importance, and unweighted mean composite score.*..... 73

Table 18. *Primary Care Comments: Respondent Comments About the Primary Care Section of the Task Analysis.*..... 82

Table 19. *Respondent Opinions Regarding Tasks to be Added to Future Task Analyses.* 84

Table 20. *Respondent Comments about Current Certification and Recertification Requirements.* 86

LIST OF FIGURES

Figure 1. <i>Common antepartum conditions including whether respondent screens, initiates, maintains, or refers for treatment.</i>	37
Figure 2. <i>Common antepartum conditions: Independent or collaborative initiation and/or maintenance of treatment.</i>	40
Figure 3. <i>Common intrapartum conditions including whether respondent screens, initiates, maintains, or refers for treatment.</i>	48
Figure 4. <i>Common intrapartum conditions: Independent or collaborative initiation and/or maintenance of treatment.</i>	51
Figure 5. <i>Common postpartum conditions including whether respondent screens, initiates, maintains, or refers for treatment.</i>	58
Figure 6. <i>Common postpartum conditions: Independent or collaborative initiation and/or maintenance of treatment.</i>	60
Figure 7. <i>Contraceptive Services: Common contraceptive services including whether respondent counsels, initiates, or refers for the method.</i>	70
Figure 8. <i>Common chronic conditions including whether respondent screens, initiates, maintains, or refers for treatment</i>	74
Figure 9. <i>Common chronic conditions: Independent or collaborative initiation and/or maintenance of treatment.</i>	76
Figure 10. <i>Common acute conditions including whether respondent screens, initiates, maintains, or refers for treatment.</i>	78
Figure 11. <i>Common acute conditions: Independent or collaborative initiation and/or maintenance of treatment.</i>	79
Figure 12. <i>Common mental health conditions including whether respondent screens, initiates, maintains, or refers for treatment.</i>	80
Figure 13. <i>Common mental health conditions: Independent or collaborative initiation and/or maintenance of treatment.</i>	81

LIST OF ABBREVIATIONS

A1GDM	Gestational diabetes not on medication	GERD	Gastroesophageal reflux disease
A2GDM	Gestational diabetes on medication	GI	Gastrointestinal
ACC	ACNM Certification Council, Inc.	GYN	Gynecology
ACME	Accreditation Commission for Midwifery Education	H&P	History and Physical Exam
ACNM	American College of Nurse-Midwives	HIV	Human Chorionic Gonadotrophin
ADD/ADHD	Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder	HELLP	Hemolysis, Elevated Liver Enzymes and Low Platelets
AMCB	American Midwifery Certification Board	HIV	Human Immunodeficiency Virus
ANP	Adult Nurse Practitioner	HRT	Hormone Replacement Therapy
AP	Antepartum	HSG	Hysterosalpingogram
APGAR	Apgar Score	IBCLC	International Board-Certified Lactation Consultant
BMI	Body Mass Index	ICP	Intrahepatic Cholestasis of Pregnancy
BTL	Bilateral Tubal Ligation	IDA	Iron Deficiency Anemia
CBC	Complete Blood Count	IP	Intrapartum
CE	Continuing Education	IRB	Institutional Review Board
CEU	Continuing Education Unit	IUD	Intrauterine Device
CM	Certified Midwife	IUFD	Intrauterine Fetal Demise
CNM	Certified Nurse-Midwife	IUI	Intrauterine Insemination
CPM	Certified Professional Midwife	IUPC	Intrauterine Pressure Catheter
CS	Caesarean Section	L&D	Labor and Delivery
DNP	Doctor of Nursing Practice	LARC	Long-Acting Reversible Contraceptive
DOME	Directors of Midwifery Education	MAT	Medication-Assisted Treatment
DUB/AUB	Dysfunctional Uterine Bleeding/ Abnormal Uterine Bleeding	MOUD	Medications for Opioid Use Disorder
DVT	Deep Vein Thrombosis	NCAA	National Commission for Certifying Agencies
EFM	Electronic Fetal Monitoring	NFP	Natural Family Planning
ER	Emergency Room	NICU	Neonatal Intensive Care Unit
FHT	Fetal Heart Tones FNP	OB	Obstetrician/Obstetrics
FNP	Family Nurse Practitioner	OCP	Oral Contraceptive Pills
FSE	Fetal Spiral Electrode	OOH	Out-of-Hospital

LIST OF ABBREVIATIONS, cont.

PA	Physician's Assistant	SAMHSA	Substance Abuse and Mental Health Services Administration
PCOS	Polycystic Ovary Syndrome	STIs	Sexually Transmitted Infections
PE	Pulmonary Embolism	SVE	Sterile Vaginal Exam
PMAD	Perinatal Mood and Anxiety Disorder	TENs	Transcutaneous Electrical Nerve Stimulation
PMHNP	Psychiatric–Mental Health Nurse Practitioner	TOLAC	Trial Of Labor After Cesarean
PMS/PMDD	Premenstrual Syndrome/Premenstrual Dysphoric Disorder	TSH	Thyroid Stimulating Hormone
PP	Postpartum	u/s, US	Ultrasound
PPD	Postpartum Depression	URI	Upper Respiratory Tract Infection
PPROM	Preterm Premature Rupture of Membranes	US	United States
PrEP	Pre-Exposure Prophylaxis for HIV	UTI	Urinary Tract Infection
PROM	Premature Rupture of Membranes	VBAC	Vaginal Birth After Cesarean
REDCap	Research Electronic Data Capture	WH	Women's Health
RN	Registered Nurse	WHNP	Women's Health Nurse Practitioner
RCS	Repeat Cesarean Section	WIC	Women, Infants, and Children Program

Executive Summary

The American Midwifery Certification Board (AMCB) Research Committee conducted a task analysis survey of midwifery practice with support from the AMCB Board of Directors in late 2021. The two main purposes of the task analysis were to (1) inform the development of the AMCB certification exam content outline (i.e., major domains of practice and associated tasks) and test specifications (i.e., number of test questions by major domain of practice) and (2) identify current and future trends in midwifery practice.

Task Analysis Process

The task analysis process consisted of four phases: (1) questionnaire development, (2) pilot testing, (3) survey administration, and (4) data analysis.

Questionnaire Development

The 2022 Task Analysis Survey instrument as developed by the AMCB Research Committee. Items and respondent comments from the 2012 and 2017 Task Analysis Surveys were reviewed for content, relevance to current practice, and/or terminology. The 2022 Task Analysis Survey instrument was updated in several ways, including:

- Clinical conditions sections were reintroduced consistent with the 2012 Task Analysis. This reflects care provided by midwives in clinical practice and may be used to trend changes in practice.
- Tasks and conditions that overlap multiple practice domains were combined into the “General Midwifery” section when clinically appropriate. This reduced respondent burden and minimized cross-domain task duplication and potential respondent confusion. Formatting to enable analysis of the six traditional domains of midwifery practice (Antepartum, Intrapartum, Postpartum, Newborn, Well Woman/Gynecology, and Primary Care) for reporting purposes was retained throughout survey development and coding procedures.

- Select tasks that had previously been divided into constituent components were combined into a single task to reduce task repetition and respondent burden.
- Several other basic formatting improvements were made to improve user experience.

We acknowledge that women are not the only people who experience pregnancy and birth and engage midwifery services and took care to mindfully incorporate inclusive language into survey items.

Pilot Testing

The 2022 Task Analysis Survey was pilot tested in a two-step iterative process with invited participants selected to represent a variety of midwifery stakeholders. In the first step, the survey was pilot tested with midwives practicing for ≤ 5 years; methodology experts; researchers; and diversity, equity, inclusion, and belonging experts. These representatives were asked to evaluate item clarity, survey instrument structure, and to provide additional comments about the survey. Members of the AMCB Research Committee then reviewed these results and revised the survey instrument.

Representatives of the following groups were invited to participate in the second step of pilot testing: Directors of Midwifery Education (DOME), AMCB leadership, the AMCB Exam Committee, faculty and program directors from Accreditation Commission for Midwifery Education (ACME)-accredited midwifery education programs, ACME leadership, the ACNM Core Competencies Committee, and the ACNM Diversity & Inclusion Committee. Additional invitees included a psychometrician, a clinical midwifery practice director, and a methodology expert/researcher. These individuals were asked to evaluate the clarity, structure, and relevance of the survey instrument and to identify any gaps in content. They were also invited to provide additional comments about the survey. The AMCB Research Committee reviewed these responses and incorporated them into the finalized 2022 Task Analysis Survey. The final survey contained items representing the six midwifery practice domains, including 24 Certified Nurse Midwife (CNM)/ Certified Midwife (CM) demographic questions, 213 clinical tasks, 78 clinical conditions, and 9 contraceptive service items.

Survey Administration

Task analysis participation was limited to midwives who were newly certified within the last four years, with the aim of capturing the practice patterns of early-career midwives. This process ensures that the content of the AMCB certification exam closely aligns with entry-level scope of practice. Eligible respondents were invited to complete the task analysis survey via email notifications sent through the AMCB Association Anywhere® database. Efforts to maximize response rate included placing announcements on the AMCB and American College of Nurse-Midwives (ACNM) social media sites and state affiliate listservs and asking DOME members to promote the task analysis survey. Respondents were offered 10 continuing education (CE) credits toward AMCB certification renewal and optional entry into a cash raffle for a total of \$4,400 of incentives.

In total, 2,351 CNMs/CMs were eligible to take the survey and 556 CNMs/CMs responded to the questionnaire, resulting in a 23.6% response rate. Complete, usable data were obtained from 383 respondents for a total usable completion response rate of approximately 16.3%.

Data Analysis

Each clinical task was scored on a scale from 1 to 5 for frequency of performance in the respondent's midwifery practice and for the perceived importance of the task to the practice of midwifery. The frequency and importance scores were equally weighted and were summed for a final score for each task, as in the 2012 and 2017 Task Analyses. Clinical conditions were assessed according to the degree to which the respondent independently managed each condition and for the perceived importance of midwives having the knowledge required to care independently for patients with that condition.

Results

The results of the 2022 Task Analysis Survey indicate that early-career CNM/CMs are caring for a wide range of conditions, with many providing care for moderate-risk patients. Individual tasks performed by early-career midwives reflect the state of the science and practice trends across perinatal health. Newborn care was the least frequently reported domain of practice

(25.3%), and Antepartum was the most frequently reported domain (95.3%). The percentage of early-career midwives providing primary care appears to be increasing.

Results of the 2022 Task Analysis provided evidence to support considering the exclusion of seven tasks from the certification test blueprint. The AMCB Board of Directors considered the tasks recommended for exclusion and made the final decision to eliminate all seven recommended tasks. Results regarding the management and importance of clinical conditions are reported for information purposes only.

Areas for potential future exploration include strategies to collect CNM/CM population-level data to allow for more in-depth analysis of practice trends to inform the exam and credentialing process of the AMCB.

Introduction

The American Midwifery Certification Board (AMCB) is responsible for certifying all Certified Nurse-Midwives (CNMs) and Certified Midwives (CMs) practicing in the United States (US) to meet their mission of protecting and serving the public. (AMCB n.d.). The AMCB Board of Directors is an autonomous body consisting of midwives, interdisciplinary medical professionals, and a public member. The Board of Directors is responsible for developing and administering a psychometrically sound and legally defensible certification exam to candidates who meet pre-established criteria. Eligibility criteria for sitting for the national CNM/CM certification exam include graduation from an Accreditation Commission for Midwifery Education (ACME)-accredited midwifery educational program, verification of clinical competency by the program director, and proof of US state licensure as a registered nurse (for those seeking *nurse*-midwife certification).

AMCB policy requires that completion of a task (job) analysis meeting the current National Commission for Certifying Agencies (NCCA) specified criteria be undertaken every 5 years to ensure that the certification exam has practice validity and accurately reflects the varied aspects of care currently provided by newly certified midwives (AMCB, *n.d.b*). Findings from AMCB Task Analyses are provided to the American College of Nurse-Midwives (ACNM) for consideration when updating ACNM Core Competencies for Midwifery Practice and to the AMCB Exam Committee to inform the development of a test blueprint for the certification exam. The AMCB Exam Committee then ensures that the full scope of midwifery practice is accurately reflected in the certification exam. The AMCB previously conducted task analyses in 2000, 2007, 2012, and 2017.

As the midwifery profession has evolved, the content of the certification exam has been updated to reflect practice changes as reported by new certificants. The AMCB recognizes the need to consider both the frequency with which tasks are performed in clinical midwifery practice and the perceived importance of those tasks to clinical practice when constructing the task analysis. The task analysis is integral to ensuring that tasks, along with their associated

knowledge and skills, are reflected on the AMCB certification exam and that they accurately represent entry-level scope of practice.

Purpose/Aims

Knowledge of CNM/CM practice is crucial in a rapidly changing healthcare environment. The purpose of this task analysis was to better understand the tasks performed by newly AMCB-certified CNMs and CMs in clinical practice in the United States (US) in 2022. The research aims were to identify the following:

1. The frequency of tasks performed by CNMs/CMs in the six traditional clinical midwifery practice domains included on the certification examination (antepartum, intrapartum, postpartum, newborn, well woman/gynecology (GYN), and women's health/primary care);
2. The perceived importance of tasks performed by CNMs/CMs in the six traditional clinical midwifery practice domains;
3. The extent of independent and collaborative management provided by CNMs/CMs for common acute, chronic, mental health, and pregnancy-related health conditions;
4. The degree of importance placed on independent CNM/CM management of common acute, chronic, mental health, and pregnancy-related health conditions;
5. The extent to which CNMs/CMs provide care to patients with normal vs. abnormal conditions; and
6. The distribution of tasks performed by newly certified CNMs/CMs across the six traditional clinical midwifery practice domains to determine the distribution of items across each domain on the certification exam.

Methods

This study was designed as a retrospective survey of all CNMs/CMs newly certified by the AMCB to practice midwifery in the US between January 1, 2018 and September 30, 2021.

AMCB Research Committee

The AMCB Research Committee was composed of five AMCB-certified CNMs/CMs with clinical midwifery practice experience ranging from 3 to 27 years (Appendix A). They were from diverse US geographic locations and represented four of the seven ACNM membership regions. The majority held doctoral degrees and had conducted research related to midwifery care. Four of the five members were faculty at ACME-accredited CNM/CM educational programs, and all had served as clinical preceptors for midwifery students or were responsible for midwifery clinical education. Researchers brought clinical experience from community birth, private practice, institutional, and academic environments. Two of the five committee members had participated in prior AMCB Task Analyses. A psychometrician was engaged as a consultant with full participation in the design, analysis, and report of the findings (Appendix B).

Sampling

CNMs/CMs who met pre-existing criteria and who had passed the AMCB certification exam possessed adequate entry-level midwifery skills and knowledge to participate in the task analysis survey. The Research Committee determined that all midwives first certified between January 1, 2018 and September 30, 2021 and who had not opted out of participation in research met inclusion criteria for participation in the 2022 Task Analysis Survey. This population consisted of 2,351 CNMs/CMs who were identified using the AMCB certificant database Association Anywhere[®] which contained demographic information including the e-mail addresses of CNMs/CMs who were certified to practice in the US.

Ethics

Institutional Review Board (IRB) approval was not sought for the 2022 Task Analysis Survey because the task analysis is part of the standard work of the AMCB. The Research

Committee independently took ethical considerations into account during all phases of the task analysis process.

The Research Committee acknowledges that women are not the only people who experience pregnancy and birth and engage midwifery services and took care to mindfully incorporate inclusive language into survey items. In a small number of questions, intentional use of the word "woman" was used to maintain a sense of individuality and personalized care within the wording of that item. This was not done to exclude those who may not identify as women.

Survey Development

The 2022 Task Analysis Survey instrument was developed by the AMCB Research Committee. Items from the 2012 and 2017 Task Analysis Surveys were reviewed for relevance, and items were added or removed to reflect changes in practice and/or terminology. Research Committee members met in-person two times and via web conference 25 times between 2018 and 2021 to discuss the design, distribution, and analysis of the survey.

Task Analysis Items

The final task analysis Survey instrument consisted of 345 items (See Appendix C):

- Twenty-four demographic items, including one item to identify which of the six midwifery practice domains were reflected in the respondent's clinical practice for the purpose of determining which survey items were administered to each respondent;
- One item in each domain section addressing the setting in which the respondent provided that type of midwifery care;
- Two hundred thirteen clinical tasks from the six midwifery practice domains, which were scored by the respondent for frequency of performance in their clinical practice and for the perceived importance of being knowledgeable and competent to perform that task in their clinical midwifery practice;
- Seventy-eight clinical conditions scored by the respondent for degree of independent management in the clinical setting;

- Nine contraceptive services scored by the respondent for the performance and degree of independent management in the clinical setting;
- One item in each midwifery practice domain section addressing the respondent's opinions regarding item accuracy, comprehensiveness, and possible missing items;
- Three items addressing the respondent's opinions about current certification eligibility and recertification requirements;
- One item for the respondent to suggest additional areas of practice to be included in future task analyses;
- One item regarding percentage of the respondent's practice spent managing abnormal conditions;
- One item about the impact of COVID-19 on the respondent's clinical practice;
- One item addressing the percentage of certification exam items the respondent believed should be assigned to each of the six domains of midwifery practice;
- One item for the respondent to indicate the amount of time they spent completing the survey; and
- One item addressing the clarity of survey directions.

Based on feedback from the 2017 Task Analysis Survey, the Research Committee revised the survey instrument to be more concise. Each section and domain of the task analysis survey was reviewed for segmented tasks that could be combined into one complete task. Tasks that overlapped multiple practice domains and general midwifery tasks that were not exclusive to any one practice area were consolidated into a single section titled "General Midwifery Practice". All respondents were asked to respond to these items by rating the frequency that they perform the task and their perceived importance of the task to their midwifery practice. Respondents who indicated they were not in clinical practice were only asked to rate the importance of the item.

Items addressing newborn care were integrated into the intrapartum and postpartum care sections. The Research Committee hypothesized that some midwives who only provided newborn care during the inpatient intrapartum and postpartum periods instead of in the outpatient

setting would not indicate that they provided newborn care. Were this the case, these respondents would not have access to newborn tasks on the survey. Coding procedures were designed to retain the ability to evaluate newborn tasks as a separate practice domain because it is one of the six domains of midwifery practice included on the certification exam (AMCB, 2022).

Scoring of Clinical Tasks and Conditions

Survey respondents were asked to score each clinical task with respect to the frequency that they performed the task in their clinical practice and the degree of importance they attributed to the task. Response options and associated scores were as follows: Frequency: I do not perform this task (1), Once or twice per year (2), Quarterly (3), Monthly (4), or Daily or weekly (5); and Importance: Not important (1), Somewhat important (2), Important (3), or Very important (4). This resulted in the possibility of a maximum unweighted mean composite score of 9 for each item.

After deliberation, the decision was made to include **clinical conditions** on the task analysis consistent with the 2012 Task Analysis Survey. Clinical conditions are not part of the content outline of the certification exam blueprint, but they reflect clinical care provided by midwives, may be used to track trends in practice, and are deserving of continued surveillance.

Research Committee members reviewed the survey to assess it for clarity, logic, flow, and structure. The preliminary 2022 Task Analysis Survey instrument was approved by the AMCB Research Committee and advanced to the pilot-testing phase with midwifery stakeholders, including the AMCB Board of Directors.

Pilot Study

A two-step survey pilot process was undertaken prior to administering the final 2022 Task Analysis Survey. This pilot provided an opportunity for stakeholders within the CNM/CM community and the AMCB Board of Directors to participate in the survey design process. During the first step, the survey was sent to eight stakeholders, including midwives practicing for ≤ 5 years; methodology experts; researchers; and diversity, equity, inclusion, and belonging

experts. They were asked to evaluate the initial draft of the 2022 Task Analysis Survey for item clarity and survey instrument structure, as well as to provide additional comments. The Research Committee considered these responses when designing the task analysis survey instrument used in the second step of the pilot study.

The second step of pilot testing involved distributing the revised survey instrument to representatives of the following groups: DOME (one representative), AMCB leadership (five representatives), AMCB Exam Committee (12 representative), faculty and program directors from ACME-accredited midwifery education programs (five representatives), ACME leadership (one representative), the ACNM Core Competencies Committee (one representative), the ACNM Diversity & Inclusion Committee (three representatives), a psychometrician (one representative), a clinical midwifery practice director (one representative), and a methodology expert/researcher (one representative). These individuals were asked to evaluate the clarity, structure, and relevance of the survey instrument and to provide any additional comments about the survey. The AMCB Research Committee reviewed these responses and incorporated them into the finalized 2022 Task Analysis Survey.

Survey Administration

Data for the survey pilot process and the 2022 Task Analysis were collected and managed using Research Electronic Data Capture (REDCap) Version 10.3.4, which was hosted at AMCB headquarters. REDCap is a secure web application designed for building and managing online surveys and databases for research studies. It provides an intuitive interface for validated data entry, audit trails for tracking data manipulations and export procedures, automated export procedures for seamless data downloads to common statistical packages, and procedures for importing data from external sources (Harris et al., 2009).

The task analysis survey was available for completion between November 1, 2021 and November 28, 2021. CNMs/CMs who met the specified inclusion criteria were sent email announcements about the survey to the email on file with AMCB on October 18, 2021 and November 1, 2021. The second email invited potential respondents to complete the survey and

provided information about the purpose of the task analysis, estimated time to complete the survey, a description of the incentives for participation, and instructions for accessing the survey. Specific instructions for completing the survey were available after the respondent accessed the survey in REDCap. For convenience, participants had the option to save their responses and return later to complete the survey. Three reminder emails with similar content were sent on November 8, 2021; November 15, 2021; and November 19, 2021. Announcements about the task analysis were sent to selected stakeholders, including AMCB, DOME, ACNM, and other individuals for dissemination through multiple media platforms, including targeted social media (See Appendix C-I). Incentives for participation included drawings for e-gift cards (ranging from \$100 to \$500) and 10 contact hours towards AMCB recertification.

Analysis

Data Set

Data were analyzed using the statistical software package SPSS (version 26) and Microsoft Excel (version 365). All data were cleaned prior to analysis, as described below.

Of the 2,572 CNMs/CMs certified between January 2018 and September 2021, 221 had previously indicated a desire to opt out of participation in research and were not contacted about the task analysis. Email invitations were sent to the remaining 2,351 potential participants, of which 42 were returned or “bounced back.” In total, 2,309 individuals were successfully sent the survey invitation.

Five hundred fifty-six people (23.6%) opened the survey and 88 responses were subsequently excluded from data analysis because the respondent did not respond to any survey question. Of the remaining 468 surveys, 54 (2.3%) were excluded from all or part of the data analysis for not currently practicing midwifery and 31 (1.3%) were excluded for not rating any tasks, leaving 383 (16.3%) survey responses in the primary analysis group (See Appendix J).

There was participant attrition throughout the survey, with 280 respondents answering the final survey questions and clicking the “submit” button. Respondents generally completed each section of the survey that they started and discontinued responding between survey sections. Survey sections in which a respondent answered any question were included in the data analyses for that section. All confidence intervals were at or below $\pm 5\%$, which is generally regarded as an acceptable margin of error in survey results (See Appendix J).

Evaluation and Retention or Elimination of Clinical Tasks

As in the 2012 and 2017 Task Analyses, an unweighted approach was used to determine which of the clinical tasks, if any, the Research Committee would recommend to the AMCB Board of Directors to be considered for removal from the certification examination blueprint. The Research Committee reaffirmed that item importance and frequency scores should be weighted equally in recognition that frequency of task performance does not necessarily denote

the importance of being knowledgeable and competent to perform the task (e.g., managing cord prolapse and attending breech birth).

Unweighted mean composite scores were calculated by combining the mean importance and mean frequency scores for each clinical task. The Research Committee examined each task with an unweighted mean composite score of < 5 and discussed whether it was appropriate to recommend that the task be removed from the certification exam blueprint based on whether it was inherent to the philosophy and practice of midwifery. For example, although the task “Attends birth of infant in breech position” had an unweighted mean composite score of < 5 (4.1), the Research Committee agreed that it should not recommend that this task be eliminated from the exam blueprint due to the importance of being able to perform this infrequent yet essential task.

Calculation of the Certification Exam Specification Weights

The allocation of certification exam items among the six core midwifery practice domains (Antepartum, Intrapartum, Postpartum, Newborn, Gynecology, and Primary Care) is referred to as “specification weight.” These weights were computed for each domain based on a combination of the mean ratings of importance and frequency for each task as assigned by survey respondents in combination with survey respondent-suggested weights (See Appendix J). Respondent-suggested weights were calculated based on the following survey item: “What percentage of exam items would you assign to each of the following six domains of midwifery practice based on its importance to clinical midwifery practice?” Participants were asked to provide a value for each of the six practice domains so that the total summed to 100%.

An additive model was used to calculate preliminary test percentages for the exam. The mean importance and mean frequency ratings of all clinical task items in each practice domain were combined to produce weights for the six major practice domains. This information was then aggregated with survey respondent-suggested percentages, and the results are shown in Appendix J. Thus, the calculation of test specification weights was accomplished in the following steps:

1. Mean frequency and importance ratings were summed for each task to calculate the task's unweighted mean composite score.
2. Unweighted mean composite scores were summed for all tasks within each practice domain.
3. Unweighted mean composite scores for all practice domains were then summed, which provided the grand total.
4. The total unweighted mean composite score for each practice domain was divided by the grand total and multiplied by 100 to provide the percentage of items in each practice domain.
5. Survey respondent-suggested mean percentages for each practice domain were then added to the percentage for the same practice domain calculated in step 4, and the result was divided by two. Thus, final test specification weight estimates were calculated as the average of weights derived from frequency and importance items and respondent-suggested weights. The number of items was produced based on the corresponding percentages.
6. Steps 1 through 5 were repeated, excluding tasks flagged for having a low unweighted mean composite score (< 5.0), to provide a range of preliminary test percentages based on tasks that were eligible for removal from the content outline.

The Research Committee acknowledges that the ongoing effects of COVID-19 have illustrated the potential for external factors to influence midwifery practice (See Appendix J). This likely influenced the results and response rate to the 2022 Task Analysis Survey. Further deliberation by the Research Committee resulted in a consensus-driven recommendation that each of the six core practice domains be allocated at least 10% of the total number of items on the exam. Therefore, the Research Committee recommended that the final test specification weights be based on trends in data and not on this single cross-sectional analysis with the limited response rate of 16.3%.

Results

Demographics

Tables in Appendix J provide demographic data about task analysis survey respondents. A comparison of the survey respondents, the survey population, and the AMCB population revealed that the demographics of task analysis respondents represented AMCB population demographics. Consistent with the survey and AMCB populations, most of the respondents were CNMs, female, and White. Five (1.3% of respondents analyzed) CMs completed the task analysis survey. The mean age of survey respondents was 36.3 years. The highest-earned degrees were a master's degree ($n = 331$, 86.4%), Doctor of Nursing Practice ($n = 47$, 12.3%), or PhD ($n = 3$, 0.8%).

Most CNMs/CMs ($n = 334$, 87.2%) had worked as RNs before certification for a mean of 8.3 (SD = 5.3) years. Most respondents ($n = 414$, 88.5%) reported that they were working as midwives, with 292 (76.2%) working full-time and 91 (23.8%) working part-time or on a per diem basis. Of the 54 who were not working as midwives, 45.3% ($n = 24$) were actively seeking employment. Respondents reported working in 46 different states, and 20 (5.4%) responding CNMs/CMs practiced in more than one state. The majority of respondents practiced in cities with populations over 100,000. Most of the respondents ($n = 169$, 52.5%) reported that their only certification was as a CNM/CM, but 92 (28.6%) were also certified as Women's Health Care Nurse Practitioners, 14 (4.3%) as Family Nurse Practitioners, and 19 (5.9%) as Certified Lactation Consultants. Additionally, 95.3% ($n = 365$) of respondents had prescriptive authority.

The primary midwifery employers were hospitals ($n = 127$, 33.2%), followed by physician groups ($n = 111$, 29.0%). Three quarters ($n = 289$, 75.5%) of respondents had hospital privileges, and 19 (5.0%) had pending hospital privileges, CNMs/CMs with hospital staff membership held medical staff status ($n = 106$, 36.7%) or allied health staff status ($n = 45$, 15.6%).

Respondents reported spending approximately 55 minutes responding to the survey, and the majority thought the questions were clear. In the free-text section, 11 respondents

commented on questions about the importance of tasks, and 95% of respondents reported that the current eligibility requirements for certification and requirements for subsequent recertification were appropriate to achieve and maintain competence as a midwife.

Comments about eligibility for initial certification included requiring a residency program in midwifery education. There were several comments stating that nurse licensure should not be required for midwifery certification and that there is consumer confusion about the CM vs. the CNM credential. In contrast, there was a single comment that midwives should be required to practice as a nurse prior to enrolling in a midwifery program. There was also concern expressed about safety attestation residing solely with the midwifery program director. Several questions focused on the redundancy of attestation, verification, and educational program completion.

Survey Procedures

Tasks were presented according to midwifery practice domains and respondents were only asked to rate the tasks associated with general midwifery practice and the domains in which they provided care. Survey respondents were asked to score each task with respect to both the frequency that they perform the task in their clinical practice and the degree of importance they attribute to the task. There was a possibility of a maximum unweighted mean composite score of 9 for each item. Items with an unweighted mean composite score of < 5 were considered by the Research Committee for recommendation to the AMCB Board of Directors for removal from the certification exam blueprint. All items recommended to the Board for removal from the test blueprint were selected by consensus of the AMCB Research Committee.

Tables presenting the number of tasks and the mean importance, frequency, and unweighted mean composite scores for all tasks included in each midwifery practice domain area of the task analysis survey are presented below. These are followed by a list of each individual task with its mean frequency, importance, and unweighted mean composite score. Tasks that were recommended to the AMCB Board of Directors for consideration for removal from the test blueprint are highlighted in *bold and italicized* font.

Participant responses to items addressing common conditions encountered within each midwifery practice domain are presented below *for information only* and are depicted in bar graphs reflecting how the respondent managed each condition in their clinical practice. These data were not considered during the decision-making process to recommend items for inclusion or removal from the certification exam blueprint. The information presented includes whether the respondent screens for the condition, initiates treatment for the condition, maintains treatment for the condition, or refers patients with the condition to another provider for management (respondents were not limited to one response and may have chosen more than one). Information about whether a respondent initiates and maintains treatment independently or collaboratively is also included, where applicable. Free-text comments made by respondents are found after the tables and figures in each domain.

Midwifery Practice Domains

Antepartum Care

Clinical Tasks.

The two tables below present a summary of respondents and clinical tasks relating to the antepartum period (Table 1) and the individual frequency, importance, and unweighted mean composite scores for each clinical task (Table 2).

Clinical Conditions.

The figures below indicate whether the respondent screens, initiates treatment, maintains treatment, or refers for treatment of the common antepartum conditions presented (respondents may have chosen more than one response) (Fig. 1). Information about whether a respondent initiates and/or maintains treatment independently or collaboratively is also included where applicable (Fig. 2).

Table 1. Antepartum Tasks: Summary of respondents and antepartum tasks with mean and range of frequency, importance, and unweighted mean composite scores

Number of tasks	<i>n</i> = 46
Number of respondents	<i>n</i> = 312; <i>n</i> = 383
Number of respondents who provide this care	<i>n</i> = 365 (95.3%)
Where most respondents provide this care	Outpatient clinic or office (83.8%)
Frequency scores	Mean (SD) = 4.3 (0.8) Range = 3.6
Importance scores	Mean (SD) = 3.7 (0.3) Range = 1.6
Unweighted mean composite scores	Mean (SD) = 7.9 (1.0) Range = 4.6

Table 2. Antepartum Tasks: Individual tasks with mean frequency, importance, and unweighted mean composite score

Task	Mean Frequency	Mean Importance	Mean Composite Score
Evaluates for signs of pregnancy	4.7	3.8	8.5
Assesses the woman's acceptance of pregnancy	4.8	3.8	8.6
Orders and evaluates serial hCG levels when indicated	4.3	3.8	8.1
Provides counseling and support for women experiencing early pregnancy loss	4.1	3.9	8.0
Evaluates historical, physical, and laboratory data to determine current gestational age and due date	4.8	3.9	8.7
Orders first-trimester ultrasound to establish or confirm gestational age	4.6	3.8	8.4
Assesses for causes of first trimester bleeding and refers for treatment as indicated	4.3	3.8	8.1
Orders immunizations in pregnancy	4.5	3.7	8.2
Evaluates prior obstetric and medical history to assess risk status during current pregnancy	4.9	3.9	8.8
Screens and refers as indicated for violence or abuse during pregnancy	4.5	3.8	8.4
Screens for substance use during pregnancy and refers as appropriate (e.g., tobacco, alcohol, cannabis, prescription, and non-prescription substances)	4.7	3.8	8.5

Table 2. Antepartum Tasks: Individual tasks with mean frequency, importance, and unweighted mean composite score, cont.

Task	Mean Frequency	Mean Importance	Mean Composite Score
Refers to community resources as indicated (e.g., WIC, nutrition, social services)	4.1	3.7	7.7
Counsels about normal physiology of pregnancy, common discomforts, and self-care during pregnancy	4.9	3.9	8.7
Evaluates nutritional status by calculating pre-pregnancy BMI, obtaining a diet history, and evaluating interval pregnancy weight gain patterns	4.6	3.6	8.3
Assesses and provides counseling for possible teratogen exposure	4.2	3.5	7.7
Performs basic genetic counseling including genetic screening and diagnostic testing options and refers as indicated	4.6	3.7	8.3
Orders and interprets routine laboratory tests in pregnancy	4.8	3.9	8.7
Orders and interprets lab results to diagnose anemias in pregnancy	4.7	3.8	8.6
Performs pelvimetry to evaluate the bony pelvis	2.5	2.3	4.8
Identifies deviations from normal pregnancy	4.8	3.9	8.7
Auscultates FHTs with pinard, fetoscope, or doppler	4.8	3.9	8.7
Determines uterine size or fundal height using bimanual exam, fingerbreadths, and/or centimeter tape	4.8	3.8	8.7
Orders Rh immunoglobulin when indicated during pregnancy	4.5	3.9	8.4
Orders ultrasounds to assess fetal growth when indicated	4.6	3.8	8.4
Performs Leopold's maneuvers to determine presentation, lie, position of fetus, and estimated weight of fetus	4.8	3.8	8.7
Counsels about fetal movement awareness and/or counting	4.8	3.8	8.7
Counsels about the use of complementary and alternative therapies in pregnancy	4.7	3.7	8.3
Counsels about the use of over-the-counter medications in pregnancy	4.8	3.8	8.6
Assesses and treats for common acute illnesses during pregnancy (e.g., upper respiratory infections, gastroenteritis, etc.)	4	3.4	7.3
Refers for ultrasound to evaluate fetal anatomy and rule out fetal abnormality	4.6	3.8	8.4
Performs, orders, and/or interprets Nonstress tests (NST) to evaluate fetal wellbeing	4.7	3.8	8.5
Orders and interprets Biophysical Profile (BPP) to evaluate fetal wellbeing	4.3	3.8	8.0
Orders third-trimester limited ultrasound to assess amniotic fluid volume, fetal presentation, and/or placental location	4.4	3.7	8.1

Table 2. Antepartum Tasks: Individual tasks with mean frequency, importance, and unweighted mean composite score, cont.

Task	Mean Frequency	Mean Importance	Mean Composite Score
<i>Provides group or Centering Pregnancy (TM) care</i>	<i>1.3</i>	<i>2.9</i>	<i>4.2</i>
Determines appropriateness of vaginal birth after cesarean (VBAC) and counsels about risks and benefits	3.6	3.7	7.3
Counsels about choice of birth setting (i.e., home, birth center, hospital)	3.3	3.4	6.7
Discusses pain management options for labor	4.7	3.8	8.5
Counsels women about risks and benefits of labor induction	4.6	3.8	8.4
Provides or refers to prepared childbirth, lactation, and/or parenting classes	4.4	3.7	8.1
Provides counseling and support for women who experience intrauterine fetal demise	2.8	3.8	6.6
Provides support during role transition into parenthood	4.3	3.7	7.9
Refers for colposcopy in pregnancy	2.7	3.3	6.0
Counsels, assesses for, and treats Sexually Transmitted Infections (STIs) in pregnancy	4.4	3.8	8.2
Assesses second and third trimester vaginal bleeding and refers for care as indicated	4.1	3.8	7.9
Provides care for women with maternal serum antibodies associated with the potential for fetal compromise (e.g., Kell)	2.5	3.3	5.7
Provides options counseling for pregnancy, including pregnancy continuation and termination	3.8	3.7	7.5

Figure 1. Common antepartum conditions including whether respondent screens, initiates, maintains, or refers for treatment.

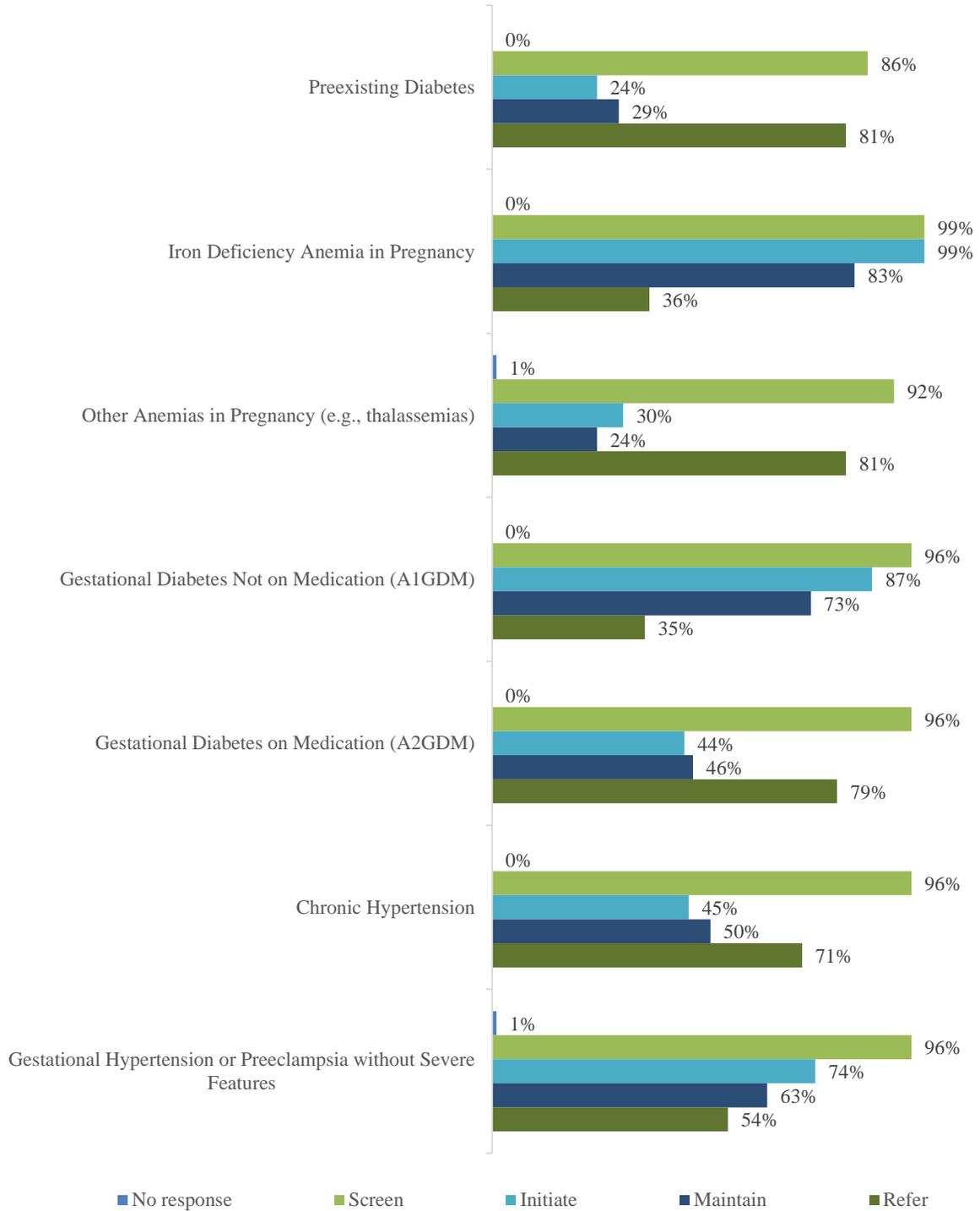


Figure 1. Common antepartum conditions including whether respondent screens, initiates, maintains, or refers for treatment, cont.

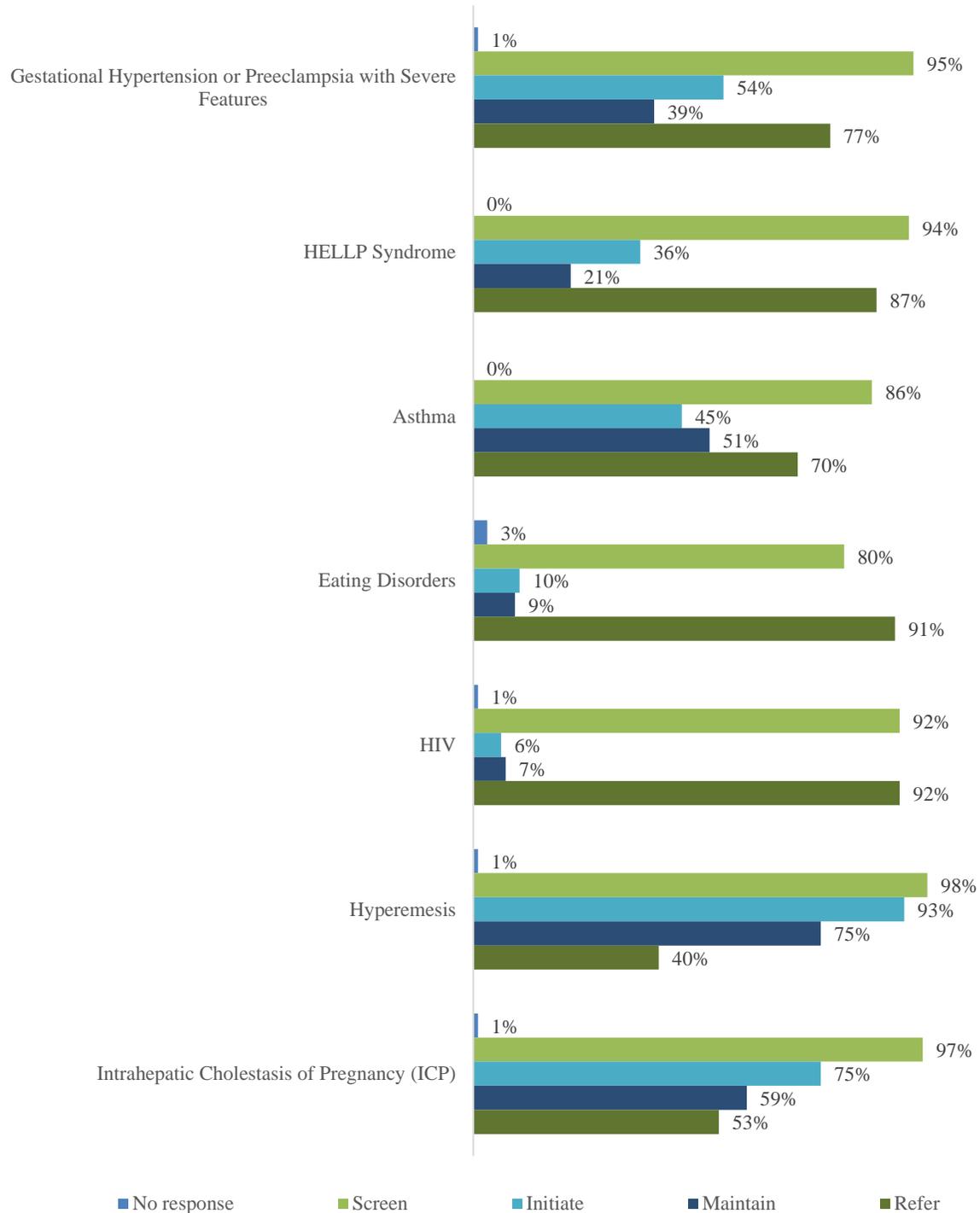


Figure 1. Common antepartum conditions including whether respondent screens, initiates, maintains, or refers for treatment, cont.

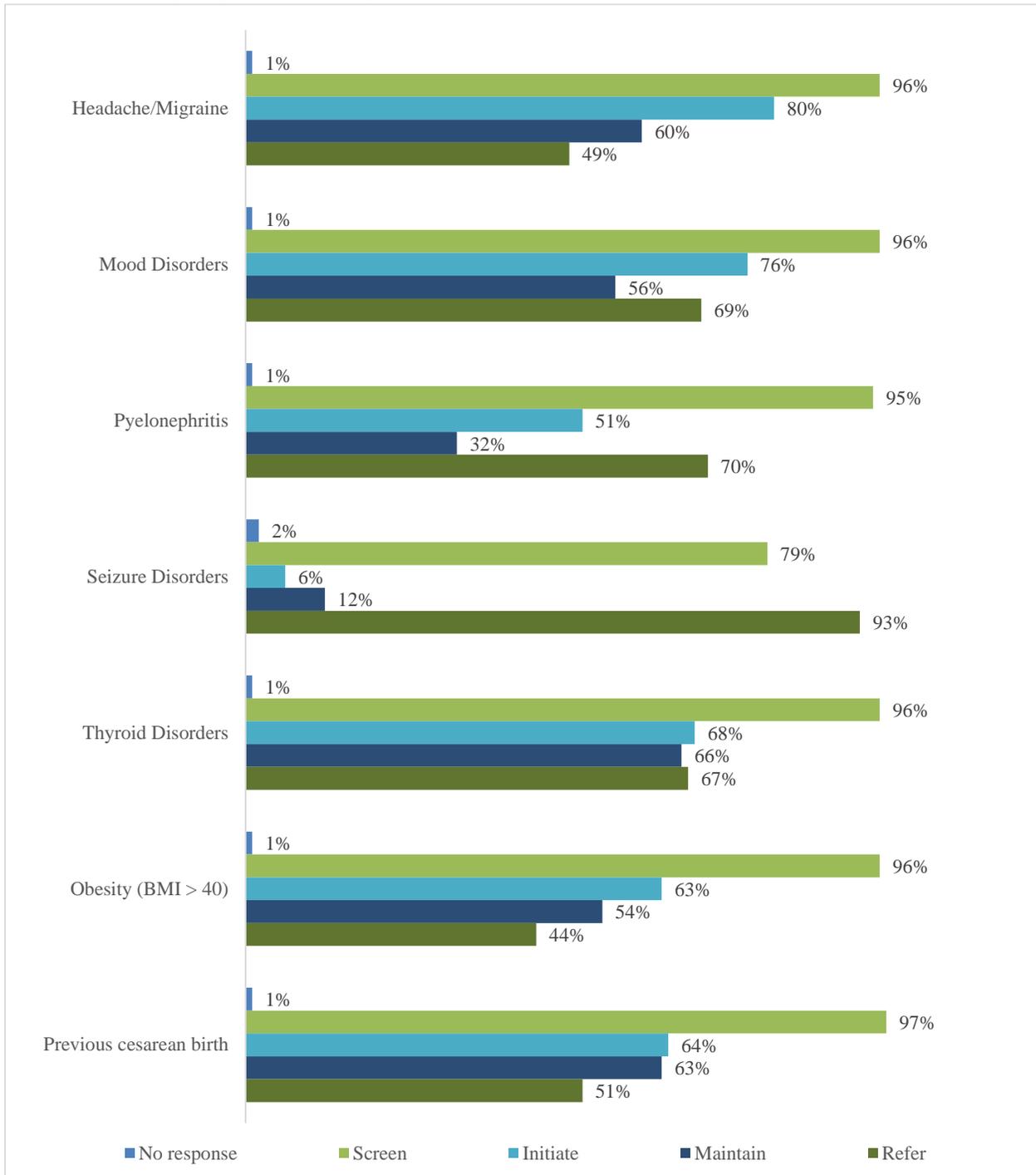


Figure 2. Common antepartum conditions: Independent or collaborative initiation and/or maintenance of treatment

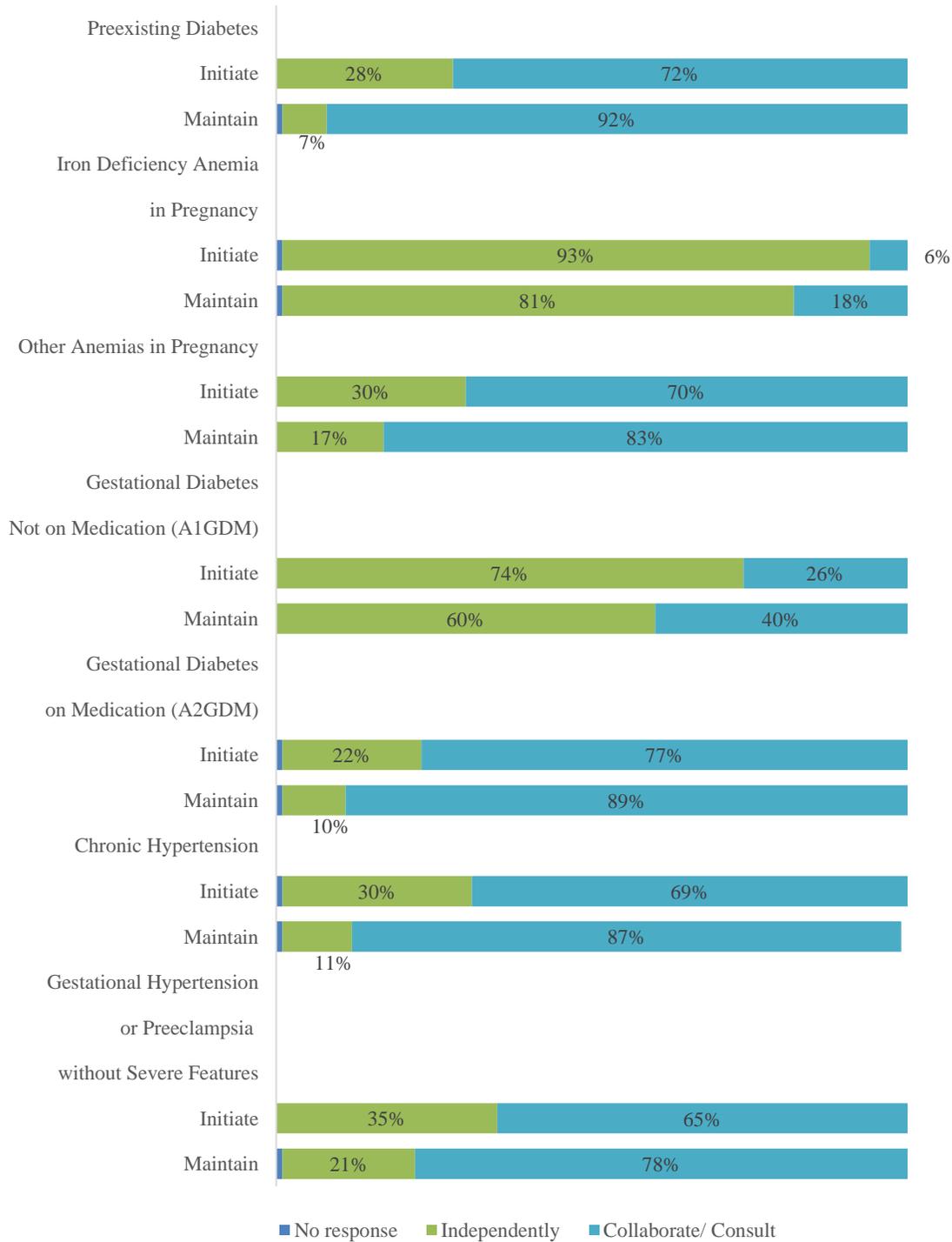


Figure 2. Common antepartum conditions: Independent or collaborative initiation and/or maintenance of treatment, cont.

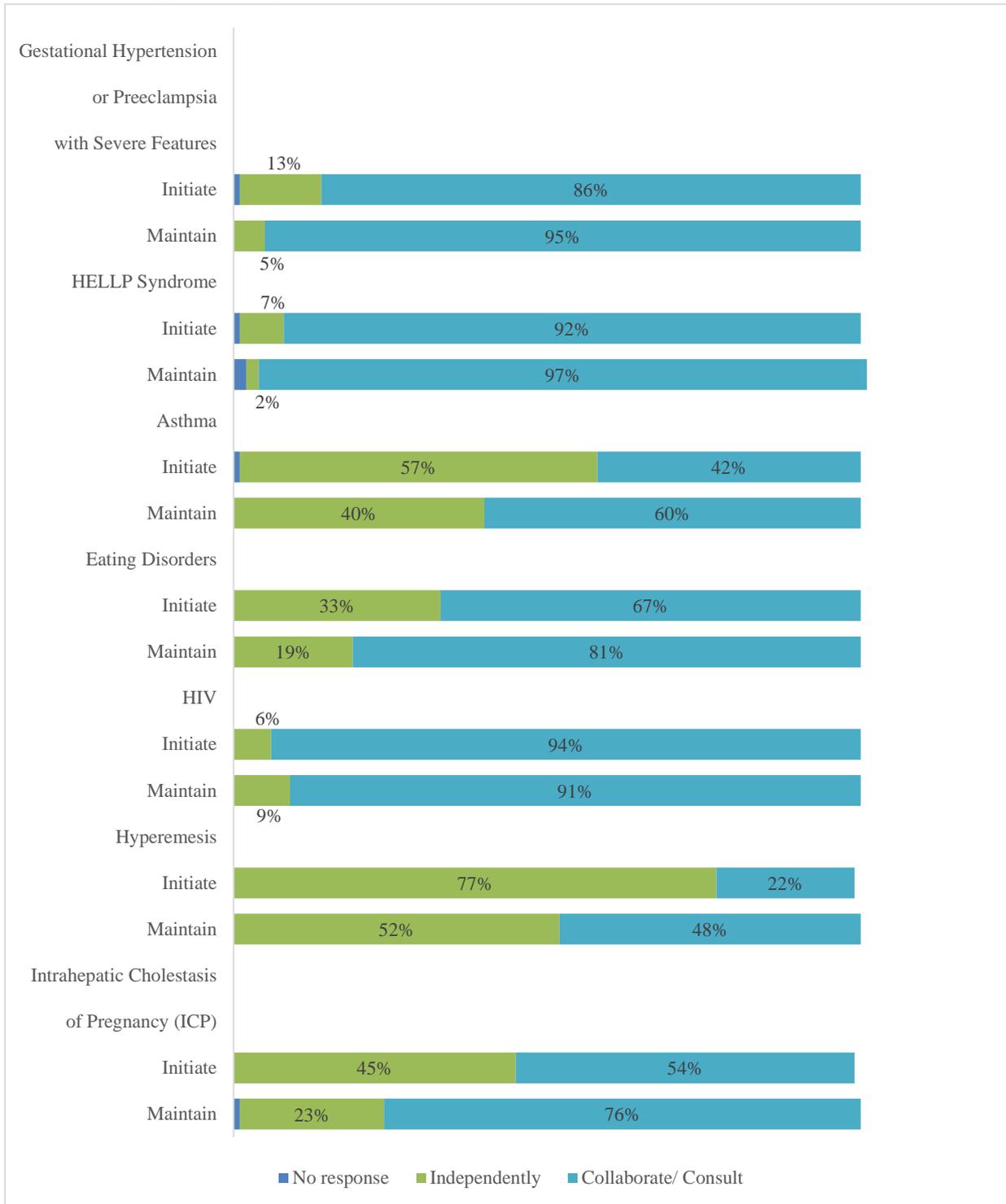
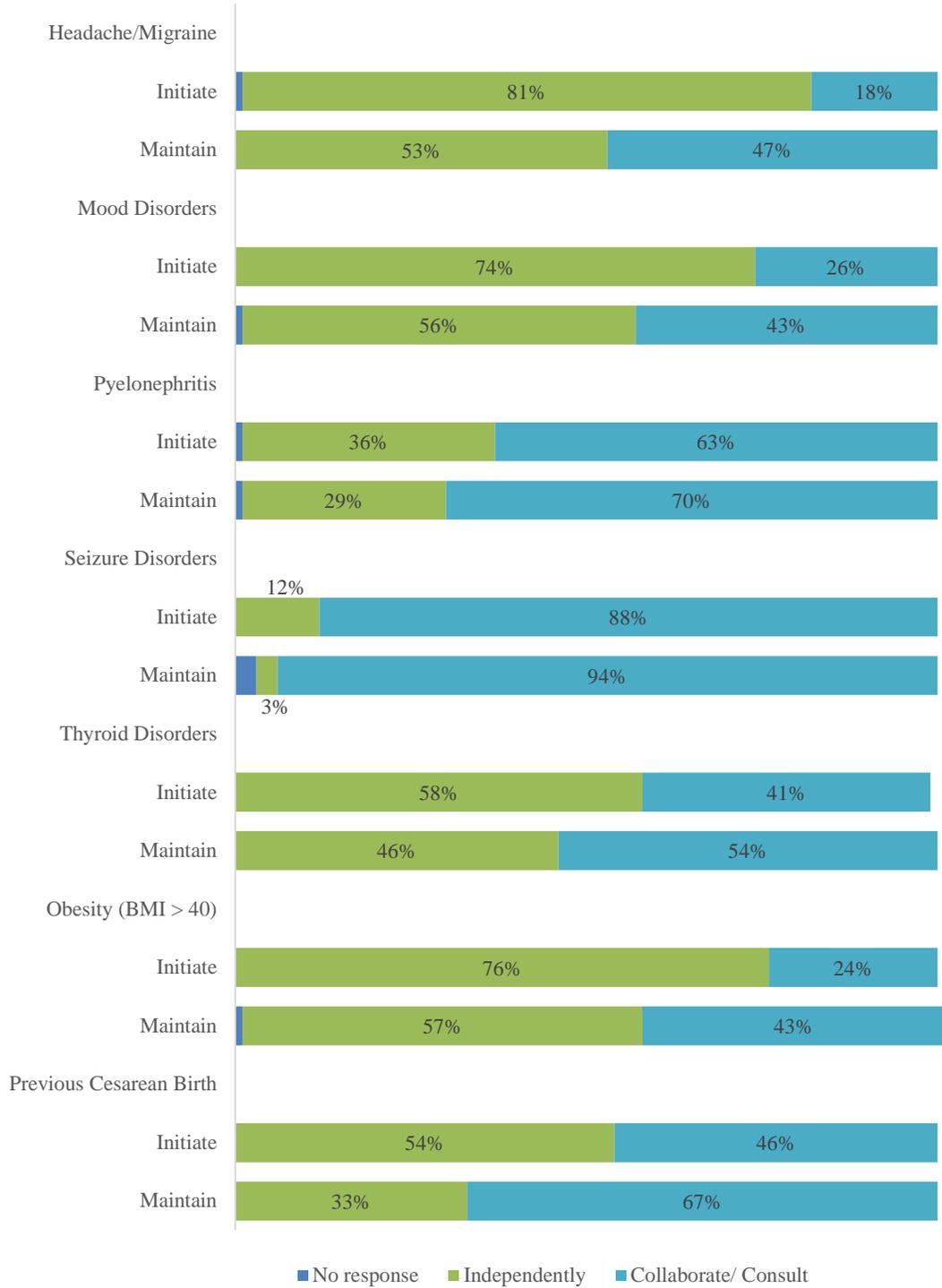


Figure 2. Common antepartum conditions: Independent or collaborative initiation and/or maintenance of treatment, cont.



Antepartum Comments.

Table 3 lists comments provided by respondents after completing the antepartum section of the task analysis.

Table 3. Antepartum Comments: Respondent comments about the antepartum section of the task analysis.

Tasks
1. Recommend Spinning Babies hands-on training for all midwives or incorporate into their program.
2. I also perform male newborn circumcision weekly; it is a important skill but one I only perform to be a "team player" in my setting
3. I typically only do the initial visit after a 6-8 w US and then they are referred to primary prenatal care giver
4. #9. While I don't order, I do advise. We do not stock Immunizations for pregnancy. #43. I only deliver in acute care setting
5. Centering is currently on hold due to COVID-19 we hope to get it started again soon
6. We stopped Centering when Covid started. We were providing this before. -We have lactation consultants available to all our patients. We give basic breastfeeding information and they do more in-depth teaching.
7. All of the antepartum care I perform I have 7 OBGYN's available for consult and co-management when indicated.
8. I only provide early pregnancy care as I no longer attend births- I do primary care and GYN care and 1st trimester care.
9. Yes I assess weight gain/loss but not BMI.
10. Faculty, I do not personally perform any of these.
Conditions
1. Previous cesarean birth management, not sure how can manage entirely independently, always may need repeat cesarean involving MD
2. Many of these depending on the specifics I either manage independently or collaborate on (ex: hypothyroid I do independently, hyperthyroid I collaborate)
3. It would be nice to have the option to choose both independently and co-manage/consult, as both occur depending on the situation.
4. Our RCS mom or the ones who desire TOLAC do consult with OBGYN we are first assist for CS and primary for TOLAC after consult
5. Previous c/s birth- I see patients for prenatal care up to 37 weeks, then refer to OBGYN for delivery
6. Faculty, I do not personally perform any of these.

Intrapartum Care

Clinical Tasks.

The two tables below present a summary of respondents and clinical tasks relating to the intrapartum period (Table 4) and the individual frequency, importance, and unweighted mean composite scores for each intrapartum clinical task (Table 5).

Table 4. Intrapartum Tasks: Summary of respondents and intrapartum tasks with mean and range of frequency, importance, and unweighted mean composite scores.

Number of tasks	<i>n</i> = 64
Number of respondents	<i>n</i> = 272
Number of respondents who provide this care	<i>n</i> = 345 (90.1%)
Where most respondents provide this care	Hospital (84.0%)
Frequency scores	Mean (SD) = 3.7 (1.2) Range = 3.7
Importance scores	Mean (SD) = 3.6 (0.3) Range = 1.5
Unweighted mean composite scores	Mean (SD) = 7.3 (1.5) Range = 5.3

Table 5. Intrapartum Tasks: Individual intrapartum tasks with mean frequency, importance, and unweighted mean composite score.

Task	Mean Frequency	Mean Importance	Mean Composite Score
Evaluates for onset of labor	4.8	3.9	8.7
Initiates a plan to meet the nutritional needs of the laboring woman	4.7	3.7	8.5
Determines position of presenting part by Leopolds and vaginal exam	4.8	3.9	8.7
Estimates gestational age incorporating all available data	4.8	3.8	8.6
Estimates fetal weight	4.8	3.6	8.4
Assesses the need for cervical ripening agents	4.5	3.8	8.3
Determines appropriate labor induction method	4.5	3.8	8.3
Administers pharmaceutical cervical ripening agents (e.g., misoprostol, Cervidil®)	4.2	3.7	7.8

Table 5. Intrapartum Tasks: Individual intrapartum tasks with mean frequency, importance, and unweighted mean composite score, cont.

Task	Mean Frequency	Mean Importance	Mean Composite Score
Places devices for mechanical cervical preparation (foley bulb, Cook balloon)	4.0	3.7	7.7
Monitors labor pattern through palpation to observe the strength, duration, and frequency of contractions	4.7	3.8	8.5
Monitors progress of labor with vaginal examination to determine cervical position, effacement and dilation, descent of presenting part, and position of presenting part	4.8	3.8	8.7
Develops a plan with the woman for decreasing discomfort in labor	4.8	3.8	8.7
Monitors fetal heart rate by using intermittent auscultation	4.2	3.8	7.9
Monitors fetal heart rate and contractions with external electronic fetal monitor	4.4	3.7	8.1
Determines status of amniotic membranes by clinical examination (e.g., sterile spec exam, observation for pooling of fluid, use of nitrazine paper, and/or exam of fluid for ferning)	4.5	3.8	8.3
Determines status of amniotic membranes by amniotic protein markers (e.g. AmniSure®)	3.5	3.4	6.9
Performs artificial rupture of membranes (AROM)	4.4	3.6	8.0
Evaluates fetal condition following rupture of membranes to determine fetal wellbeing	4.7	3.9	8.6
Provides emotional support during labor	4.8	3.9	8.7
Evaluates physical response to process of labor	4.8	3.9	8.7
Informs about and initiates use of complementary analgesic therapies (e.g., TENS, sterile water papules, or hydrotherapy)	3.9	3.6	7.5
Orders and/or administers nitrous oxide	2.6	3.2	5.9
Orders and/or administers narcotic analgesics	4.0	3.5	7.5
Initiates a plan of care for managing deviations from the normal progress of labor	4.7	3.8	8.5
Independently orders Pitocin for augmentation of labor	4.1	3.7	7.8
Performs manual rotation of fetus in occiput posterior position (OP)	1.7	2.9	4.6
Places intrauterine pressure catheter (IUPC) for monitoring uterine contractions	3.6	3.5	7.1
Manages care of the woman with an epidural	4.2	3.6	7.9

Table 5. Intrapartum Tasks: Individual intrapartum tasks with mean frequency, importance, and unweighted mean composite score, cont.

Task	Mean Frequency	Mean Importance	Mean Composite Score
Manages common complications after epidural placement (e.g., hypotension)	3.5	3.5	7.0
Applies internal fetal scalp electrode	3.5	3.5	7.0
Manages amnioinfusion	3.1	3.4	6.5
Evaluates response to and monitors for side effects of medications used to treat intrapartum complications (e.g., magnesium sulfate, tocolytics)	3.4	3.5	6.9
Promotes progress in the second stage of labor (e.g., verbal encouragement, use of alternative positions to facilitate birth)	4.8	3.9	8.7
Attends and manages waterbirth	2.0	3.1	5.1
Attends and manages birth with mother in various non-supine birthing positions (e.g., side-lying, knee-chest, squatting)	4.5	3.8	8.3
Attends birth of infant in occiput posterior (OP) position	3.6	3.7	7.3
Attends birth of infant in breech position	1.1	3.0	4.1
Attends birth of infant with face presentation	1.5	3.1	4.5
Implements maneuvers to resolve shoulder dystocia	3.0	3.9	6.9
Manages nuchal cord	4.3	3.8	8.1
Performs delayed cord clamping when appropriate	4.8	3.9	8.7
Performs vacuum assisted birth	1.1	2.5	3.6
Administers local anesthesia	4.0	3.6	7.6
Administers pudendal anesthesia	1.1	2.4	3.4
Performs median episiotomy when indicated	1.7	3.0	4.8
Performs mediolateral episiotomy when indicated	1.7	3.0	4.7
Repairs median episiotomy	1.9	3.2	5.1
Repairs mediolateral episiotomy	1.8	3.2	5.0
Repairs 1st or 2nd degree lacerations of the perineum	4.5	3.9	8.4
Evaluates rectal integrity following birth with episiotomy or extensive lacerations	3.5	3.7	7.2
Identifies signs of placental separation	4.7	3.8	8.6
Actively manages the third stage of labor (e.g., gentle cord traction, immediate Pitocin use after birth)	4.6	3.8	8.4

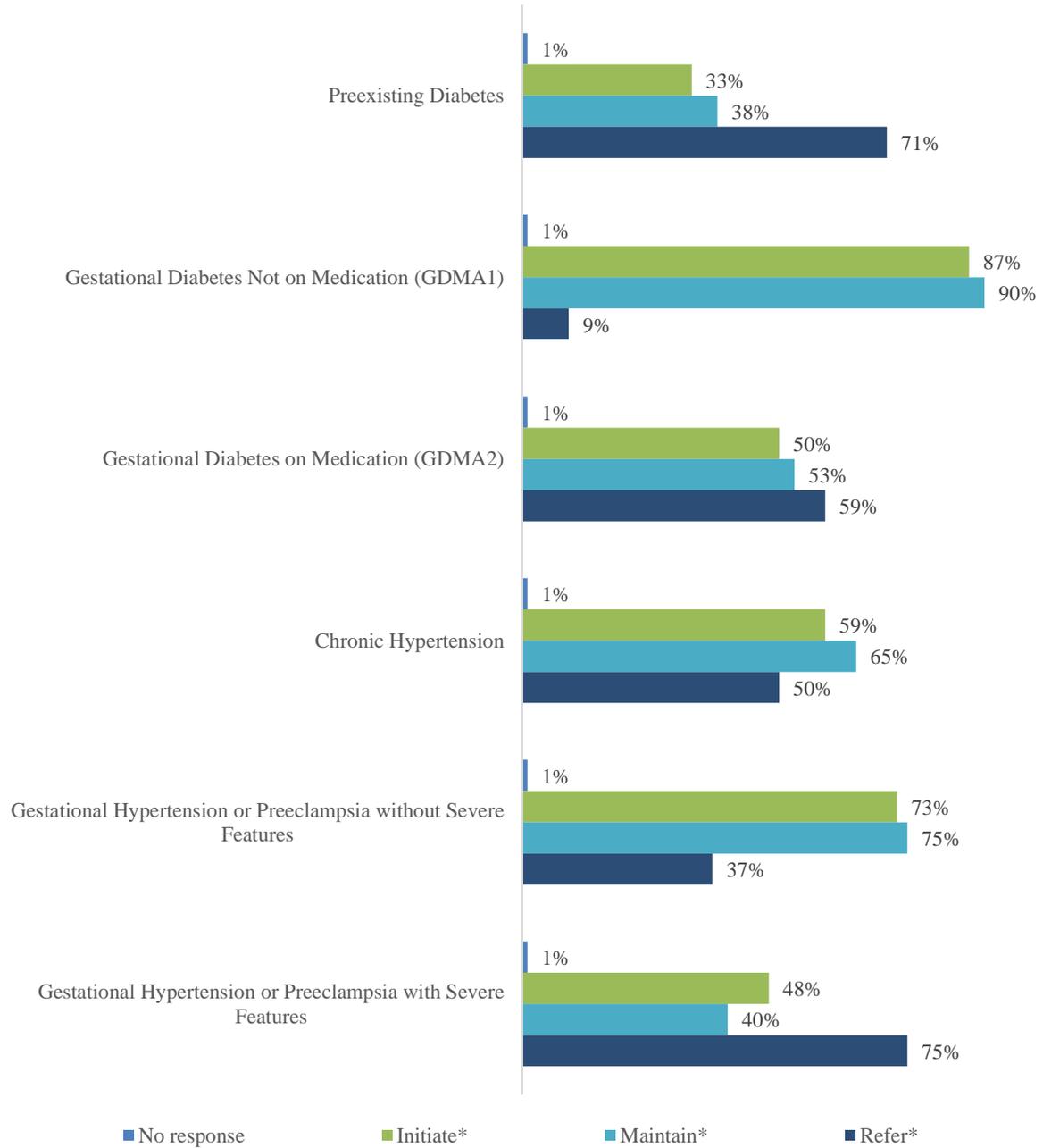
Table 5. Intrapartum Tasks: Individual intrapartum tasks with mean frequency, importance, and unweighted mean composite score, cont.

Task	Mean Frequency	Mean Importance	Mean Composite Score
Expectantly manages the third stage of labor (e.g., physiologic management of birth of placenta)	3.7	3.6	7.3
Estimates immediate postpartum blood loss (EBL)	4.4	3.7	8.1
Measures immediate postpartum blood loss (QBL)	4.0	3.7	7.7
Performs manual exploration of the uterus	2.7	3.6	6.2
Performs manual removal of the placenta	2.0	3.5	5.5
Evaluates etiology of postpartum hemorrhage, including assessing for uterine atony and vaginal/cervical lacerations	4.0	3.9	7.9
Controls third stage postpartum hemorrhage (e.g., fundal massage, initiation of breastfeeding, bimanual compression, pharmaceutical administration, and/or vaginal or cervical laceration repair)	3.9	3.9	7.8
Consults and/or refers for surgical management of severe postpartum hemorrhage	2.5	3.8	6.3
Orders blood transfusion when clinically indicated for severe postpartum hemorrhage	2.2	3.6	5.8
Inspects placenta and membranes to ascertain their completeness, to rule out retained fragments, and to check for abnormalities	4.8	3.9	8.6
Evaluates the need for pathological examination of placenta	4.3	3.6	8.0

Clinical Conditions.

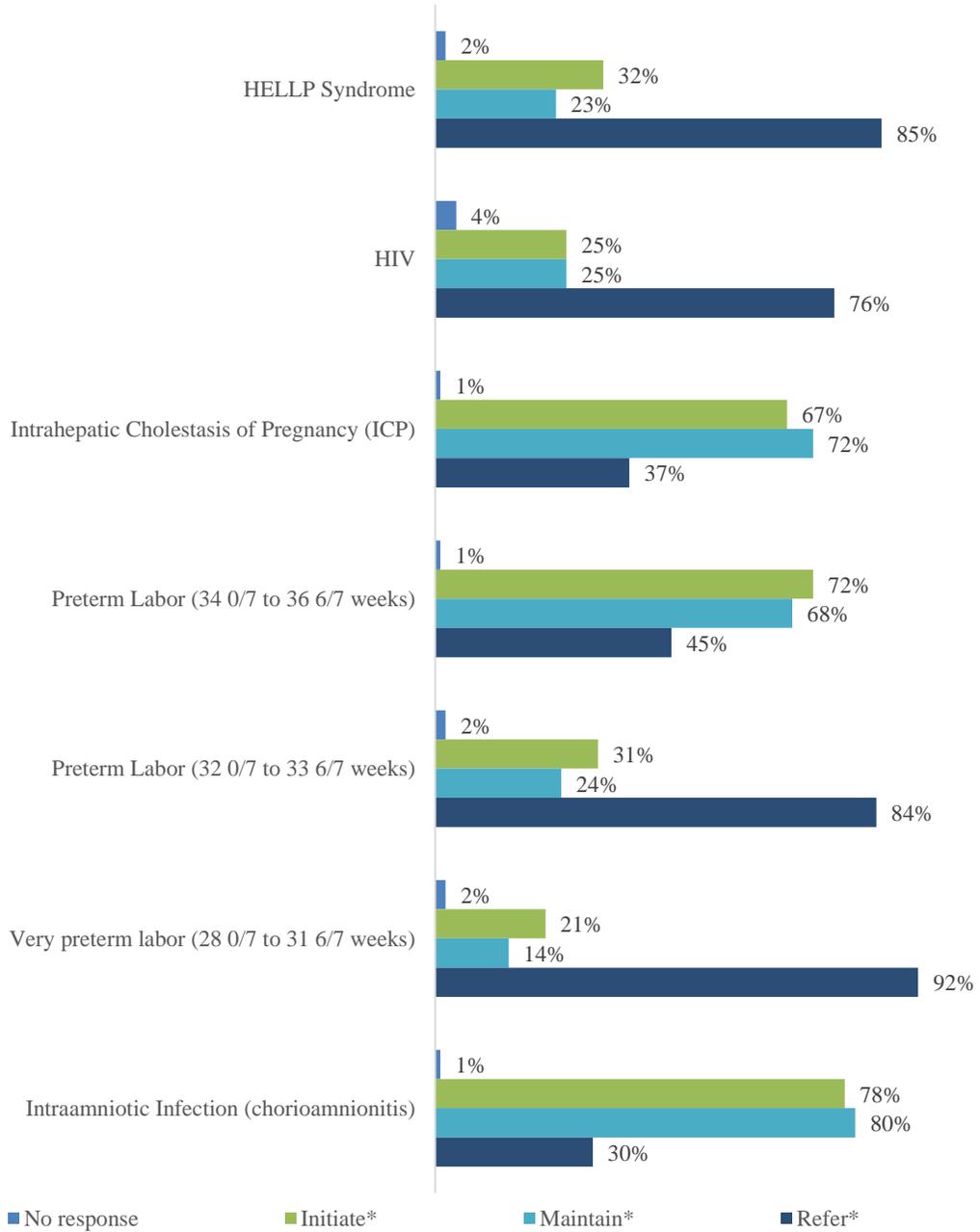
The figures below indicate whether the respondent screens, initiates treatment, maintains treatment, or refers for treatment of the common intrapartum conditions presented (respondents may have chosen more than one response) (Fig. 3). Information about whether a respondent initiates and/or maintains treatment independently or collaboratively is also included where applicable (Fig. 4).

Figure 3. Common intrapartum conditions including whether respondent screens, initiates, maintains, or refers for treatment.



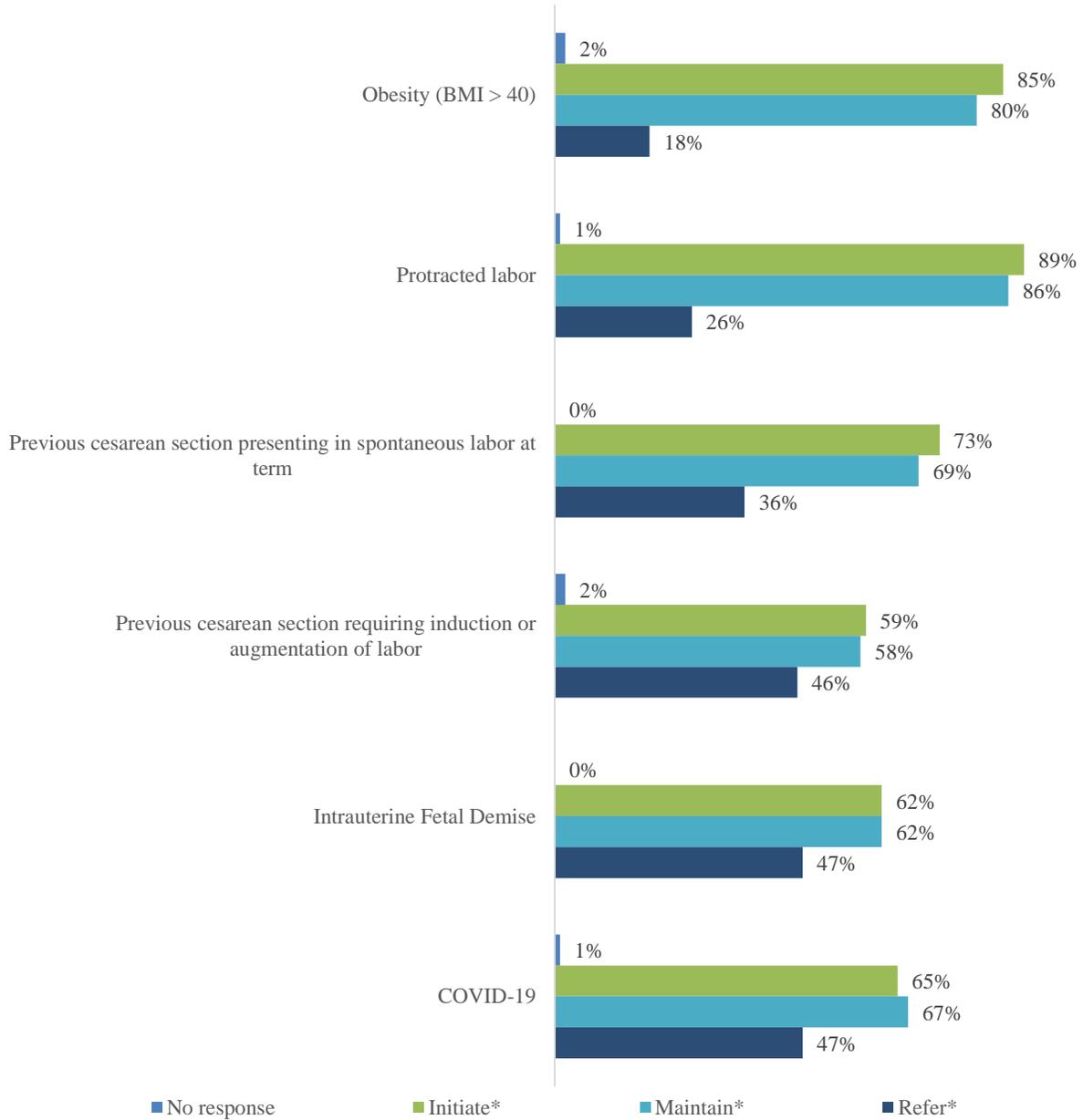
*Initiate management at onset of labor, maintain management throughout labor and birth, refer to physician for intrapartum management

Figure 3. Common intrapartum conditions including whether respondent screens, initiates, maintains, or refers for treatment, cont.



*Initiate management at onset of labor, maintain management throughout labor and birth, refer to physician for intrapartum management

Figure 3. Common intrapartum conditions including whether respondent screens, initiates, maintains, or refers for treatment, cont.



*Initiate management at onset of labor, maintain management throughout labor and birth, refer to physician for intrapartum management

Figure 4. Common intrapartum conditions: Independent or collaborative initiation and/or maintenance of treatment.

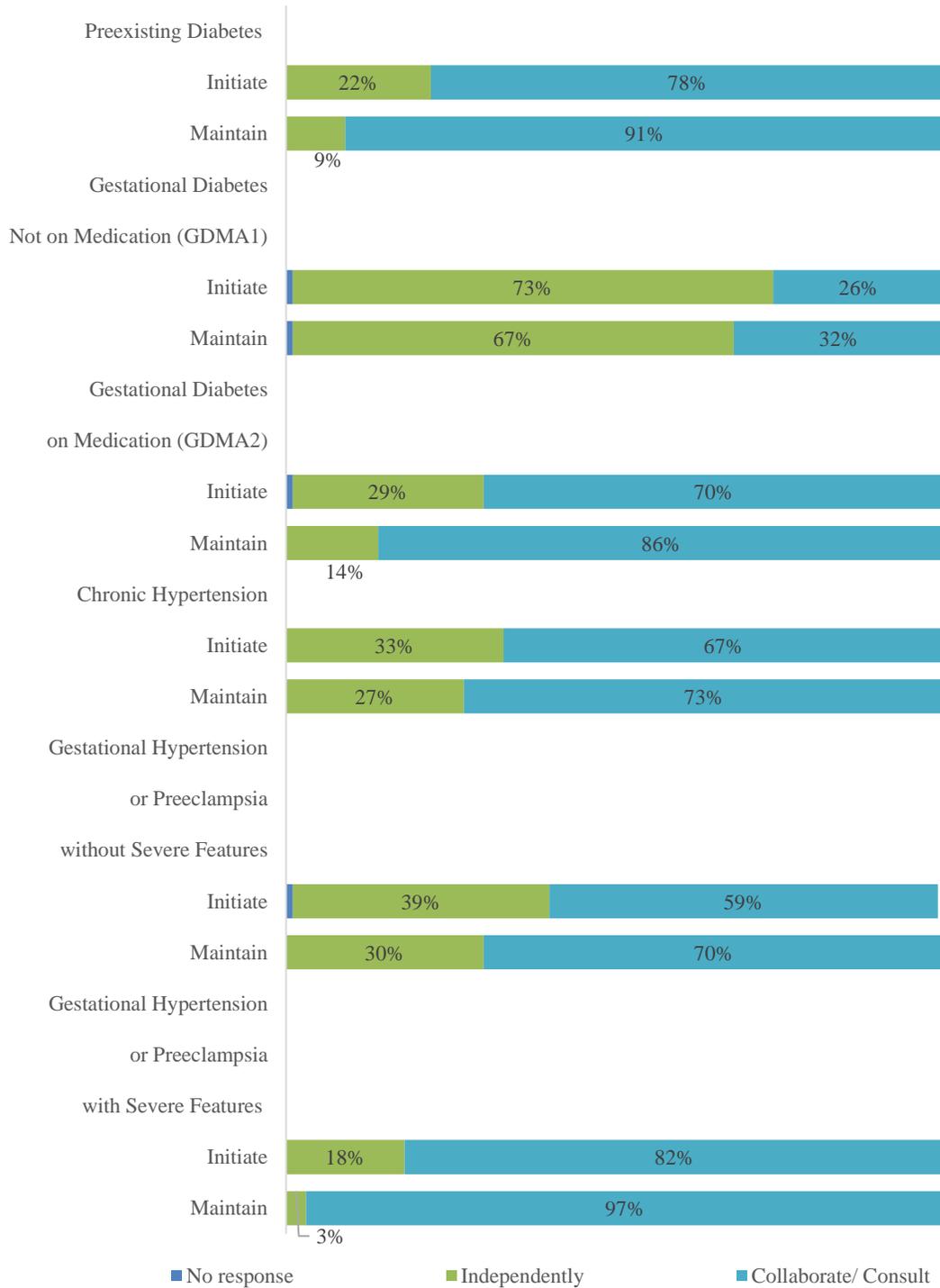


Figure 4. Common intrapartum conditions: Independent or collaborative initiation and/or maintenance of treatment, cont.

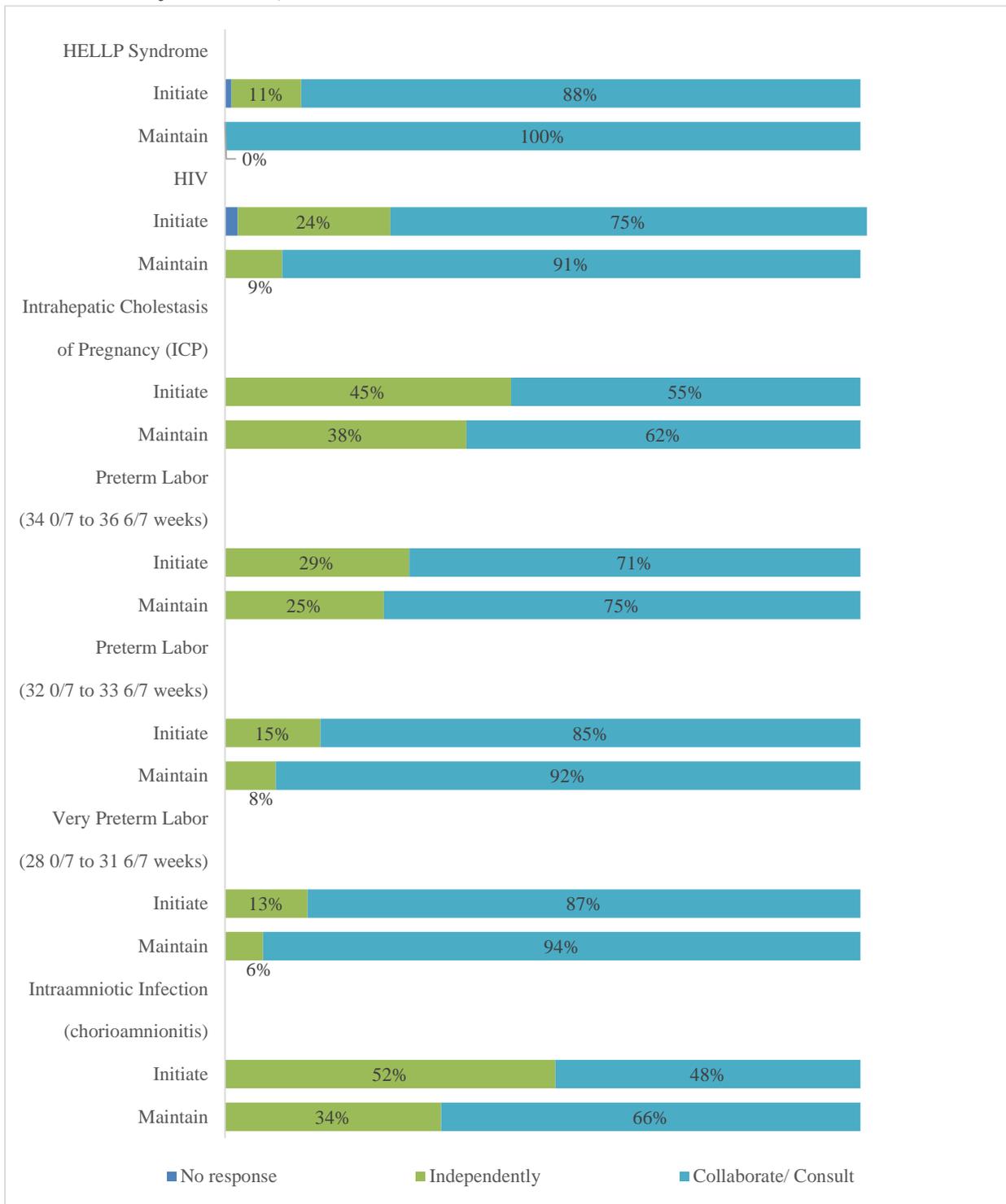
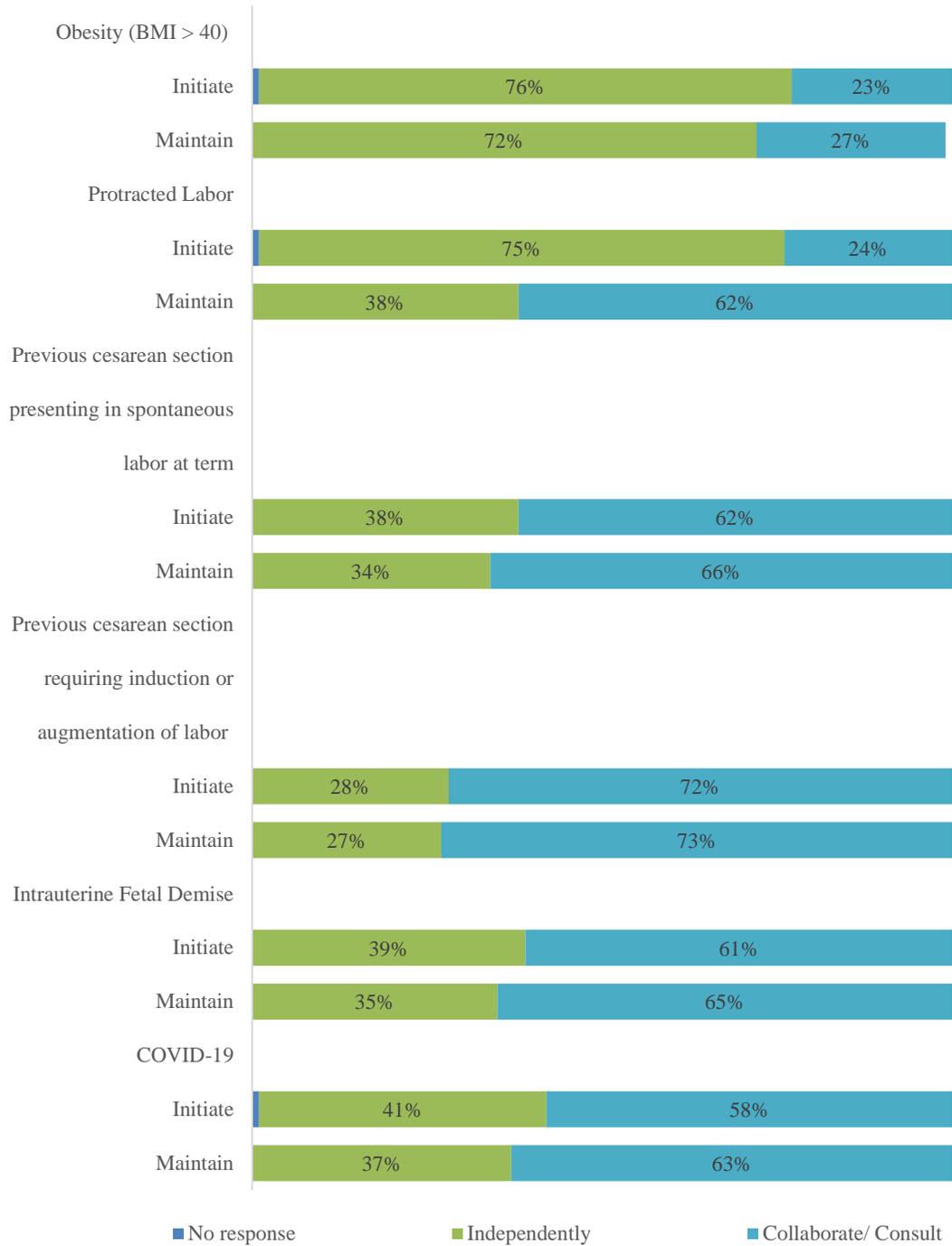


Figure 4. Common intrapartum conditions: Independent or collaborative initiation and/or maintenance of treatment, cont.



Intrapartum Comments.

Table 6 lists respondent comments after completing the intrapartum section of the survey.

Table 6. Intrapartum Comments: Respondent comments about the intrapartum section of the task analysis.

Tasks
1. The role of the CNM in the USA does not allow for the kinds of bedside care to the mother that other countries CNMs perform. Much of that is done by the OB-RN and there are clear demarcation lines when it comes to that. It is truly one of the most disappointing aspects of CNM care here.
2. I do think with the operative skills there should be an option for current or past practice. I have changed jobs since being certified and no longer perform certain skills regular, but I previously performed these skills regularly
3. To clarify about newborn care, in my practice we provide the initial newborn H&P but do not usually provide the remainder of primary newborn care through discharge from the hospital
4. Use of ultrasound in labor is only relevant if vaginal exam is non-reassuring for a vertex presentation. Administration of local anesthetic related to vaginal repair only
5. Some tasks are required of midwives at settings that are more rural with fewer resources- I'm fortunate to be in a location that has enough caregivers for both mom and baby so I do not have to be caring for both mom and baby simultaneously after delivery. Also, my hospital does not offer nitrous, or I would be offering it more.
6. #72: I have RARELY used a bulb syringe or suction catheter. My first intervention is postural drainage and it works almost every single time.
7. Performs median episiotomy when indicated.- only have done 1 in the past 3 years, know how but only if indicated. No routine.
8. #6. I only use u/s to determine fetal presentation if I am not doing a SVE on arrival (PROM)
9. Some of these questions could use a button of "planning on performing" or "gathering education necessary" - For example, I just obtained a job where I will be training to first assist, but I have yet to be proctored.
10. #22 only hydrotherapy, I do not perform any newborn care at the facility I attend deliveries. There is a NICU that is called to attend any birth with high risk, or newborns with difficulty.
11. Since I am OOH there are some things that I don't do as a CNM, however, in my past with 27 years of L&D, I did perform many IUPC's, amnioinfusions, etc.- don't know if that applies to the purpose of this survey though.
12. I work in a Birth Center so a lot of these interventions are not done there. I have 30 years of experience as an OB nurse and have done all of these interventions, and am well versed in their use.
13. many of these things I would do, but there hasn't been a need yet.
14. I have never cut an epis: but I didn't want to select I do not perform this task because I would if needed.
15. Nurses at our facility place FSEs so I only do it rarely.
16. I do not perform newborn care outside of the uterus
17. Faculty, I do not personally perform any of these

Table 6. Intrapartum Conditions: Respondent Comments About the Intrapartum Section of the Survey.

Tasks, cont.
18. Our hospital has an entirely separate team to provide care of infant, so I rarely do much aside from bulb suction (when indicated).
Conditions
1. The covid 19 question is a bit confusing. Prior or current infection at onset of labor/during labor?
2. I think it is import when discussing maintaining management for these conditions to designate the difference between management of controlled conditions vs worsening conditions
3. PPRM
4. COVID-19 depends on level of symptoms
5. Management of some of these conditions is induction, it's not a separate task.
6. Would be nice to have the option to choose both independent and co-manage
7. Severity determines referral. I feel like I clicked on all of the options due to lack of specificity of the question in regards to severity.
8. I work in a group where I have physician back up at all times when managing patient care if I need it. I also notify my back up when I admit a patient, I then manage them but keep the physician informed of progress as indicated.
9. Can manage a VBAC2 from onset through birth at the birth center, depending on c/s op report. Must have had one successful VBAC in hospital prior.
10. our backing OBGYNs are always available. we update them at 7 am and 7 pm and on admission of patients... we manage many higher risk patients but have great collaboration and comanagement abilities... rarely do we transfer a patient.
11. chronic hypertension with meds vs. without meds. I manage without meds, but if they are on meds they are managed by MD team. IUFD at term vs. preterm. I manage term IUFD, not preterm. Symptomatic covid vs. asymptomatic. I only manage the latter.
12. Faculty, I do not personally perform any of these

Postpartum Care

Clinical Tasks.

The two tables below present a summary of respondents and clinical tasks relating to the postpartum period (Table 7) and the individual frequency, importance, and unweighted mean composite scores for each postpartum clinical task (Table 8).

Table 7. Postpartum Tasks: Summary of respondents and postpartum tasks with mean and range of frequency, importance, and unweighted mean composite scores.

Number of tasks	<i>n</i> = 19
Number of respondents	<i>n</i> = 260
Number of respondents who provide this care	<i>n</i> = 359 (93.7%)
Where most respondents provide this care	Hospital (79.2%)
Frequency scores	Range = 3.5 Mean (SD) = 3.9 (0.9)
Importance scores	Range = 0.9 Mean (SD) = 3.6 (0.3)
Unweighted mean composite scores	Range = 4.4 Mean (SD) = 7.4 (1.1)

Table 8. Postpartum Tasks: Individual postpartum tasks with mean frequency, importance, and unweighted mean composite score.

Task	Mean Frequency	Mean Importance	Mean Composite Score
Evaluates the woman for physical adaptation to the postpartum period	4.9	3.8	8.7
Evaluates for psychosocial adaptation to the postpartum period	4.6	3.8	8.5
Performs postpartum physical examination in the inpatient setting	4.3	3.8	8.0
Assesses for postanesthesia complications or side effects, such as hypotension and spinal headache, and manages, consults, or refers	3.4	3.4	6.8
Evaluates for parental-newborn attachment	4.2	3.7	7.9
Counsels about and screens for immediate postpartum contraception (e.g., post-placental IUD placement)	2.9	3.3	6.2
Places post-placental IUDs	1.4	2.9	4.3
Evaluates for and manages common postpartum discomforts (e.g., postpartum pain, perineal discomfort, breast engorgement, hemorrhoids, excessive perspiration)	4.6	3.8	8.4
Provides information about breast anatomy and physiology, maintenance of milk supply, and care of breasts during lactation (e.g., sore nipples, engorgement)	4.5	3.8	8.3
Identifies difficulties related to lactation and refers or provides lactation consultation as indicated	4.3	3.8	8.1

Table 8. Postpartum Tasks: Individual postpartum tasks with mean frequency, importance, and unweighted mean composite score, cont.

Task	Mean Frequency	Mean Importance	Mean Composite Score
Screens for postpartum mood and anxiety disorders with a standardized instrument	4.5	3.8	8.3
Provides in-patient post-cesarean care	2.9	3.3	6.2
Provides post-cesarean care after hospital discharge	3.6	3.5	7.0
Initiates postpartum Deep Vein Thrombosis (DVT) Prophylaxis when indicated	2.5	3.2	5.8
Counsels about and orders maternal immunizations in the postpartum period	4.0	3.5	7.6
Counsels about the need for mother and/or infant to transition to ongoing health care when indicated	3.9	3.5	7.4
Counsels about postpartum sexuality and family planning	4.6	3.8	8.3
Counsels about family dynamics	4.0	3.5	7.5
Evaluates social support systems and refers to resources when indicated	4.3	3.7	8.1

Clinical Conditions.

The figures below indicate whether the respondent screens, initiates treatment, maintains treatment, or refers for treatment of the common postpartum conditions presented (respondents may have chosen more than one response) (Fig. 5). Information about whether a respondent initiates and/or maintains treatment independently or collaboratively is also included where applicable (Fig. 6).

Figure 5. Common postpartum conditions including whether respondent screens, initiates, maintains, or refers for treatment.

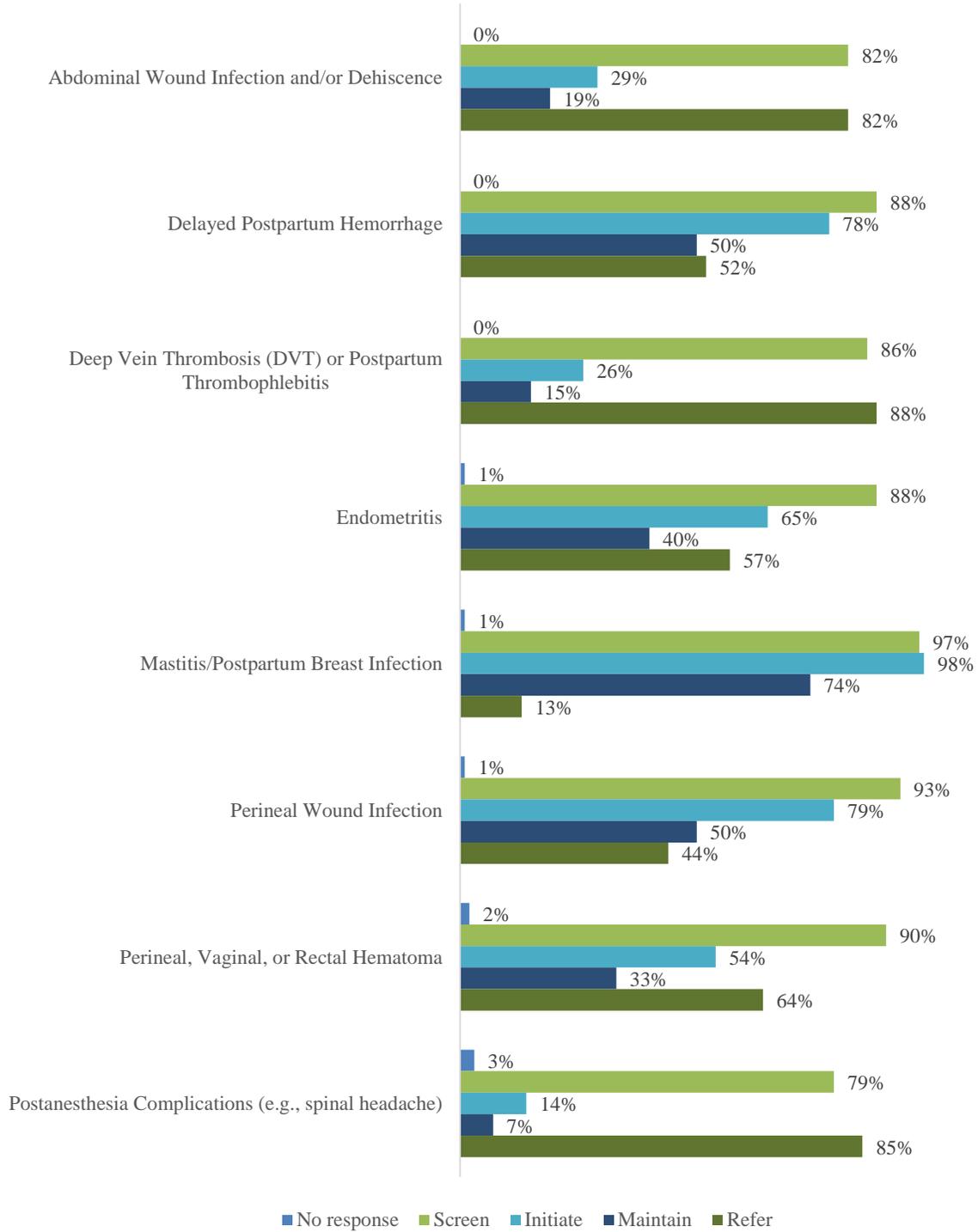


Figure 5. Common postpartum conditions including whether respondent screens, initiates, maintains, or refers for treatment, cont.

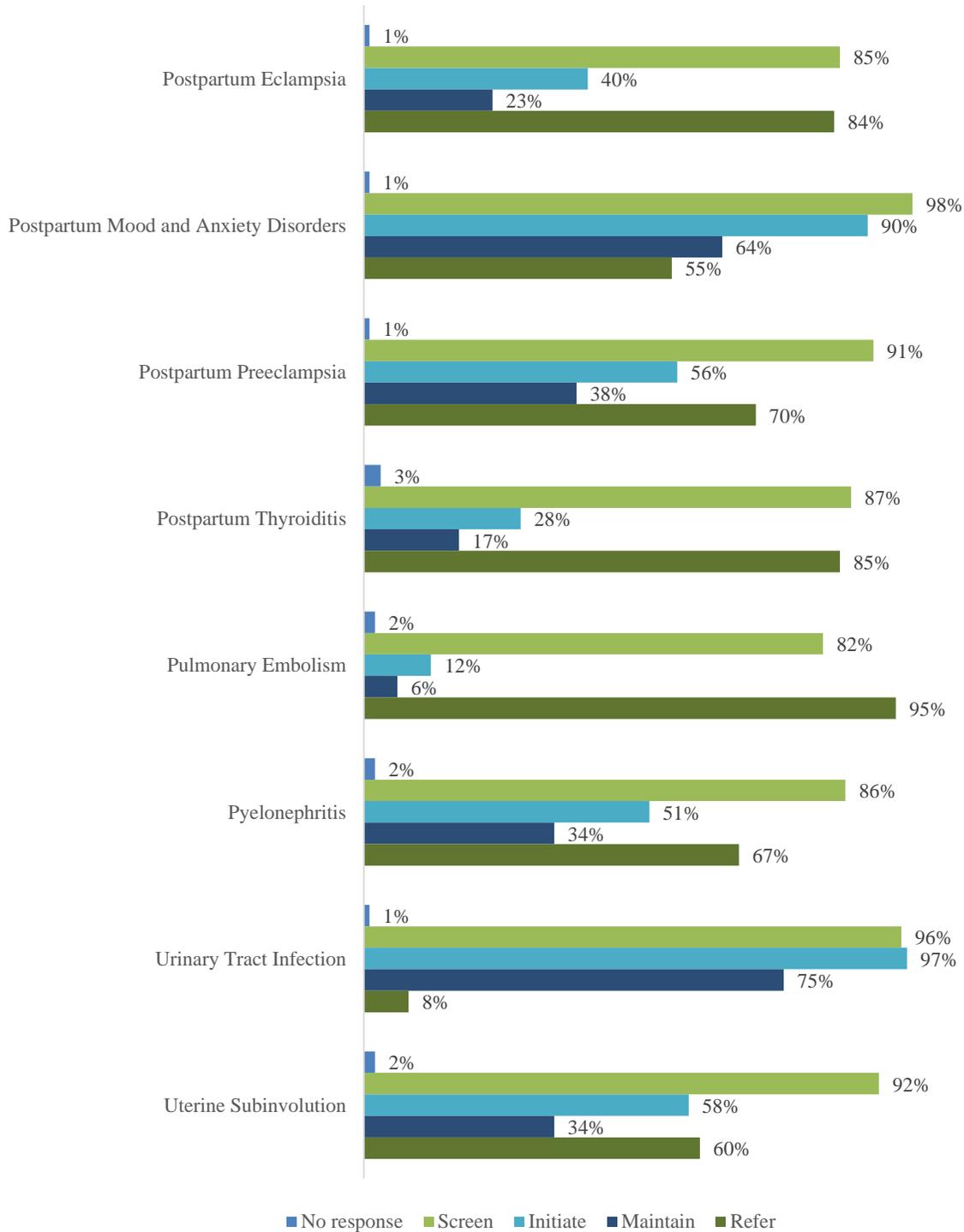


Figure 6. Common postpartum conditions: Independent or collaborative initiation and/or maintenance of treatment.

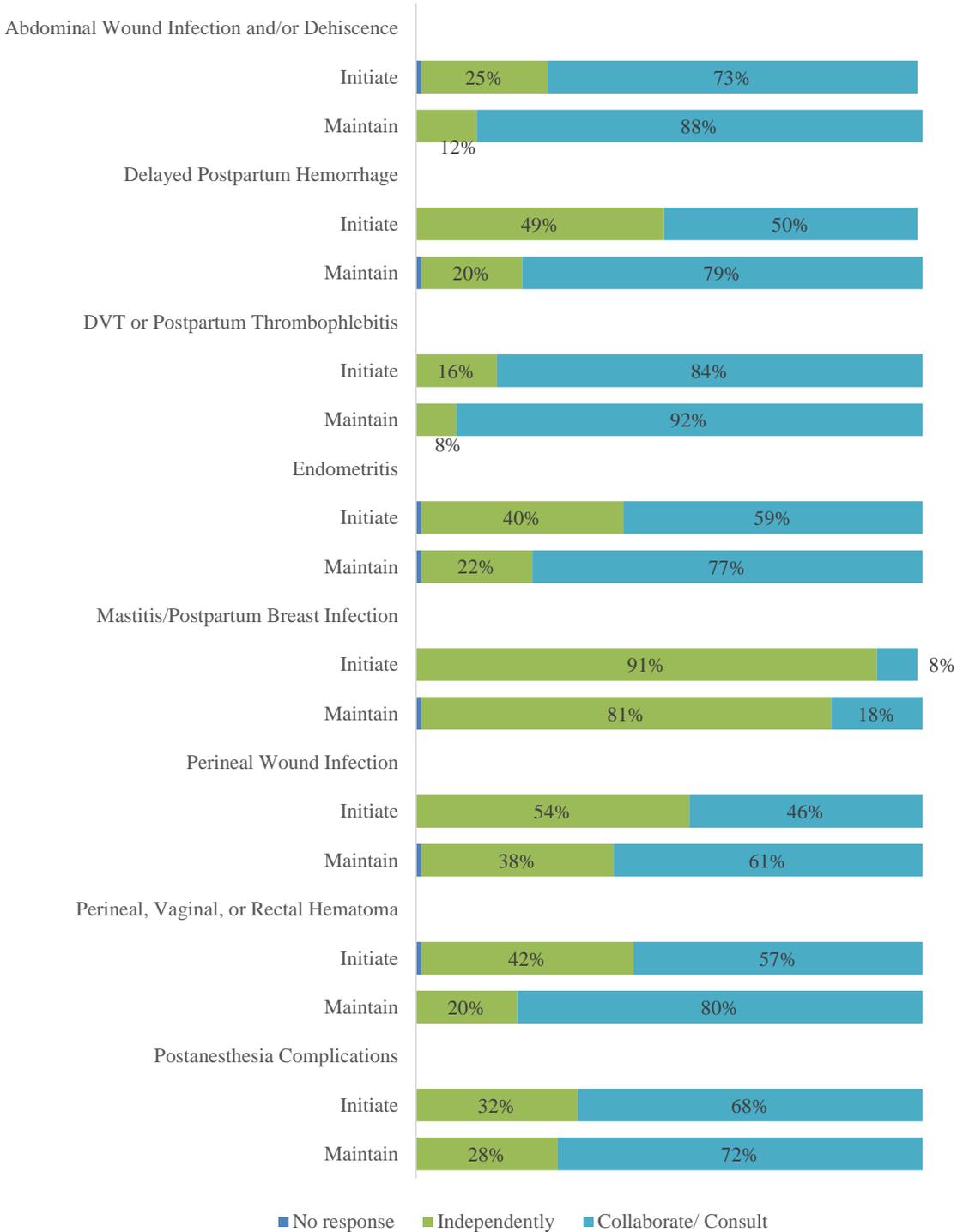
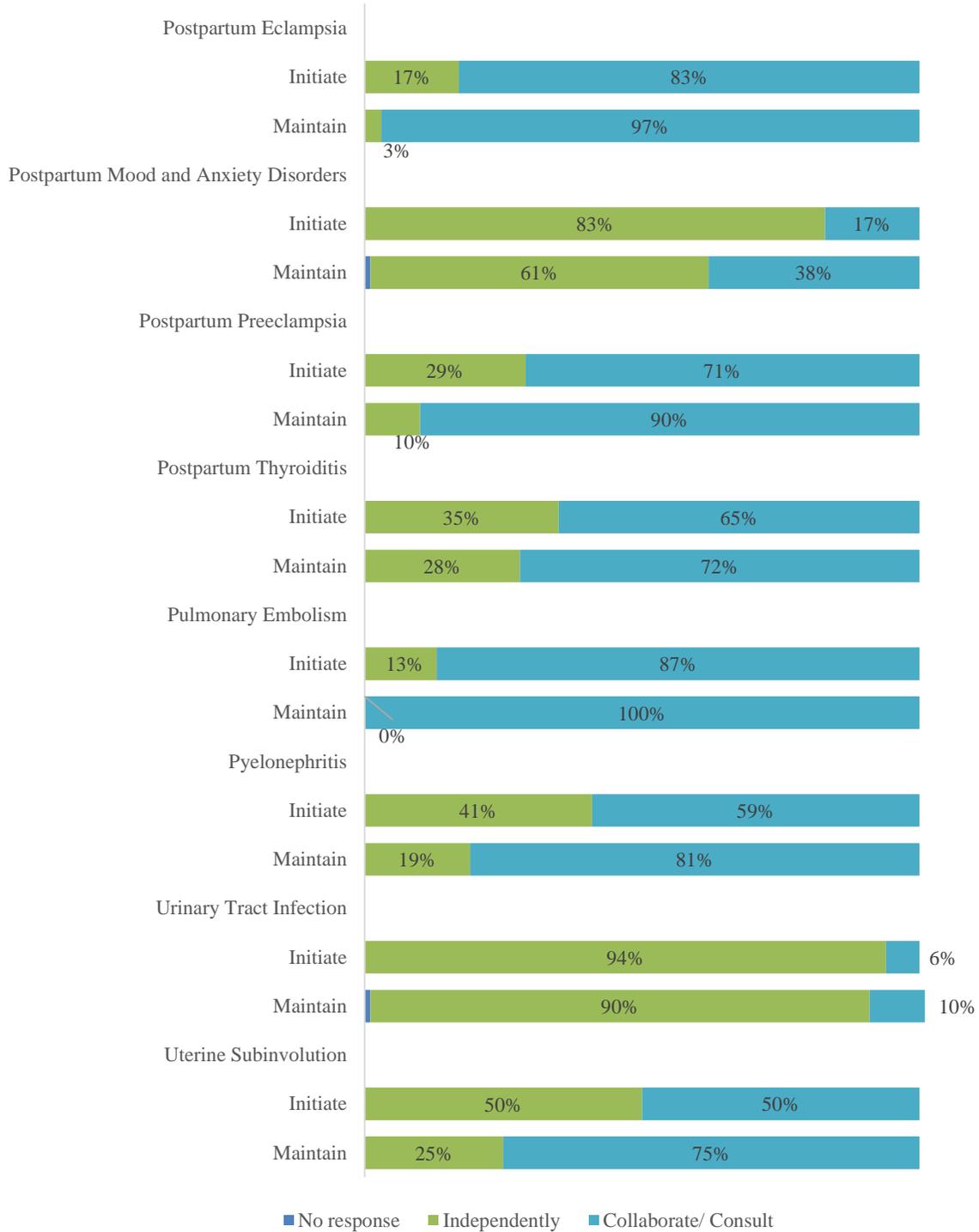


Figure 6. Common postpartum conditions: Independent or collaborative initiation and/or maintenance of treatment, cont.



Postpartum Comments.

Table 9 lists comments provided by respondents after completing the postpartum section of the task analysis.

Table 9. *Postpartum Comments: Respondent comments about the postpartum section of the task analysis.*

Tasks
1. I do not help w/ breastfeeding we have in patient lactation counselors
2. Question 3: written as "impatient"
3. I am also an FNP.
4. Faculty, I do not personally perform any of these
5. Our setup is that the infant has a completely separate team dedicated to them
Conditions
1. issues like PE are screen and send to ER. I don't consider that management or need to independently manage, other than knowing when to call it and send them in for evaluation.
2. #8: My clients do not receive anesthesia so this is N/A to me
3. As with anything, our group starts and maintains care as long as thing continue to get better. If things are staying the same and or not improving we consult and or refer.
4. Faculty, I personally do not personally perform any of these

Newborn Care

Clinical Tasks.

The two tables below present a summary of respondents and clinical tasks relating to newborn care (Table 10) and the individual frequency, importance, and unweighted mean composite scores for each newborn-related clinical task (Table 11).

Table 10. Newborn Tasks: Summary of respondents and newborn tasks with mean and range of frequency, importance, and unweighted mean composite scores.

Number of tasks	<i>n</i> = 23
Number of respondents	^a <i>n</i> = 260; ^b <i>n</i> = 272; ^c <i>n</i> = 312
Number of respondents who provide this care	<i>n</i> = 97 (25.3%)
Where most respondents provide this care	---
Frequency scores	Range = 3.7 Mean (SD) = 3.0 (1.2)
Importance scores	Range = 1.3 Mean (SD) = 3.3 (0.4)
Unweighted mean composite scores	Range = 4.8 Mean (SD) = 6.3 (1.5)

Table 11. Newborn Tasks: Individual newborn tasks with mean frequency, importance, and unweighted mean composite score.

Task	Mean Frequency	Mean Importance	Mean Composite Score
Collects cord blood	4.4	3.6	8.1
Obtains cord gases when necessary	3.3	3.4	6.7
Examines cord for umbilical vessels	4.8	3.7	8.4
Evaluates and facilitates the infant's transition to extrauterine life	3.9	3.6	7.5
Supports newborn thermoregulation	4.0	3.6	7.6
Observes and, if necessary, clears infant's breathing passages with bulb suction and/or suction catheter	3.3	3.5	6.8
Initiates neonatal resuscitation when needed	2.1	3.6	5.7
Assigns APGAR scores	2.3	3.3	5.6
Supports neonatal glucose regulation through initiation of breastfeeding, monitoring for signs of hypoglycemia, and initiating treatment as indicated	2.6	3.3	5.9
Assists with initiation of breastfeeding	3.8	3.6	7.4
Educates about breastfeeding	4.7	3.8	8.5
Educates about formula feeding	4.1	3.5	7.5
Promotes a healthy environment for maternal-infant interaction from birth to discharge from the birthing location	4.5	3.7	8.2
Performs complete newborn physical exam	1.9	3.0	4.8
Identifies abnormalities in the newborn exam and refers appropriately	1.8	3.0	4.9

Table 11. Newborn Tasks: Individual newborn tasks with mean frequency, importance, and unweighted mean composite score.

Task	Mean Frequency	Mean Importance	Mean Composite Score
Performs neonatal assessment to determine gestational age	1.7	2.8	4.5
Orders newborn genetic screening tests.	1.6	2.7	4.3
<i>Manages infant who requires phototherapy</i>	<i>1.1</i>	<i>2.5</i>	<i>3.7</i>
Provides patient-centered guidance and counseling regarding male circumcision ^c	3.6	3.2	6.7
Educates parent(s) about routine newborn care ^a	3.6	3.5	7.1
Provides primary care of the infant from birth to discharge from the birthing location ^b	1.9	2.9	4.9
Provides primary care of the infant from discharge from the birthing location through 28 days of life ^a	1.5	2.6	4.2

Clinical Conditions.

No newborn conditions were included in the survey.

Newborn Comments.

Comments regarding newborn care were integrated with comments in the intrapartum and postpartum survey sections.

Well Woman/Gynecological (GYN) Care

Clinical Tasks.

The two tables below present a summary of respondents and clinical tasks relating to well woman and gynecological care (Table 12) and the mean frequency, importance, and unweighted mean composite scores for each well woman/gynecological clinical task (Table 13). Many of these tasks apply to more than one practice domain, so they were presented in the survey section titled “General Midwifery Tasks”. All respondents were given the opportunity to contribute to the task importance score and all scores were included in the unweighted mean composite score for each item. Midwives who were practicing clinically were able to contribute to the frequency score and the importance score.

Table 12. Well Woman/Gynecological (GYN) Care Tasks: Summary of respondents and well woman/gynecological care tasks with mean and range of frequency, importance, and unweighted mean composite scores.

Number of Tasks	<i>n</i> = 49
Number of respondents	<i>n</i> = 383
Number of respondents who provide this care	<i>n</i> = 362 (94.5%)
Where most respondents provide this care	Outpatient clinic or office (85.6%)
Frequency scores	Range = 3.6 Mean (SD) = 3.4 (1.1)
Importance scores	Range = 1.7 Mean (SD) = 3.5 (0.4)
Mean composite scores	Range = 5.3 Mean (SD) = 6.9 (1.5)

Table 13. Well Woman/Gynecological Care Tasks: Individual well woman/gynecological care tasks with mean frequency, importance, and unweighted mean composite score.

Task	Mean Frequency	Mean Importance	Mean Composite Score
Performs a complete pelvic exam including bimanual and speculum exams	4.7	3.7	8.4
Evaluates for concerns related to sex drive and sexual satisfaction	4	3.5	7.4
Provides counseling for sexual concerns	4.1	3.6	7.7
Provides counseling and support following sexual assault	2.2	3.7	5.9
Asks about sexual orientation	4.2	3.5	7.6
Asks about gender identity	3.7	3.4	7.1
Provides care to non-binary individuals	2.5	3.4	5.9
Assesses for high-risk sexual behavior	4.3	3.7	8.0
Provides instruction and counseling regarding use of condoms, dental dams, etc. as methods to prevent Sexually Transmitted Infections (STIs)	4.4	3.8	8.2
Counsels about the importance of early recognition, screening, and treatment of sexually transmitted infections (STIs)	4.5	3.8	8.3

Table 13. Well Woman/Gynecological Care Tasks: Individual well woman/gynecological care tasks with mean frequency, importance, and unweighted mean composite score, cont.

Task	Mean Frequency	Mean Importance	Mean Composite Score
Assesses for and treats sexually transmitted infections (STIs) based on current guidelines	4.6	3.9	8.5
Provides expedited partner treatment for sexually transmitted infections (STIs)	3.2	3.7	6.9
Counsels about and recommends the use of non-prescription forms of contraception (e.g., condoms, contraceptive gel, film, foams, etc.)	4.5	3.7	8.2
Counsels about the use of Fertility Awareness Methods (e.g., Billings, rhythm, symptothermal and lactational amenorrhea)	4.2	3.6	7.8
Provides contraceptive services	4.6	3.9	8.5
Screens for indications and contraindications for various contraceptive methods with history, physical examination and laboratory data	4.5	3.9	8.4
Screens for indications for genetic carrier trait/hereditary cancer testing by personal and family history and orders appropriate laboratory testing as indicated	4.1	3.5	7.6
Provides anticipatory guidance about menarche, the menstrual cycle, and menopause	4.2	3.6	7.8
Evaluates abnormal uterine/vaginal bleeding	4.0	3.7	7.7
Counsels about normal physiological and emotional changes throughout the menstrual cycle	4.1	3.6	7.6
<i>Provides paracervical block in the outpatient setting</i>	1.1	2.2	3.3
Provides guidance and counseling for the prevention and recognition of toxic shock syndrome	2.2	2.9	5.1
Determines need to obtain Papanicolaou (pap/cervical cytology) test based on current guidelines	4.7	3.9	8.6
Obtains Papanicolaou (pap/cervical cytology) test	4.6	3.9	8.5
Refers for colposcopy when indicated	3.9	3.8	7.7
Assesses for common vaginal conditions using microscopy (e.g., candida, bacterial vaginosis)	3.7	3.5	7.2
Diagnoses vaginitis (e.g., candida, bacterial vaginosis)	4.5	3.7	8.3
Prescribes pharmaceuticals and/or alternative therapies to treat vaginitis	4.5	3.8	8.2
Treats condyloma using chemical methods and/or cryotherapy	1.9	2.9	4.8
Evaluates for vulvar disease	3.4	3.4	6.7
<i>Performs vulvar biopsy</i>	1.4	3.0	4.4

Table 13. Well Woman/Gynecological Care Tasks: Individual well woman/gynecological care tasks with mean frequency, importance, and unweighted mean composite score, cont.

Task	Mean Frequency	Mean Importance	Mean Composite Score
Performs clinical breast exam	4.4	3.6	8.0
Counsels about breast self-awareness	4.6	3.8	8.3
Refers for diagnostic mammogram and/or breast sonogram as indicated by clinical findings	3.9	3.7	7.7
Refers for pelvic floor physical therapy to address genitourinary and sexual concerns	4.0	3.7	7.6
Refers for pelvic/transvaginal ultrasound when indicated	4.2	3.7	7.8
Refers for sonohysterogram when indicated	2.3	3.0	5.3
Performs endometrial biopsy	1.7	3.1	4.7
<i>First assists with gynecological (GYN) surgery</i>	<i>1.1</i>	<i>2.3</i>	<i>3.4</i>
Refers for services to electively terminate pregnancy	2.7	3.5	6.2
Prescribes medication to electively terminate pregnancy	1.2	3.0	4.3
Assesses need for and facilitates socioemotional follow-up after termination of pregnancy	2.4	3.4	5.8
Evaluates for ectopic pregnancy (e.g., serial beta-hCG, pelvic ultrasound).	3.4	3.7	7.2
Expectantly manages or co-manages ectopic pregnancy	1.9	3.3	5.2
Medically manages or co-manages ectopic pregnancy (e.g., methotrexate)	1.6	3.2	4.8
Performs initial assessment for evaluation of infertility	2.9	3.3	6.3
Evaluates for signs and symptoms of perimenopause/menopause	3.5	3.5	7.0
Counsels about management of perimenopausal/menopausal signs and symptoms	3.5	3.5	7.0
Prescribes hormone therapy and/or alternative therapies for treatment of perimenopausal/menopausal symptoms	2.7	3.3	6.0

Clinical Conditions.

No conditions specific to Well Woman/Gynecological care were included in the survey.

Well Woman/Gynecological Care Comments.

Table 14 lists comments provided by respondents after completing the general midwifery care section of the task analysis survey where many of these items were located.

Table 14. Well Woman/Gynecological Care Comments: Respondent Comments About the General Midwifery Care Section of the Task Analysis.

Comments
1. I could perform endometrial biopsies, but have not had the opportunity to do so. I am only in the clinic once a week and work in the hospital the rest of the week.
2. I am indicating the importance within my practice areas. As there are many other providers who provide that service, sometimes I indicate that it is not important (ie: colposcopy). However, there are some instances in which I feel basic training for midwives should be done, for example: endometrial biopsy.
3. There are things I can do (like prescribe hormones for people of trans experience) that I haven't had the opportunity to do, but would. It's hard to capture with the scale provided.
4. I work in a rural, underserved area on the border of Mexico and Arizona. Utilization of mid level providers in areas like this is increasing and focus on ability to provide for the special needs of populations that live in rural and/or underserved areas is important. For example, I frequently see patients with mental health management needs. Many times it is undiagnosed and patients do not have access to psychiatric care. This was not something that had a lot of emphasis during school and I would like to see more education surrounding this for future midwives. Mental health disorders and emotional well being play a huge role in all aspects of healthcare, especially OBGYN.
5. Discussing work up and follow up for postmenopausal bleeding specifically Referral to reproductive endocrinology reasons and rationale
6. I think midwives should be experts on the physiologic hormones of the menstrual cycle and how to recognize how they impact women's overall health. More training in this area is needed for the prevention of chronic diseases.
7. I work alongside residents in the clinic setting and most tasks that involve advanced training or certification for me as a CNM get referred to them
8. If I don't perform something, there should be a "N/A" option under "Importance"
9. I perform counseling to encourage women to maintain their pregnancies and assess for services and resources needed to help make this a viable option to patients. Statement 61 does not allow for that nuance. Tasks that I do not perform but refer out to I selected a higher importance level to as I need to be knowledgeable about them but not necessarily competent
10. These tasks are heavily gyn focused and a lot is outside of core competencies and core privileges at many facilities; missing preconception care and routine OB care in the outpatient setting
11. I work in an infertility specialty practice mostly performing initial prenatal visits, procedures such as sonohysterograms and counseling/managing same-sex couples using donor sperm for IUI
12. I would love to participate in elective pregnancy termination but this not allowed at my place of employment.
13. At 60 I assist with C-sections only
14. I often order CBC, TSH, Vit D, and Vit B12. I do NOT order lipids/cholesterol as I do not act in a primary care role.
15. I work in a high-resource location with a team of MDs, sonographers, and PTs so I have easy access to and referrals for these things when I need it

Table 14. Well Woman/Gynecological Care Comments: Respondent Comments About the General Midwifery Care Section of the Task Analysis, cont.

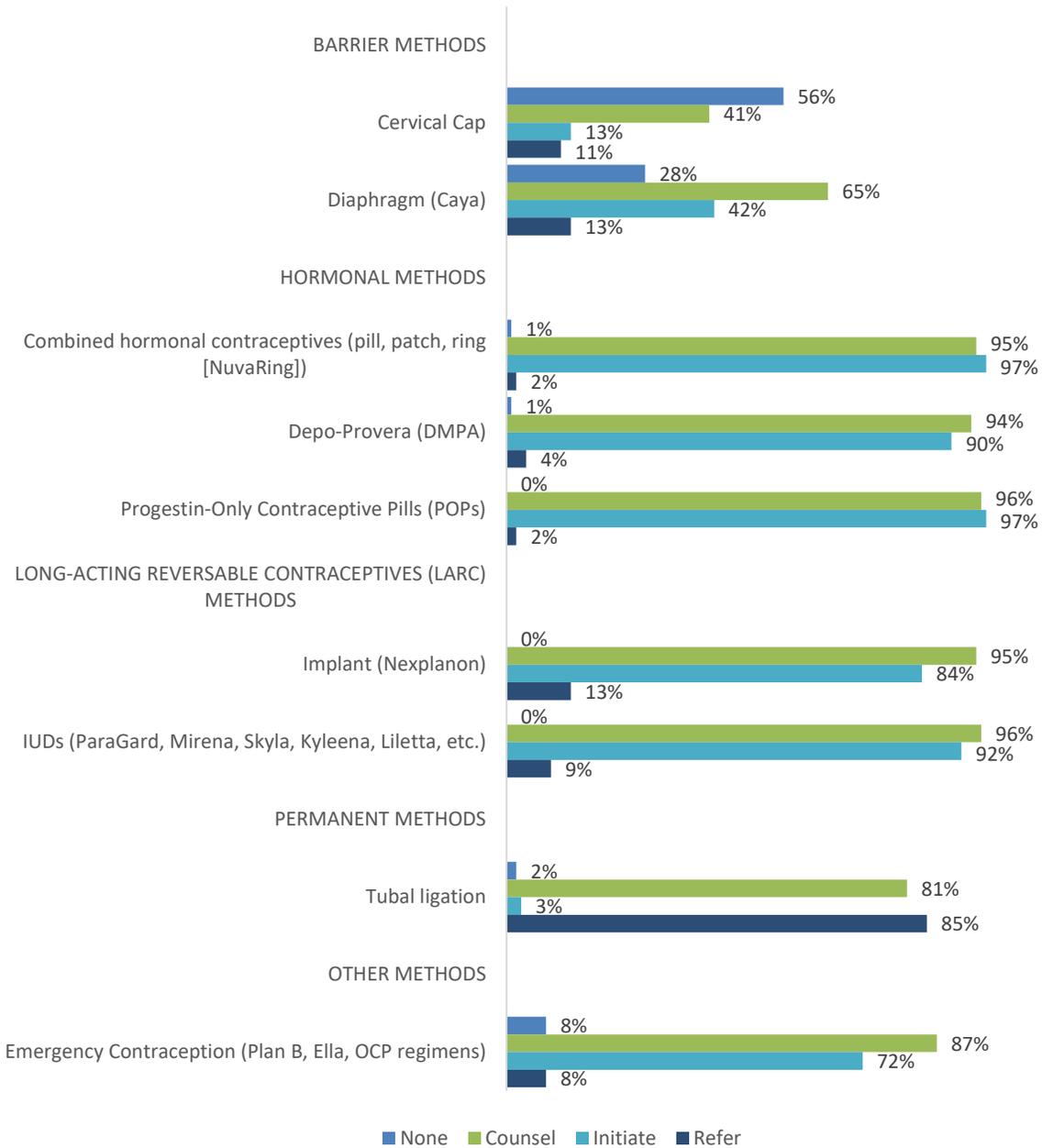
Comment
16. I think we should include counseling regarding surgery for gender affirming hormone surgeries and other non-pharmacological gender-affirming methods, such as voice therapy.
17. Due to working with 7 OBGYNs there are several tasks I do not do, I refer with in the practice. Example ectopic management, most primary care. I do limited primary care mostly anxiety and depression screening and management, as well as MAT treatment.
18. I do not perform some of the items as I work at a birth center and the demographics are such that I don't have the opportunity to perform some of them, but would be open to performing some of them
19. I work in a Birth Center so don't do some of the items due to client demographics
20. Some of these I believe are important but I am in a more restrictive state so I have to refer out for those tasks.
21. Some of the things I would do, there just hasn't been a need or request yet
22. Diagnosing and managing miscarriages. Very important.
23. Assess for history of trauma. Provide trauma-informed care.
24. School focused so much on AP IP and PP and really dropped the ball on menopause, sexual health, hormonal therapy etc yet this care is really needed. I answered the questions based on the job I just left (in Chicago) and the one I am starting in PP in Oregon.
25. Some things I'd do more, but my practice has been restricted to gyn only, no OB.
26. Provides counseling related to breastfeeding/troubleshooting breastfeeding
27. First assist for c-sections
28. I first assist for cesarean section only, not other gyn surgeries
29. Some of the task that I have not done are important but not for a midwife to do.
30. Faculty in midwifery education, I do not personally perform these
31. I am in the process of getting an updated intake form to better assess both sexual orientation and gender identity. I would also mention that I provide peasant fitting and care.
32. I only work inpatient postpartum so not many questions related to my scope of practice.

Contraceptive Services

Participants who indicated that they provided contraceptive services were asked to provide additional information about those services. Figure 7 shows the percentage of these respondents who reported providing counseling about, initiating treatment with, or referring for treatment for the contraceptive methods specified below. It is noted whether the individual does

not counsel, initiate, or refer for the contraceptive method (respondents were not limited to and may have chosen more than one response).

Figure 7. Contraceptive Services: Common contraceptive services including whether respondent counsels, initiates, or refers for the method.



Contraceptive Services Comments.

Table 15 lists comments provided by respondents after completing the Contraceptive Services section of the task analysis.

Table 15. Contraceptive Services Comments: Respondent Comments About the Contraceptive Services Section of the Task Analysis.

1. My client population generally practices NFP. Education provided but most prefer this method.
2. I also counsel and initiate re: spermicides and vaginal pH modulation gels
3. Tubal Ligation is always going to be a referral? I'm not aware of anywhere that CNM scope of practice include performing a BTL. Spermicide is not included as an individual item (not sure if it is implied with the Caya/cervical cap methods but definitely warrants education so folks don't forget it is to be paired with these options, and also has its own side effects to review & counsel folks on). I also counsel and refer for vasectomies as a method of contraception; that is not listed here. This comes up a lot more often for me than either of the Barrier Methods.
4. Discussion of spermicides, vaginal gels/ lactic acid gels for contraception
5. The risks of hormonal birth control should be better communicated to women so they have full informed consent. Especially counseling women on long-term hormonal birth control (5-10 years) of the risks of infertility, bone health, and mood changes.
6. new rx - phexxi
7. Correct condom usage; Natural Family Planning
8. Natural family planning counseling is a valid contraception method as is lactational amenorrhea
9. Natural family planning and other barrier methods (condoms) and appropriate use are also frequently discussed As is lactational amenorrhea.
10. we should discuss counseling for vasectomy. also, phexxi should now be included.
11. PHEXXI
12. phexxi should be included
13. I answered "somewhat important" to several items just because there is not an identified need for them with our clientele, and so haven't been used by myself in my 6 months of practice. These would be "very important" if I had a client that needed them. I guess I'm not sure if you are asking for "significance" versus "how important it is to me that this is available"
14. On demand use of new contraceptives such as Phexxi
15. Fertility awareness and male contraception (condoms, vasectomy) are two options missing from this list that I frequently counsel patients on.
16. Fertility awareness-based methods such as Billings, Sympto-thermal, Marquette

Table 15. Contraceptive Services Comments: Respondent Comments About the Contraceptive Services Section of the Task Analysis.

17. I am a midwife at a catholic facility and am currently only doing OB-related care; therefore I primarily can only counsel r/t DUB/AUB at the postpartum visit if cycles have resumed.
18. natural methods that help them understand their own menstrual cycle and fertile periods. spinnbarkeit, apps to track cycles, calendars, basal temperature, and benefits of abstinence
19. Phexxi

Primary Care

Clinical Tasks.

Clinical tasks relating to primary care are those non-gynecological tasks performed while providing care for non-pregnant people with disorders or conditions falling within the realm of primary care that are not included in other sections of the task analysis (King, 2019). Many of these items were included in the “General Midwifery Tasks” section. The two tables below present a summary of respondents and clinical tasks relating to primary care (Table 16) and the individual frequency, importance, and unweighted mean composite scores for each primary care task (Table 17).

Table 16. Summary of respondents and primary care tasks with mean and range of frequency, importance, and unweighted mean composite scores.

Number of tasks	<i>n</i> = 12
Number of respondents	<i>n</i> = 383
Number of respondents who provide this care	<i>n</i> = 217 (56.7%)
Where most respondents provide this care	Outpatient clinic or office (85.6%)
Frequency scores	Range = 3.0 Mean (SD) = 4.1 (1.1)
Importance scores	Range = 1.3 Mean (SD) = 3.6 (0.4)
Unweighted mean composite scores	Range = 4.1 Mean (SD) = 7.7 (1.4)

Table 17. Primary Care Tasks: Individual primary care tasks with mean frequency, importance, and unweighted mean composite score.

Task	Mean Frequency	Mean Importance	Mean Composite Score
Applies concepts of informed consent, informed refusal, and shared decision-making in patient encounters	5.0	4.0	8.9
Takes a comprehensive health history	4.9	3.9	8.8
Performs a head-to-toe physical exam	4.6	3.6	8.2
Creates a management plan based on subjective and objective data (e.g., ordering diagnostic imaging and lab work and initiating treatment as indicated)	5.0	3.9	8.9
Orders immunizations based on history, age, and current recommendations	4.5	3.6	8.0
Orders preventative health screening tests as appropriate (e.g., mammography, DEXA scan, colonoscopy)	4.3	3.6	7.9
Orders and interprets standard lab tests (e.g., thyroid function, lipid screening, blood glucose control, CBC, etc.)	4.9	3.8	8.7
Screens and refers for risk of domestic violence or abuse	4.5	3.8	8.3
Screens and counsels regarding substance use and refers as appropriate (e.g., tobacco/nicotine, alcohol, marijuana, prescription and non-prescription substances)	4.4	3.7	8.0
Prescribes medication for smoking cessation	2.0	3.1	5.1
Screens and counsels about exposure to environmental or work hazards such as toxic chemicals or radiation	3.4	3.2	6.7
<i>Sutures minor wounds (not including perineal/vaginal/vulvar lacerations)</i>	<i>2.1</i>	<i>2.7</i>	<i>4.8</i>

Clinical Conditions.

The task analysis asked participants about 22 common primary care conditions in addition to the itemized primary care tasks. The conditions were broken down into 10 chronic conditions, 5 acute conditions, and 7 mental health conditions. The figures below indicate whether the respondent screens, initiates treatment, maintains treatment, or refers for treatment of the common chronic, acute, and mental health conditions presented (respondents may have chosen more than one response) (Figs. 8, 10, 12). Information about whether a respondent initiates and/or maintains treatment independently or collaboratively is also included where applicable (Fig. 9, 11, 13).

Figure 8. Common chronic conditions including whether respondent screens, initiates, maintains, or refers for treatment

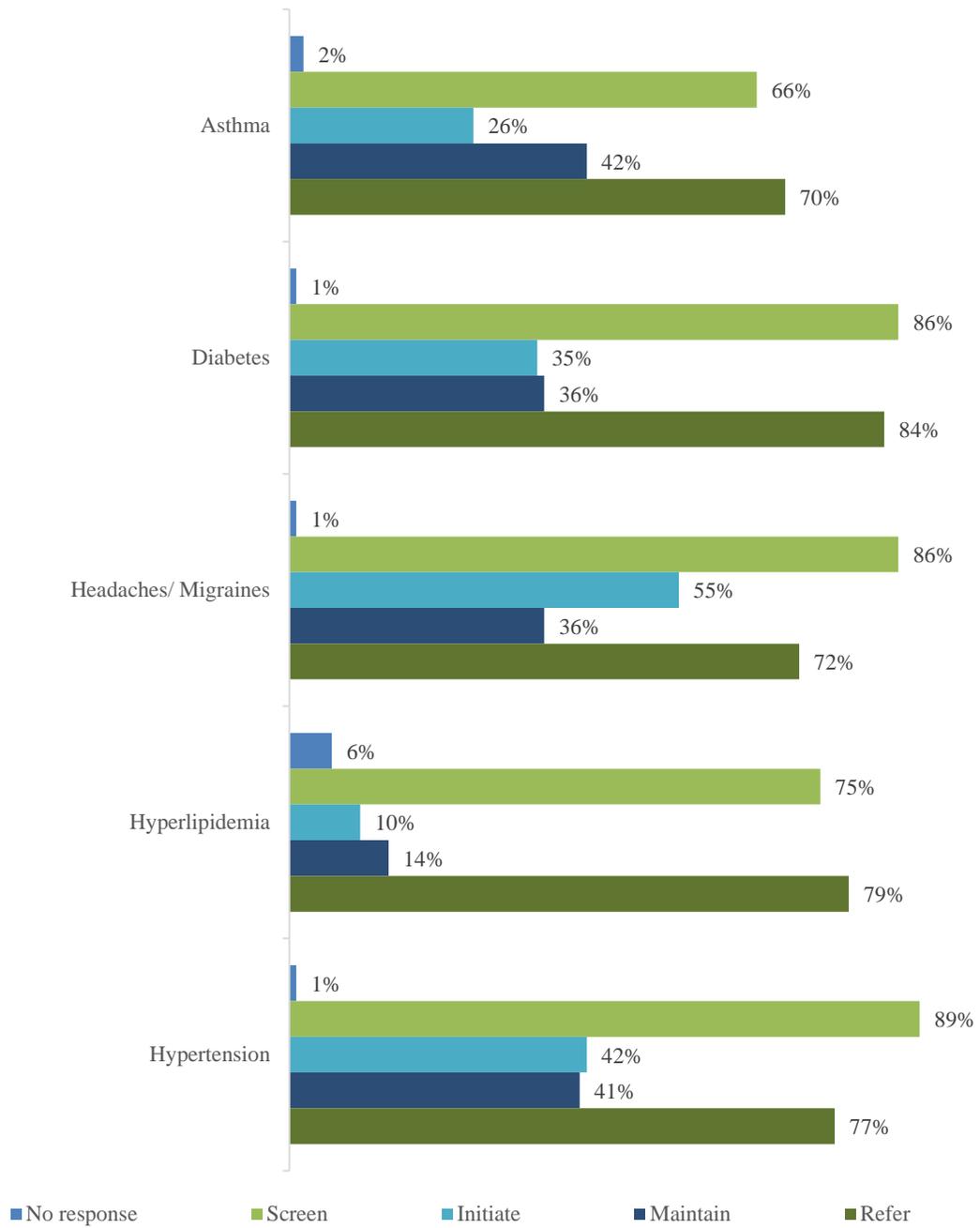


Figure 8. Common chronic conditions including whether respondent screens, initiates, maintains, or refers for treatment, cont.

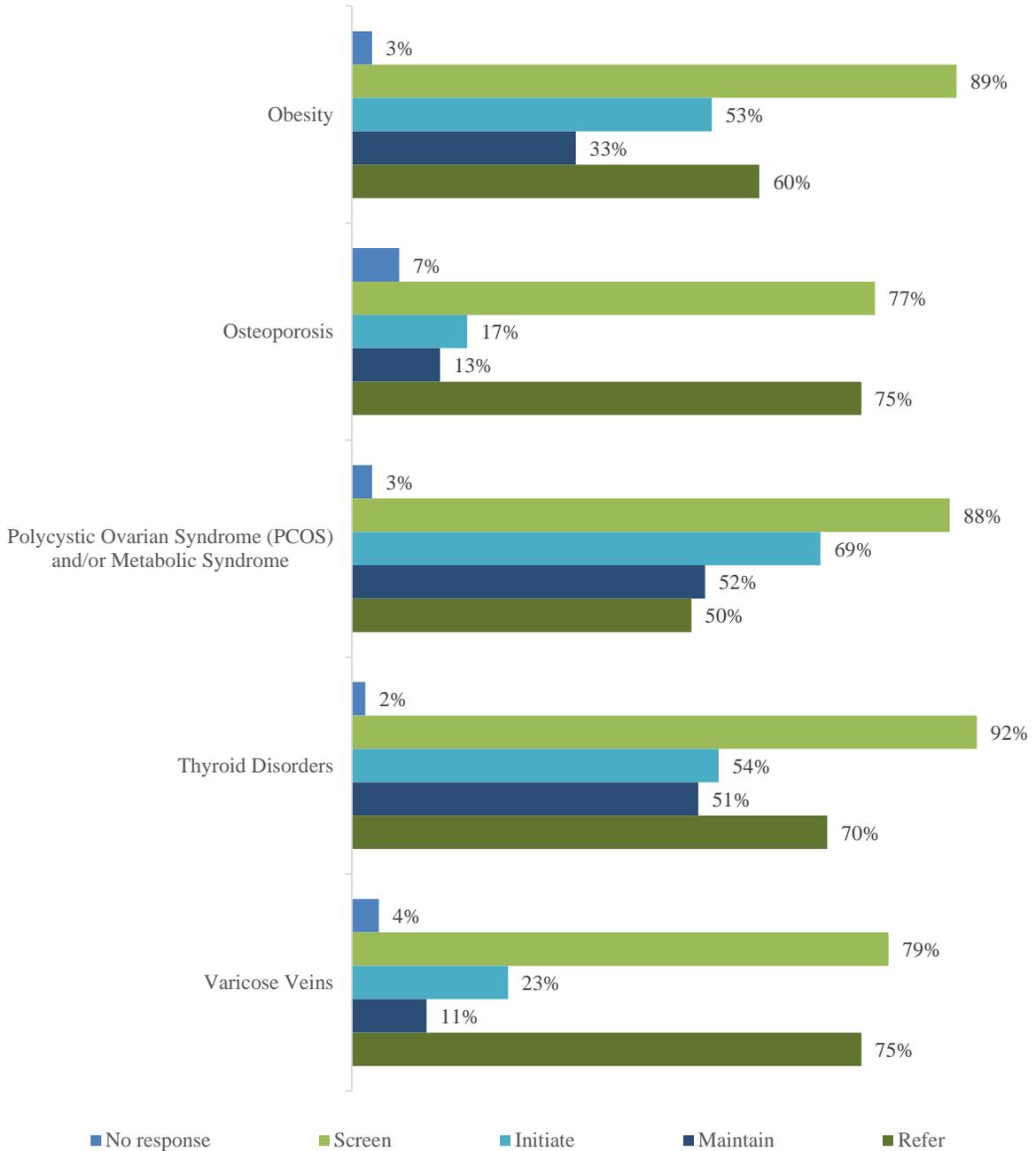


Figure 9. Common chronic conditions: Independent or collaborative initiation and/or maintenance of treatment.

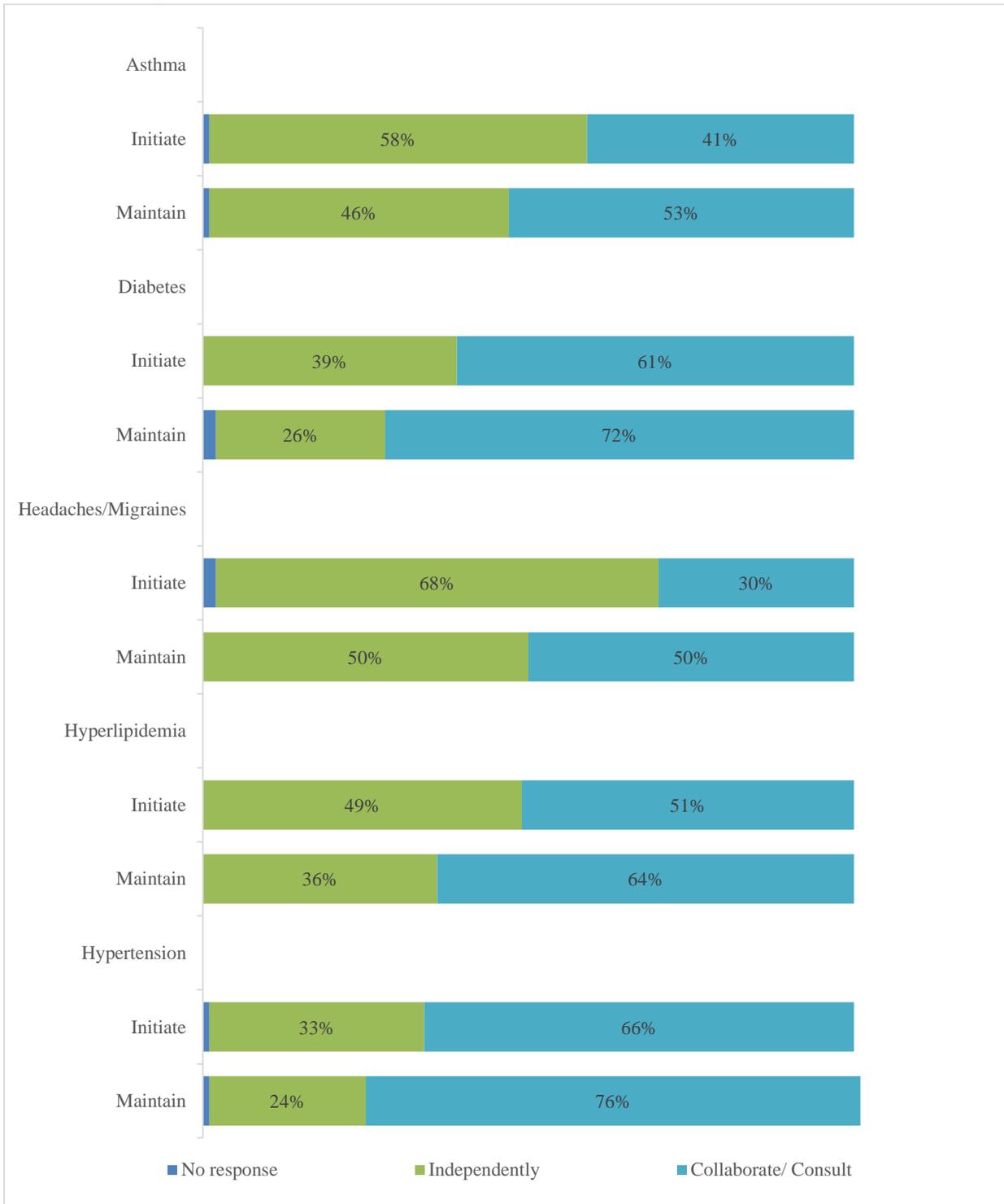


Figure 9. Common chronic conditions: Independent or collaborative initiation and/or maintenance of treatment, cont.

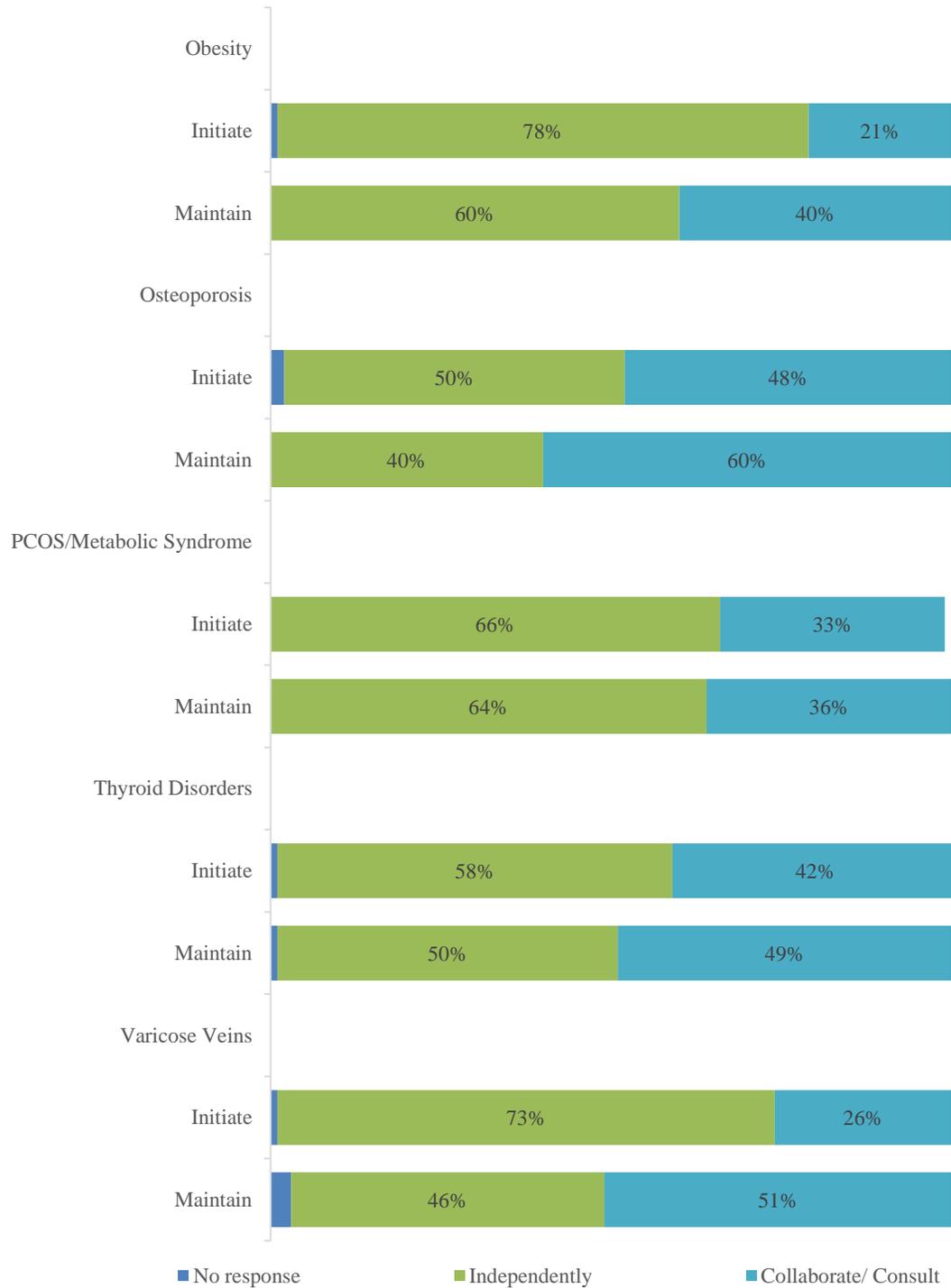


Figure 10. Common acute conditions including whether respondent screens, initiates, maintains, or refers for treatment.

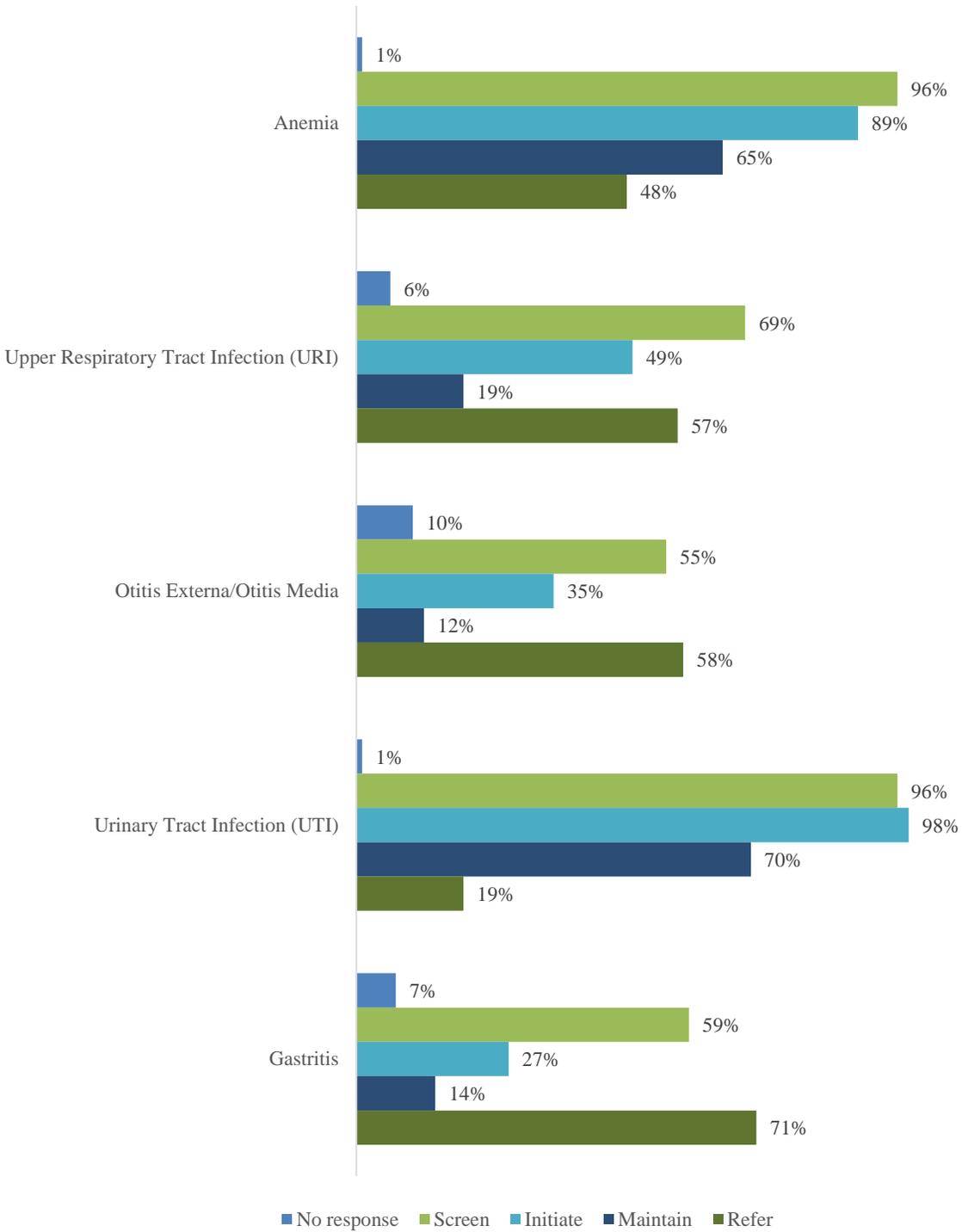


Figure 11. Common acute conditions: Independent or collaborative initiation and/or maintenance of treatment.

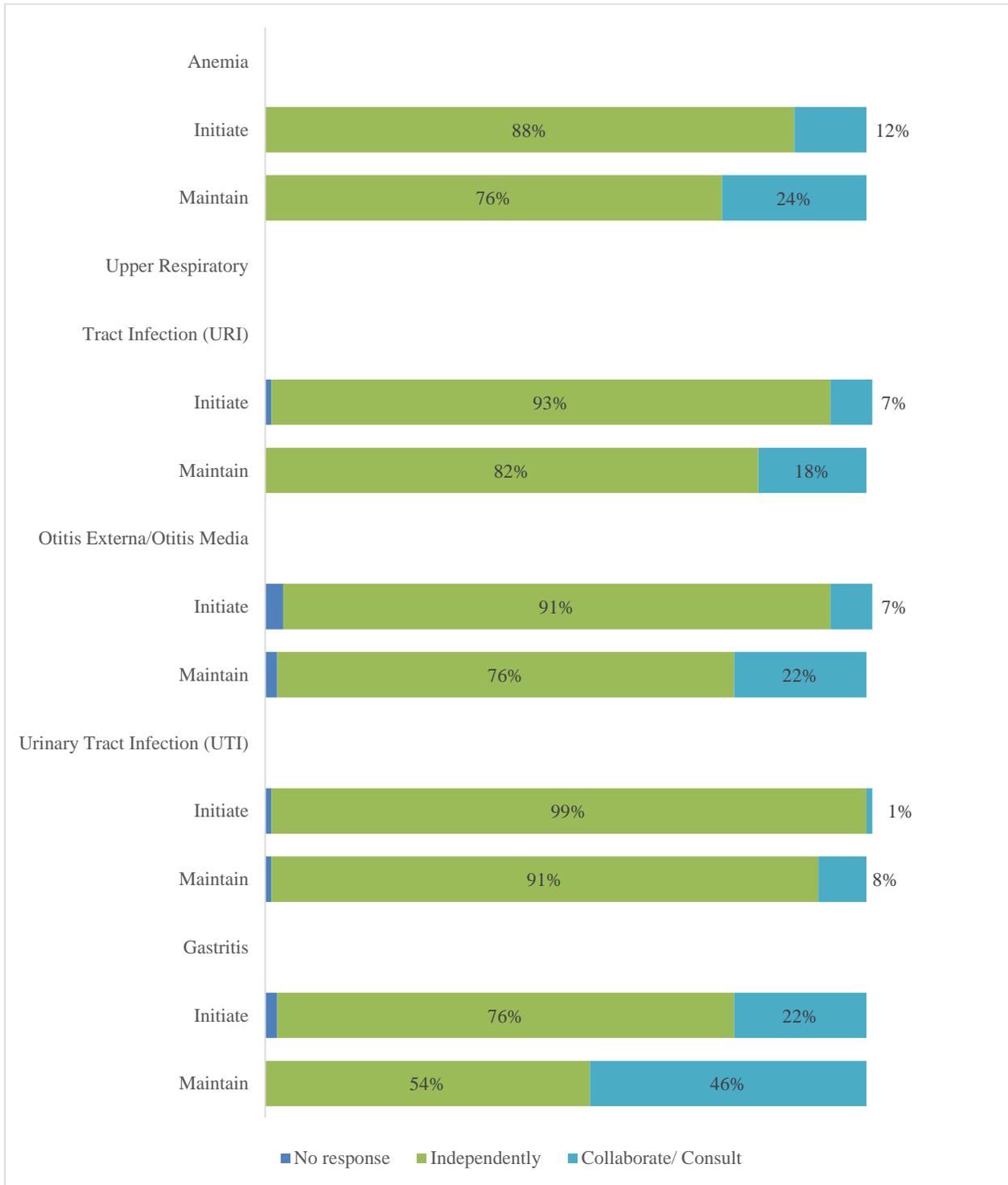


Figure 12. Common mental health conditions including whether respondent screens, initiates, maintains, or refers for treatment.

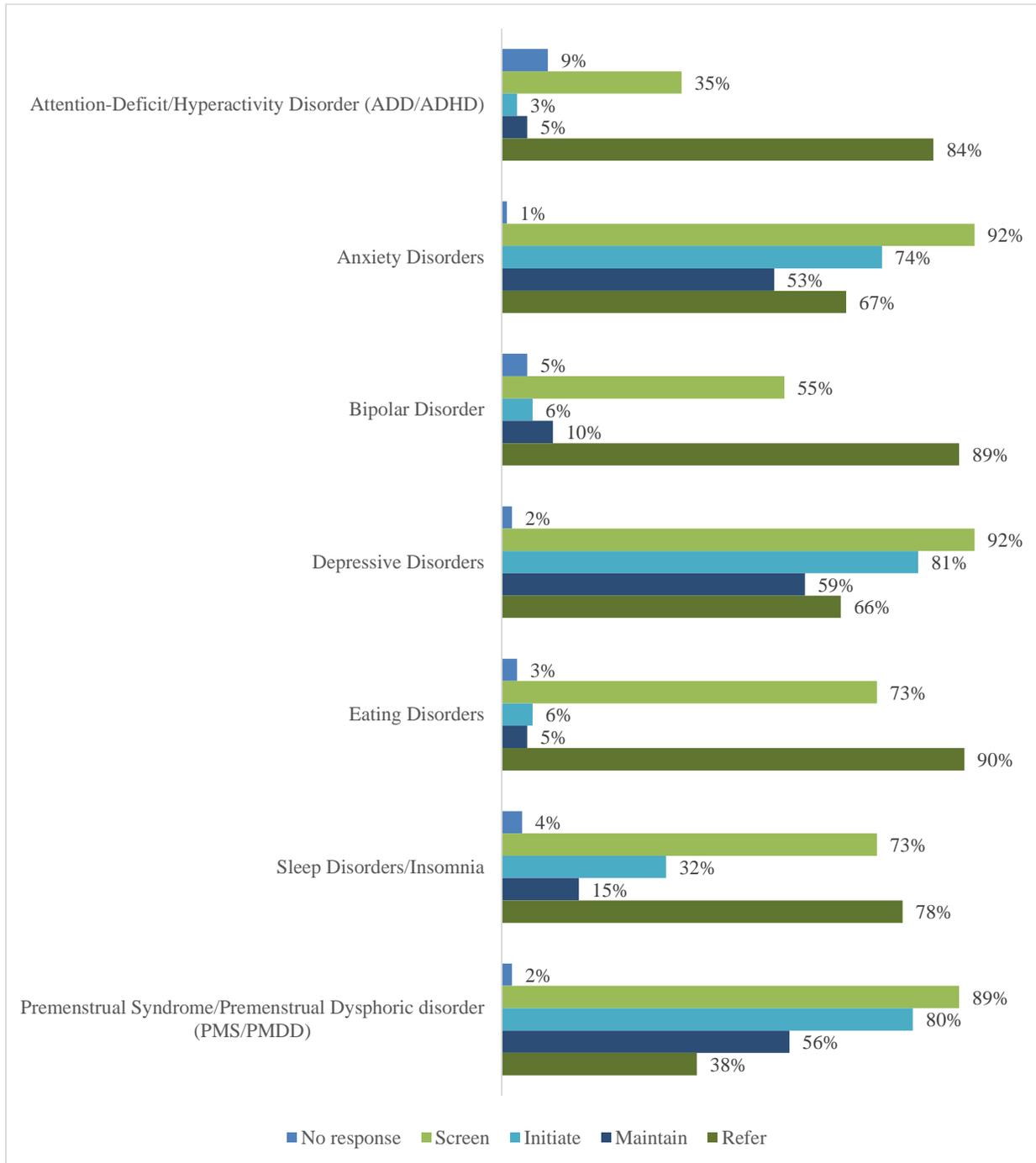
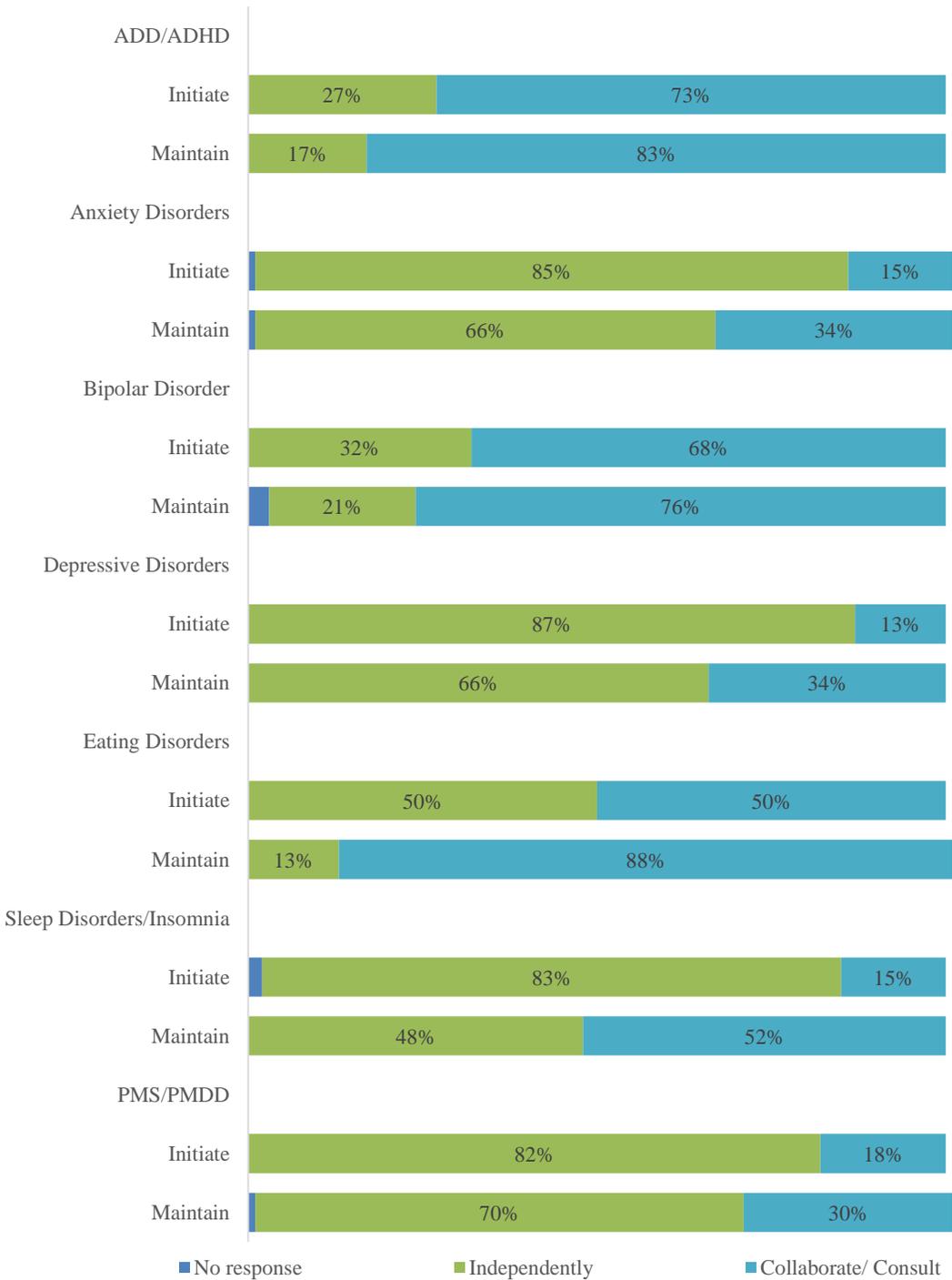


Figure 13. Common mental health conditions: Independent or collaborative initiation and/or maintenance of treatment



Primary Care Comments.

Table 18 lists comments provided by respondents after completing the primary care section of the task analysis. Comments are presented in order of chronic, acute, and mental health tasks/conditions.

Table 18. Primary Care Comments: Respondent Comments About the Primary Care Section of the Task Analysis.

Common Chronic Conditions—Comments
1. Should have a bigger breakdown of management. Like non pharmacological management vs management vs intervention/surgical etc. some I may manage depending on what like headache I may manage independently some or collaborate/refer some
2. for diabetes: it's for gestational diabetes
3. Anxiety and Depression are missing from this list
4. I would add the difference between pregnant people and non pregnant people because the management style and independence varies
5. Obesity/insulin resistance as the underlying cause of PCOS should be taught so root causes can be addressed, not simply covered with OCPs.
6. varicose veins; have only ordered venous dopplers and antiembolic stockings for pregnant women, not sure what else referring to as far as management.
7. I think primary care is very important but we need to stay in scope and refer as needed. Once management has been initiated I think midwives should be able to maintain support and script meds if needed
8. Thyroid Disorders- New onset, may refer to Endo if complicated. Obesity- if complicated or for surgery- refer and collaborate care
9. I don't see non-pregnant women so I could not answer any of the "management" questions.
10. The only non-pregnant pts. I see are established patients with substance use disorder or post partum mood disturbances.
11. I am also an FNP.
12. BMI is a racist construct: midwifery and health care is fatphobic and this needs to be addressed.
13. Section is unclear about whether management implies medication or includes counseling/lifestyle changes.
14. I marked refer for management on almost all, even ones I normally manage independently because it often depends on the patient specific situation. I will handle basic management independently or collaboratively, but for patient's who have more severe or more complicated illness I refer out.
15. As a FNP I have the ability to care for all of the above however the practice separates midwifery care from primary care
16. mental health - I screen and manage and sometimes refer
17. Faculty, I do not personally perform any of these

Table 18. Primary Care Comments: Respondent Comments About the Primary Care Section of the Task Analysis, cont.

Common Chronic Conditions—Comments, cont.
18. I currently only see pregnant individuals or those in the postpartum period, so many of these would not have suddenly popped up as issues in that time frame.
19. Depression, anxiety
Common Acute Conditions—Comments
1. Many of these are nuanced. For example, with anemia it may depend on the type. Thalassemias I would collaborate or refer, whereas IDA I can manage.
2. Gastritis is a bit vague, I think expanding and review H pylori vs GERD vs ulcers vs upper GI bugs and lower GI bugs would be helpful
3. If my initial actions aren't successful, I often collaborate or refer after that.
4. I am also an FNP.
5. See previous note. I refer if the patient has more complicated or more severe illness, but can often manage simple illness independently.
6. Faculty, I do not personally perform any of these
7. Again, the only non pregnant folks I see are in the initial 8 weeks after delivery.
Common Mental Health Conditions
1. Mental health is very important and we are uniquely equipped to interface with individuals needing support in this area! It is important to know when to refer to a higher level of care
2. I am also an FNP.
3. Again - I refer for more severe/complicated illness or illness that is not responsive to initial treatment, but do manage basic anxiety or depression independently.
4. We work with a program called PRISM and they help us with initiation and management of various mental health disorders... some things I'm comfortable with.. anxiety, depression... but when it gets complicated... I refer
5. for anxiety/depression, I manage but do consult Periscope Perinatal project often
6. Faculty, I do not personally perform any of these
7. Since I only do OB related care, if one of these issues is caught fairly early in the PP period, I can initiate and maintain therapy during that time, but we release from care at 8w pp, so we have to transfer out after that.

Participant Suggestions for Tasks on Future Task Analyses

Table 19 lists comments that were provided by respondents when asked to comment on topics to include in future task analyses.

Table 19. Respondent Opinions Regarding Tasks to be Added to Future Task Analyses.

1. 3rd degree lacerations
2. Annual Salary. We really need to establish national/state standards for compensation.
3. Business questions
4. Can't think of any
5. Clinical hours and experience
6. collaboration with OOH providers, how to facilitate ease of transfer
7. Dating pregnancy u/s skills
8. Education
9. EFM, and standard nomenclature
10. Everything was covered.
11. Extra on the job duties that midwives are able to perform. HSGs, Circumcisions, skin biopsies etc.
12. Gender affirming care
13. gynecological care
14. HRT
15. I cant think of any
16. I don't manage this situation because I practice in a birth center, but I think questions that may be pertinent to hospital-based midwives around the care of Preterm Premature Rupture of Membranes are appropriate.
17. I felt my WH/gyn skills and primary care weren't as strong as I would have liked them to be coming out of my very OB focused program.
18. If we aren't practicing as midwives for whatever reason (for me it's because there are no jobs for new grad midwives in Southern Colorado and it has been this way for about 4 years now and I can't move states or cities), what are we doing instead? For me, I am enrolled in a post-graduate Nurse Practitioner certificate in psychiatric mental health. I hope to combine my education as a CNM and as a future PMHNP to better address women's psychological issues being as I can't find a job to practice as a CNM.
19. incision & drainage
20. Induction termination/loss counseling; Identifying a spontaneous abortion Pregnancy and postpartum nutrition
21. Lactation
22. Language and testing difficulties and barriers based on English as a second language
23. more GYN questions (ovarian cysts, fibroids, vulvar abscesses, etc.) as these make up and unexpectedly large portion of my current practice
24. More information gathered about newborn care and management. In my practice we are the newborn's primary care providers until 28 days of life and manage the weight loss/gain, breastfeeding, jaundice, circumcision management, etc.
25. More questions on perineal repairs
26. More reproductive endocrinology
27. N/A

Table 19. Respondent Opinions Regarding Tasks to be Added to Future Task Analyses, cont.

28. N/A for additional areas of practice. But I do want to say that the options for recertification are not ideal...having only 2 options (certification modules/CEUs OR to take the certification exam again-that's a terrible option). After becoming a certified midwife, nobody should ever have to retake that exam again.
29. natural family planning, infertility, menopause
30. newborn circumcision
31. No but the certs and recert questions are backwards
32. none, this was comprehensive
33. None-overall I believe you covered it well
34. Outreach care... We provide care to Indigenous women in an outreach setting... I feel many of my sister midwives provide this type of care not really reflected in options...
35. Pessary, Urinary incontinence
36. Pessary and menopause or pessary cleaning separate from menopausal issues. More urogyn perhaps.
37. pregnancy and birth complications
38. Primary Care Skills
39. primary care, newborn care, labor/birth management, postpartum depression management
40. Providing education and training to Resident Physicians, Student Nurse Midwives, Nurses, etc.
41. Recertification requirements are ridiculous. AMCB is the only board I know of that require modules in addition to CE hours. For those of us practicing full-time, full-scope it is quite a burden, on top of teaching students, being on-call, etc. I wish AMCB would reconsider this requirement or do a knowledge assessment similar to NCC.
42. The skills needed in the intrapartum setting: managing vbac, induction of labor methods.
43. The survey was quite long, but I don't recall as much about preventative care, other than vaccinations. Or about special needs for teens.
44. There should be more clarity around what you mean by "important." For example, I don't first assist on gynecological surgeries, nor do I think midwives need to do this, but I do think that role is important. Is that what you mean? Or do you mean, if I indicate a skill is "important," that it is important that a midwife do this? What does "important" mean? Important to and for whom?
45. There should be more discussion about management of complications and explanation of management that differs between stable and unstable conditions
46. Trauma Informed Care
47. Work life balance

Participant Comments about Certification Requirements

Table 20 lists the comments that were provided by respondents when asked for feedback about current certification and recertification requirements.

Table 20. Respondent Comments about Current Certification and Recertification Requirements.

CNM Eligibility Requirements
1. I don't believe the attestation of safety should be decided by the midwifery director only. I think there should be evidence of a roundtable type discussion done by the primary integration preceptor, the program director, and the student to review competency
2. I selected yes. However for nurse-midwifery programs I believe every student should have worked as a nurse before graduate school and should have some exposure to birth.
CM Eligibility Requirements
1. I selected yes. Although I think that a candidate meeting those requirements would be safe to practice. I believe CNMs are more respected having taken and passed "boards." Other professions (i.e., MD/DOs) may not see CNMs as competent if no exam was taken.
2. My "no" pertains to the clinical aspect and I truly believe there should be more hours than what were required. I feel like we should have a residency program after we graduate to feel safe and competent. With my CNM job as a laborist I felt very incompetent, nervous, and not ready. I chose to take a step back from this field because I didn't feel as prepared and wish I could have gone through residency training after I graduated to feel more competent as a provider. There are days where I question if I made the right decision stepping down because there are many aspects as a midwife that I truly love.
3. I selected Yes. But with respect to the question on the previous page, I believe that midwives should not have to become RNs in order to practice excellent, evidence-based midwifery.
4. Having certified midwives vs certified nurse midwives are hard for patients to differentiate. In Michigan we see patients receiving care in homebirth settings with the understanding that their certified midwife has the same level of education and privilege's as a certified nurse midwife.
5. I answered Yes above. On previous page, I answered No, as I do not believe that a midwife should have to become a nurse before practicing midwifery.
6. I believe that there shouldn't be a differentiation between CMs and CNMs. As long as we all receive equal midwifery training and all pass the AMCB examination, there shouldn't be a necessity of "proof of licensure, active on the date of the examination, as a U.S. Registered Nurse" for CNMs.
CNM and CM Recertification Requirements
1. The modules are a lot. If one is actively working that should suffice for the contact hours.

Table 20. Respondent Comments about Current Certification and Recertification Requirements, cont.

CNM and CM Recertification Requirements, cont.
2. It seems like other professions like MDs and PAs are much better prepared for beginning practice than CNMs. They have time-honored clinical education sites, whereas CNM students have to find their own or are constantly scrambling to get their clinic sites. There is an expected amount of "on-the-job" training for CNMs, but other professionals are expected to be ready from day 1.
3. My education was extremely sub-par. I did not feel that the level of education I received was adequate or commensurate with the amount of money I paid for it. I was not adequately prepared to enter the workforce but there seems to be little to no supervision on the quality of midwifery programs.
4. I have no problem with the requirements for recertification, but I purchased my first module packet 1 week ago (received confirmation) and have still not received access to module articles. Access could be more timely.
5. Although "yes" is indicated, I intended to answer "no" to the previous question but was then not given this comment box to respond further. I think some sort of minimum number of hours in practice should possibly be required for recertification.
6. A director verifying that you completed the program should mean that you are competent as well. There should not be a need to attest as well.
7. I think that people can develop competency as midwives outside of the AMCB system, such as CPMs, etc. I agree that the standards used for certification are fine, but based on the wording of the question, there are plenty of competent midwives who are not CNMs/CMs
8. If a person graduates from the program, letters of verification become redundant
9. these are necessary to stay current on evidence-based practice.
10. I haven't re-certified yet so I don't know.
11. These requirements are a bit excessive given that Midwives are already required to maintain their RN licenses (which have CEs) as well as my WHNP license. All of the CEs feel a bit excessive and taking several hours out of my busy schedule to take an examination is difficult.

Discussion

The results of the 2022 Task Analysis indicate that early-career AMCB certified midwives care for a wide range of conditions during pregnancy and across the lifespan. Within their first years in practice, midwives are caring for low and moderate risk clients with varying degrees of medical complexity. Newborn care continues to be the least common area of early-career practice, although it is still considered germane to the scope of midwifery practice. The task analysis did not result in any recommendations for change to the AMCB certification exam blueprint.

Demographics

The demographic characteristics of the sample reflected the characteristics of midwives who have certified within the past 5 years. The average age of survey respondents was 36.3 years, which was consistent with the AMCB demographics report that the average age at the time of initial certification is 37.5 (SD 7.15).

The majority (84.6%) of task analysis survey respondents self-identified as White (See Appendix J) which is slightly less than in the current AMCB population (85.5%; AMCB, 2021). The number of respondents self-identifying as Black or African American (6.6%) was slightly higher than the 2017 Task Analysis (5.2%) but lower than that in the full population of early-career CNM/CMs (9.0%; AMCB, 2021). Given the wide ethnic and racial diversity of women in the US and recent evidence about provider-patient racial concordance resulting in improved outcomes (Greenwood et al., 2020), it is essential that efforts to recruit and retain midwives of an increasingly heterogeneous population continue. Diversity, equity, and inclusion are the foundation of the *ACNM 2021-24 Strategic Plan* (ACNM, 2020). Using a stratified random sampling methodology in future task analyses has the potential to ensure that the task analysis sample better represents the experience of diverse midwives.

Consistent with prior task analyses, few survey respondents were CMs compared to the majority of CNM respondents. While only 1.3% of analyzed respondents were CMs, this constituted 17.2% ($n = 29$) of CMs who were eligible to participate; therefore, CNM/CM data

were aggregated to maintain anonymity. An increased number of respondents reported holding a Doctor of Nursing Practice degree (DNP, 12.3%) compared to 2017 Task Analysis respondents (6.6%). This likely reflects the increase in the number of DNP programs available to midwives (American Association of Colleges of Nursing, 2014).

A notable percentage of respondents in the current task analysis reported working 40 or more hours per week ($n = 292$, 76.2%), which is lower than that reported in the 2017 Task Analysis, in which approximately 90% reported working “full-time.” However, it is concerning that 14.0% ($n = 40$) of the sample reported working 60 or more hours per week given the positive correlation between workload and burnout. This finding may foreshadow future problems with sustaining the midwifery workforce (Thumm et al., 2021).

Emerging perinatal research increasingly demonstrates the importance of various practice characteristics on provider wellbeing and quality of care (Glazer et al., 2021; Triebwasser et al., 2019). The primary places of midwifery employment continue to be hospitals and physician-owned practices. There was a small increase in the percentage of midwives working in midwifery groups compared to that reported in the 2017 Task Analysis (15.1% vs. 12.4%). This finding is consistent with all AMCB certificants, of which approximately 14% are employed in midwifery-owned and/or managed practices. With political will to expand birthing options, including community birth, it will be important to continue to track where newly certified midwives are employed into the future.

The 22% increase in community birth in the US during the time covered by this task analysis was likely associated with the COVID pandemic (Gregory et al., 2021). Additionally, there has recently been an increased focus on the improved patient outcomes, including higher patient satisfaction, found in community birth settings (Mattison et al., 2018). The 2022 Task Analysis reflected this increase in home birth, with 20.0% of respondent-attended births occurring in birth centers and 7.0% occurring at home in comparison to the respective 14.1% and 4.6% reported in the 2017 Task Analysis. It is essential to continue to monitor these data to identify trends in CNM/CM birth attendance in out-of-hospital birth settings.

In the current task analysis, 80.5% of respondents held hospital privileges or had pending hospital privileges. This is a decrease from the 86.5% reported in the 2017 Task Analysis. Medical staff membership is essential to ensure independent midwifery practice, accurate insurance compensation, and acknowledgement by national surveillance mechanisms for work performed (ACNM, *n.d.*). This is an ongoing political issue, with only 34 states having policies explicitly permitting hospitals to extend medical staff membership to CNMs. 97.4% of respondents reported holding confirmed or pending prescriptive privileges, which is a small increase from the 94.0% who reported this on the 2017 Task Analysis. This is not surprising given that laws in all states allow for CNM prescriptive practice, although a variety of state-specific requirements affect the degree of independent prescribing and the timeframe for obtaining independent prescriptive privileges across states (Osborne, 2015).

Respondents reported providing care in the various midwifery domains at rates similar to those reported in the 2017 Task Analysis, with 95.3% providing antepartum care, 90.1% providing intrapartum care, 93.7% providing postpartum care, 94.5% providing well woman/GYN care, and 25.3% providing newborn care. Although fewer early-career midwives have reported providing less newborn care than care in all other practice domains over the last three task analyses, this number has increased by 6.6% since the 2017 Task Analysis. This trend in providing newborn care, which is a core midwifery competency, requires further monitoring and more rigorous evaluation.

Unlike the last three task analyses which have reported a decline in the proportion of CNMs/CMs providing primary care, the 2022 Task Analysis results show a 24.8% increase in those providing primacy care since 2017 (from 31.9% to 56.7%). This large increase may be related to patient- and system- driven shifts in care related to the COVID pandemic or to the restructuring of the current task analysis format. Regardless, this is generally a positive indicator given the continued shortage of primary care providers.

Midwives continued to indicate that they provide care for those with abnormal as well as normal conditions. It is well known that midwives frequently provide high-quality care for at-

risk women (Renfrew et al., 2014; Sandall et al., 2016; Thornton, 2017). Respondent estimates of the proportion of clinical practice time spent caring for patients with abnormal conditions has continued to increase since the 2012 Task Analysis. In 2012, respondents estimated 41.0% of their clinical practice time was spent caring for patients with abnormal conditions. In 2017 this estimate increased to 48.4%, and in the 2022 Task Analysis it rose to 53.8%. This trend of increasing midwifery clinical care time being spent on caring for patients with abnormal conditions should be monitored in future task analyses to ensure that the certification exam continues to reflect contemporary midwifery practice.

Midwifery Practice Domains

Antepartum Care

Clinical Tasks.

The antepartum section of the task analysis consisted of 46 tasks (Table 2). A large majority of survey respondents indicated they provide antepartum care (n = 365, 95.3%), with most providing care in an outpatient clinic or office. The unweighted mean composite score of antepartum tasks (7.9) was higher than that of any other domain of midwifery practice, indicating that newly certified CNMs/CMs perform these tasks with high frequency and that they place high importance on midwives having the knowledge and skills to perform these tasks.

The highest mean frequency score (4.9, n = 2) in this section was related to risk assessment and counseling about normal physiology and common discomforts of pregnancy. The tasks with the next highest mean frequency score (4.8, n = 9) were related to tasks assessing for normal progression of pregnancy and educating the patient about fetal movement and medications during pregnancy.

Tasks with low mean frequency scores (range 1.3-2.8) included those related to providing group or Centering Pregnancy care (1.3), performing pelvimetry (2.3), caring for pregnancies complicated by abnormal maternal antibodies (2.5), referring for colposcopy during pregnancy (2.7), and counseling and supporting women with intrauterine fetal demise (2.8).

Antepartum tasks with the lowest mean importance scores correlated with those with the lowest mean frequency scores (i.e., *Performs pelvimetry to evaluate the bony pelvis* (2.3 mean importance and 2.5 mean frequency) and *Provides group or Centering Pregnancy™ care* (2.9 mean importance and 1.3 mean frequency scores). Tasks with the highest mean importance scores (3.9) included *Provides counseling and support for women experiencing early pregnancy loss; Evaluates historical, physical, and laboratory data to determine current gestational age and due date; Evaluates prior obstetric and medical history to assess risk status during current pregnancy; Counsels about normal physiology of pregnancy, common discomforts, and self-care during pregnancy; Orders and interprets routine laboratory tests during pregnancy; Identifies deviations from normal pregnancy; Auscultates FHTs with pinard, fetoscope, or doppler; and Orders Rh immunoglobulin when indicated during pregnancy.*

Like the tasks with the lowest mean importance scores, many tasks with the highest mean importance scores correlated with the tasks with the highest mean frequency scores. These included the following tasks with mean importance scores of 3.9 and mean frequency scores of 4.8 - 4.9: *Evaluates historical, physical, and laboratory data to determine current gestational age and due date; Evaluates prior obstetric and medical history to assess risk status during current pregnancy; Counsels about normal physiology of pregnancy, common discomforts, and self-care during pregnancy; Orders and interprets routine laboratory tests during pregnancy; Identifies deviations from normal pregnancy; and Auscultates FHTs with pinard, fetoscope, or doppler.*

The antepartum task with the highest unweighted mean composite score, *Evaluates prior obstetric and medical history to assess risk status during current pregnancy* (8.8), also had the highest mean frequency (3.9) and importance (4.9) scores. Antepartum tasks with the next highest unweighted mean composite scores (8.7) included *Evaluates historical, physical, and laboratory data to determine current gestational age and due date; Counsels about normal physiology of pregnancy, common discomforts, and self-care during pregnancy; Orders and interprets routine laboratory tests in pregnancy; Identifies deviations from normal pregnancy; Auscultates FHTs with pinard, fetoscope, or doppler; Determines uterine size or fundal height*

using bimanual exam, fingerbreadths, and/or centimeter tape; Performs Leopold’s maneuvers to determine presentation, lie, position of fetus, and estimated weight of fetus; Counsels about fetal movement awareness and/or counting.

Two antepartum tasks fell below the unweighted mean composite score cut point of 5, including *Performs pelvimetry to evaluate the bony pelvis* (4.8) and *Provides group or Centering Pregnancy™ care* (4.2). After deliberation, the Research Committee chose not to recommend either task to the Board of Directors for removal from the certification exam blueprint. Although clinical pelvimetry should not be used to predict cephalopelvic disproportion or to decide mode of birth (NICE, 2022), committee members agreed that it continues to be relevant to clinical midwifery practice, especially in low resource settings where other methods of assessing the bony pelvis may not be available. Centering Pregnancy™ supports the relationship-centered midwifery model of care and has been associated with improved physical and mental health outcomes (Buultjens, et al., 2021; Haberlein, E. C., et al., 2021).

Clinical Conditions.

Twenty-one antepartum conditions were assessed for management during the antepartum period (Fig. 1, 2). Respondents were asked to share the level of management they provide for each condition (i.e., initiate, maintain, refer) as well as the level of involvement with other providers in the management of the condition (i.e., independent management, collaborate/consult). Respondents could select more than one category of management. Thus, a respondent could screen and initiate treatment or screen and refer for treatment of any condition. Respondents could also opt to “not respond” to each condition listed. The overall non-response rate was low (0 - 2%).

Respondents indicated that they initiated some level of management for all antepartum conditions. Conditions with the highest rates of management initiation included iron deficiency anemia in pregnancy (99%), hyperemesis (93%) gestational diabetes not on medication (A1GDM) (87%), and headache/migraine (80%). Most respondents initiated management through a mechanism of consultation/collaboration. Exceptions to this included iron deficiency

anemia in pregnancy (93%), headache/migraine (81%), hyperemesis (77%), obesity (BMI > 40) (76%), mood disorders (74%), and gestational diabetes not on medication (A1GDM) (74%). Conditions with the lowest independent management initiation rates included preexisting diabetes (28%), gestational diabetes on medication (A2GDM) (22%), gestational hypertension or preeclampsia with severe features (13%), seizure disorders (12%), HELLP syndrome (7%), and HIV (6%) (See Tables 11 and 12).

Examination of the level of management maintained (i.e., independent management or collaboration/consultation) revealed that while respondents are maintaining management of many conditions that affect pregnancy, they are doing so within the context of collaboration and/or consultation. Collaboration/consultation for antepartum conditions was the management plan most frequently employed for the majority of the 21 antepartum conditions. ACNM acknowledges that the independent practice of midwifery includes the processes of consultation, collaboration, and referral (ACNM, 2014). The process by which midwives seek to and do consult and/or collaborate with other providers is worthy of further investigation.

Conditions for which respondents were most likely to maintain independent management included iron deficiency anemia in pregnancy (81%), gestational diabetes not on medication (60%), obesity (57%), mood disorders (56%), headache/migraine (53%), and hyperemesis. Respondents were least likely to independently maintain treatment for gestational diabetes on medication (A2GDM) (10%), HIV (9%), pre-existing diabetes (7%), gestational hypertension or preeclampsia with severe features (5%), seizure disorders (3%), and HELLP Syndrome (2%).

Antepartum Comments.

In the 10 free text comments about the antepartum tasks section of the survey (Table 3), respondents shared information about the limitations of their practice and how their practice setting affects the tasks they perform. They also mentioned the influence of COVID on their Centering Pregnancy™ programs and the settings they worked in. One did not personally perform any of the antepartum tasks because they were faculty.

Three of the six comments about the antepartum conditions section of the survey focused on caring for patients with a prior cesarean. One noted that it was not possible to independently manage a surgical situation. Comments reflected the variability of individual clinical practice situations and how this influenced respondents' decisions about whether to independently manage a condition, co-manage/consult, or refer for care. These comments reflect the need to clarify these clinical situations in future task analyses.

Intrapartum Care

Clinical Tasks.

The intrapartum section consisted of 64 tasks (Table 5). There was discordance between the number of survey respondents indicating they provided intrapartum care ($n = 345$, 90.1%) and the number of respondents assessing intrapartum tasks, conditions, and the level of management in this section ($n = 272$, 79%). Most respondents indicated they provided hospital-based intrapartum care (84%).

The highest mean frequency scores in this section (4.8) represent tasks for evaluating the laboring patient and fetus as well as management (physical and emotional) of labor progression. High frequency scores were also noted for placental inspection for completeness and normalcy, inspection of genitalia for lacerations, and delayed cord clamping.

Tasks that received low frequency scores (range 1.1–1.7) included those related to advanced skills such as *Administers pudendal anesthesia* and *Performs vacuum assisted birth*. Low frequency scores were also noted for tasks addressing the management of abnormal fetal presentation (i.e., *Attends birth of infant in breech position*; *Performs manual rotation of fetus in occiput posterior position (OP)*). The task *Performance of episiotomy when indicated* also had a low frequency score (1.7), regardless of the angle of the episiotomy (median or mediolateral).

Mean importance scores ranged from a high of 3.9 (*Evaluates for onset of labor*; *Determines position of presenting part by Leopold's and vaginal examination*; *Provides emotional support during labor*; *Evaluates physical response to labor*; *Promotes progress in the*

*second stage of labor; Performs delayed cord clamping when appropriate; Examines for birthing lacerations and/or episiotomy extensions and identifies need for repair; Inspects placenta and membranes to ascertain completeness; Evaluates fetal condition following rupture of membranes to determine fetal wellbeing; Repairs 1st or 2nd degree lacerations of the perineum; Evaluates etiology of postpartum hemorrhage, including assessment of uterine atony and vaginal and cervical lacerations; Controls third stage postpartum hemorrhage; and Implements maneuvers to resolve shoulder dystocia) to a low of 2.4 (Administers pudendal anesthesia). The low importance scores corresponded with the same low-scoring frequency tasks with the addition of the task *First assists at cesarean birth*.*

Intrapartum tasks with the highest unweighted mean composite scores (8.7) included *Evaluation for onset and progression of labor; Support during labor; Delayed cord clamping; and Evaluation and repair of birthing lacerations*. Five intrapartum tasks had unweighted mean composite scores that fell below the cut point of 5: *Administers pudendal anesthesia; Performs vacuum assisted birth; Attends birth of infant in breech position; Attends birth of infant with face presentation; and Performs manual rotation of fetus in occiput posterior position (OP)*. Review of these tasks by Research Committee members resulted in a recommendation to the AMCB Board of Directors to eliminate the following tasks from the test blueprint: *Performs vacuum assisted birth* (3.6) and *Administers pudendal anesthesia* (3.4). Despite low unweighted mean composite scores, tasks associated with the delivery of the infant in abnormal presentations or positions are important for midwives to have the knowledge and skills to perform, as breech malpresentation remains the most common type of abnormal fetal malpresentation (Pilliod & Caughey, 2017). Manual rotation of the occiput posterior fetus is a reasonable midwifery intervention to reduce the need for operative vaginal or cesarean birth (American College of Obstetricians and Gynecologists, 2014).

Clinical Conditions.

Nineteen conditions (Figs. 3, 4) were assessed for degree of management during the intrapartum period. Respondents were queried regarding the level of management (initiate, maintain, refer) as well as the level of involvement with other providers in the management of

the condition (independently management, collaborate/consult). Respondents could identify more than one category. Thus, a respondent could screen and initiate treatment or screen and refer for treatment of any condition. Respondents could opt to “not respond” to each condition listed. The overall non-response rate was low (range of 1 - 4%).

Importantly, there were no conditions for which respondents indicated they did not initiate some level of management. Conditions with the lowest percentage of respondents initiating treatment ($\leq 33\%$) were pre-existing diabetes (33%), HELLP syndrome (32%), HIV (25%), preterm labor at 32 0/7 -33 6/7 weeks (31%), and very preterm labor at 28 0/7 to 31 6/7 weeks (21%). These conditions correspondingly had the highest rates of referral associated with them: pre-existing diabetes (71%), HELLP syndrome (85%), HIV (76%), preterm labor (45%), and very preterm labor (92%).

Ninety percent of respondents maintained management of gestational diabetes, not on medication (A1GDM) while only 40% maintained management of preeclampsia with severe features. Respondents noted that they frequently maintained management of protracted labor (86%), obesity BMI > 40 (80%), intraamniotic infection (80%), preeclampsia without severe features (75%), previous cesarean delivery presenting in spontaneous labor at term (69%), and preterm labor at 34 0/7 to 36 6/7 weeks (68%). This section of the survey showed that management of conditions complicating pregnancy and that can potentially complicate labor are being managed by midwives.

Examination of the level of management (independent or collaborate/consult) revealed that while respondents are maintaining management of many conditions that affect labor and birth, they do so within the context of collaboration and/or consultation. Collaboration and consultation is a common part of the workflow for the majority of the 19 conditions during initiation of care, and it increases when respondents maintained care during labor and birth.

Respondents indicated that they were most likely to maintain independent management for obesity BMI > 40 (72%) and gestational diabetes not on medication (A1GDM) (67%) and were least likely to maintain and independently manage HELLP syndrome (0%), gestational

hypertension on medication or preeclampsia with severe features (3%), very preterm labor 28 0/7 to 31 6/7 weeks (6%), preterm labor 32 0/7 to 33 6/7 weeks (8%), HIV (9%), preexisting diabetes (9%), and gestational diabetes on medication (A2GDM) (14%).

Reinstating the conditions section in the task analysis provides important information about the number of midwives who independently care for people with conditions that may complicate labor and birth. Opportunities for interprofessional collaboration/consultation between midwives and physicians and changes in practice norms have made it increasingly more likely for midwives to remain an important part of the care team when pregnancy is complicated by medical conditions (Smith, 2016).

Intrapartum Comments.

Analysis of free-form comments in the intrapartum tasks section (Table 6) showed that in many instances, the performance of a given task depends on the birth setting (hospital vs. community) and the availability of resources. For example, several respondents noted that many tasks may be performed by the RN or the neonatal team. Some respondents noted that they do not currently perform some of the listed tasks but that they did so in a previous setting or in a prior role as a labor and delivery nurse. Two respondents noted that they only use ultrasound to verify fetal position in the setting of ruptured membranes in a non-laboring patient. One respondent indicated they were actively training for a skill (first assistant at cesarean) but have not yet been proctored and approved to perform that skill.

Analysis of respondent comments about intrapartum conditions provides an opportunity for the Research Committee to refine this section in future task analyses. Suggestions for improvement included clarifying whether a condition was stable or deteriorating, allowing the respondent to indicate that whether they would consider maintaining certain management under certain parameters, and being able to report the level of disease severity.

Postpartum Care

Clinical Tasks.

There were 19 postpartum tasks (Table 8) included in the task analysis survey. 359 respondents indicated that they provided postpartum care and 260 (72.4%) completed the postpartum section of the survey. Most respondents ($n = 359$, 93.7%) indicated that they provided postpartum care, with 79.2% providing that care in the hospital. Other locations where postpartum care was provided were community birth center (16.4%), in-hospital birth center (4.4%), in the home (8.0%), and other locations (8.4%). Outpatient settings were not included as an option for postpartum care. There were no postpartum tasks recommended to the AMCB Board of Directors for consideration of removal from the certification exam blueprint.

Formatting of the 2022 Task Analysis survey varied somewhat from the 2017 Task Analysis survey, which included several conditions within the item *Evaluates for postpartum abnormalities*. The Research Committee agreed to separate these tasks into their component parts for clarity and to collect more detailed information. For example, the item *Initiates postpartum deep vein thrombosis prophylaxis treatment when indicated* had an unweighted mean composite score of 5.8 in the current task analysis but was included in the global *Evaluates for postpartum abnormalities* in 2017 with a higher unweighted mean composite score of 8.6. Tracking items separately will provide more nuanced information about midwives' provision of postpartum care into the future.

The item with the highest mean frequency score was *Evaluates the woman for physical adaptation to the postpartum period* (4.9). This was followed by *Evaluates for psychosocial adaptation to the postpartum period* (4.6), *Evaluates for and manages common postpartum discomforts (e.g., postpartum pain, perineal discomfort, breast engorgement, hemorrhoids, excessive perspiration)* (4.6), and *Counsels about postpartum sexuality and family planning* (4.6). Other high frequency items included those concerned with breast care and lactation and screening for postpartum psychiatric conditions. Tasks with the lowest mean frequency scores were *Places post-placental IUDs* (1.4) and *Initiates postpartum Deep Vein Thrombosis (DVT) Prophylaxis when indicated* (2.5).

No postpartum mean importance scores were ≥ 4.0 , however, eight of the 19 tasks had scores of 3.8. As with the highest frequency scores, these items were associated with evaluation of and facilitation of adaptation to the postpartum period. The item identified as least important was *Places post-placental IUDs* (1.4). This is an interesting finding worthy of continued surveillance as the practice of post-placental IUD placement is becoming more common and is supported by professional guidelines (Averbach et al., 2020; ACOG, 2016).

The task with the highest unweighted mean composite score was *Evaluates the woman for physical adaptation to the postpartum period* (8.7), followed by *Evaluates for psychosocial adaptation to the postpartum period* (8.5), and *Evaluates for and manages common postpartum discomforts* (8.4). These findings are similar to those of the 2017 Task Analysis, suggesting evaluation and management of common postpartum events and conditions is an enduring priority of midwives.

Postpartum tasks with the lowest unweighted mean composite scores were *Places post-placental IUDs* (4.3) and *Initiates postpartum deep vein thrombosis prophylaxis when indicated* (5.8). *Places post-placental IUDs* was not included on the 2017 Task Analysis. While some evidence has shown an acceptably low rate of post-placental IUD expulsion, other researchers have found post-placental expulsion rates of up to 25%, which may be a factor in midwives' decision making whether to perform this task (Averbech et al., 2020; Maragoni et al., 2021).

Clinical Conditions.

Sixteen postpartum conditions were included in the 2022 Task Analysis. As with the postpartum tasks, 260 of the respondents completed this section. Respondents indicated whether they screen, initiate, maintain, or refer for treatment for any given condition, and multiple responses were permitted. Respondents who indicated initiating or maintaining treatment were presented with a follow-up question about whether that treatment was provided independently or with collaboration or consultation. They could also choose not to respond. The non-response rate for each condition ranged from 0 to 3%. Conditions with a 0% non-response rate included *Abdominal Wound Infection and/or Dehiscence*, *Delayed Postpartum Infection*, and *Deep Vein*

Thrombosis (DVT) or Postpartum Thrombophlebitis. The non-response rate for *Postpartum Thyroiditis* and *Postanesthesia Complications* (e.g., *spinal headache*) was 3%.

Most respondents reported screening for each of the 16 conditions. Respondents were most likely to screen for *Postpartum Mood and Anxiety Disorders* (98%), *Mastitis/Postpartum Breast Infection* (97%) and *Urinary Tract Infection* (96%). The conditions least likely to be screened for by respondents were *Postanesthesia Complications* (e.g., *spinal headache*) (79%), *Abdominal Wound Infection and/or Dehiscence* (82%) and *Pulmonary Embolism* (82%). This is a concerning finding that is worthy of additional clarification on future task analyses given the severe and potentially fatal consequences of these conditions.

There was considerable variability in the scores for initiating and maintaining treatment. The fewest respondents reported that they would initiate treatment for *Pulmonary Embolism* (12%) and *Postanesthesia Complications* (e.g., *spinal headache*) (14%). Conditions with the highest number of affirmative responses for initiating treatment include *Mastitis/Postpartum Breast Infection* (98%) and *Urinary Tract Infection* (97%). Among the respondents who reported that they initiated treatment for one of the 16 postpartum conditions, over 90% indicated they were likely to independently initiate treatment for *Urinary Tract Infection* (94%) and *Mastitis/Postpartum Breast Infection* (91%), while only 12% indicated they would independently initiate treatment for *Pulmonary Embolism*, 16% for *Deep Vein Thrombosis or Postpartum Thrombophlebitis*, and 17% for *Postpartum Eclampsia*. These percentages, though relatively low, support the trend of midwives caring for increasingly more complex patients with abnormal conditions.

Between six and 75% of the respondents maintained treatment for each of the 16 selected postpartum conditions. Respondents were most likely to maintain treatment for *Urinary Tract Infection (UTI)* (75%) and *Mastitis/Postpartum Breast Infection* (74%). Of these, 90% reported that they would initiate treatment independently for UTI and 81% would initiate treatment independently for *Mastitis/Postpartum Breast Infection*. This is likely because treatment regimens for urinary tract infection and postpartum breast infections are generally uncomplicated

and are often treated with or without antibiotics (Paladine et al., 2019). Less than 20% of respondents reported that they would maintain care for more complicated conditions, specifically patients with *Abdominal Wound Infection and/or Dehiscence* (19%), *Deep Vein Thrombosis (DVT) or Postpartum Thrombophlebitis* (15%), *Postanesthesia Complications (e.g., spinal headache)* (7%), *Postpartum Thyroiditis* (17%), and *Pulmonary Embolism* (6%).

Respondents indicated that they would refer patients with *Pulmonary Embolism* (95%) and *Deep Vein Thrombosis or Postpartum Thrombophlebitis* (88%) most often and would refer *Urinary Tract Infection* (8%) and *Mastitis/Postpartum Breast Infection* (13%) least often.

Postpartum Comments.

There were five comments related to postpartum tasks. Two of the respondents commented on the limitation of their provision of newborn care during the postpartum period. One indicated the availability of a separate health care team dedicated to the care of the newborn, and the other indicated that breastfeeding support was provided by lactation counselors. One respondent noted that they held other certifications (FNP), while another noted they were a faculty member and did not personally perform the noted tasks. The final comment referred to a typographical error in one of the survey items.

There were four comments about postpartum conditions. One respondent noted the importance of identifying serious postpartum conditions and knowing when to send the patient to the Emergency Department. Another respondent noted their group practice's philosophy of initiating and maintaining care while the condition improves but utilizing consultation or referral should there be an inadequate amount of improvement. One respondent responded that their patient population does not receive anesthesia, therefore the issue of anesthesia complications is not relevant to her. The final comment was made by a respondent who noted that the tasks aren't applicable due to their scope of practice as an educator.

Newborn Care

Clinical Tasks.

Newborn tasks consisted of 23 items (Table 11) that were embedded within the intrapartum and postpartum sections of the survey. Interestingly, while only 97 respondents initially identified themselves as providing newborn care, between 260 and 312 responded to the embedded newborn task items on the survey. This may indicate that respondents don't see themselves as newborn care providers when providing newborn care alongside intrapartum or postpartum tasks. This indicates a need to more clearly identify the newborn tasks performed by midwives to expand their perception of their personal practice to include caring for the newborn.

The newborn tasks receiving the highest mean frequency scores were most likely to occur during the immediate postpartum and first days of the newborn's life. The most frequently performed newborn task was *Examining the cord for umbilical vessels* (4.8). Other frequently performed tasks included a mixture of procedures and health promotion activities. For example, the second most frequently occurring task was *Educating the mother about caring for a newborn during the early postpartum period* (3.8), with *Collecting cord blood* (3.7) occurring at a similar frequency. Newborn tasks least frequently performed were *Managing newborn phototherapy* (1.1) and *Providing primary care of the newborn from discharge from the birth location through 28 days of life* (1.5).

No newborn task received an importance score ≥ 4.0 . The newborn task with the highest mean importance score was *Providing education about breastfeeding* (3.8) followed by *Examines cord for blood vessels* (3.7) and *Promotes a healthy environment for maternal-infant interaction from birth to discharge from the birthing location* (3.7). Items scoring lowest in importance were *Manages the infant who requires phototherapy* (2.5) and *Providing primary care of the newborn from discharge from the birth location through 28 days of life* (2.6).

Tasks with the highest unweighted mean composite scores included *Educates about breastfeeding* (8.5), *Examining cord for umbilical vessels* (8.4), and *Promotes a healthy environment for maternal-infant interaction from birth to discharge from the birthing location*

(8.2). Those tasks having the lowest unweighted mean composite scores were *Managing the infant who requires phototherapy* (3.7) and *Provides primary care of the infant from discharge from the birthing location through 28 days of life* (4.2). These scores were similar to those reported in the 2017 Task Analysis. *Managing the infant who requires phototherapy* was recommended to the AMCB Board of Directors for consideration of removal from the certification exam blueprint and was subsequently removed by the Board.

Clinical Conditions.

There were no newborn conditions included in the survey.

Newborn Comments.

Newborn comments were integrated with comments made in the intrapartum section of the survey. No newborn comments were provided about the items integrated in the postpartum section. This may indicate that the majority of newborn care midwives provide occurs immediately after birth. Respondents clarified which aspects of newborn care they provided and gave additional information about their workplace environment and newborn resources. They also provided additional details about how they perform the newborn tasks presented in the survey.

Well Woman/Gynecological Care

Clinical Tasks.

Well Woman/Gynecological tasks included 49 items contained within the general midwifery section received by all survey respondents (Table 13). Most respondents ($n = 362$, 94.5%) indicated that they provided well woman/gynecological care (Table 12).

The highest calculated mean frequency scores were reported for counseling regarding sexual/reproductive health and cancer screening (*Performs a complete pelvic exam including bimanual and speculum exams* [4.7], *Determines need to obtain Papanicolaou (pap/cervical cytology) test based on current guidelines* [4.7], *Obtains Papanicolaou (pap/cervical cytology) test* [4.6], *Counsels about breast self-awareness* [4.6]); assessing for sexually transmitted

infections and providing contraceptive services (*Assesses for and treats sexually transmitted infections (STIs) based on current guidelines* [4.6], *Counsels about the importance of early recognition, screening, and treatment of sexually transmitted infections (STIs)* [4.5], *Screens for indications and contraindications for various contraceptive methods with history, physical examination and laboratory data* [4.5], *Provides contraceptive services* [4.6]); and addressing common GYN health concerns (*Diagnoses vaginitis (e.g., candida, bacterial vaginosis)* [4.5], *Prescribes pharmaceuticals and/or alternative therapies to treat vaginitis* [4.5]).

Low-frequency tasks were those related to ectopic pregnancy (*Expectantly manages or co-manages ectopic pregnancy* [1.9], *Medically manages or co-manages ectopic pregnancy (e.g., methotrexate)* [1.6]); elective termination of pregnancy (*Prescribes medication to electively terminate pregnancy* [1.2]); and specific clinical procedures (*Provides paracervical block in the outpatient setting* [1.1], *Treats condyloma using chemical methods and/or cryotherapy* [1.9], *Performs vulvar biopsy* [1.4], *Performs endometrial biopsy* [1.7], *First assists with gynecological (GYN) surgery* [1.1]).

All mean importance scores were ≥ 3.0 except for *Provides paracervical block in the outpatient setting* (2.2), *Provides guidance and counseling for the prevention and recognition of toxic shock syndrome* (2.9), *Treats condyloma using chemical methods and/or cryotherapy* (2.9), and *First assists with gynecological (GYN) surgery* (2.3). Scores ranged from a low of 2.2 (*Provides paracervical block in the outpatient setting*) to a high of 3.9 (*Determines need to obtain Papanicolaou (pap/cervical cytology) test based on current guidelines*). These tasks largely represent specific clinical procedures and warrant continued longitudinal monitoring to provide additional information about the evolution midwifery practice.

Respondents gave several of the tasks they perform infrequently higher importance scores, specifically *Medically manages or co-manages ectopic pregnancy (e.g., methotrexate)* (1.6 frequency and 3.2 importance), *Provides counseling and support following sexual assault* (2.2 frequency and 3.7 importance), *Performs vulvar biopsy* (1.4 frequency and 3.0 importance), and *Prescribes medication to electively terminate pregnancy* (1.2 frequency and 3.0 importance).

This may be because the population surveyed had been certified within the past 4 years and had not had the opportunity to perform these skills, or have limitations imposed by their practice setting.

Calculation of the unweighted mean composite scores for well woman/gynecological tasks revealed six tasks that were scored below the cut-point of 5.0: *Provides paracervical block in the outpatient setting* (3.3), *Performs vulvar biopsy* (4.4), *Performs endometrial biopsy* (4.7), *First assists with gynecological (GYN) surgery* (3.4), *Prescribes medication to electively terminate pregnancy* (4.3), and *Medically manages or co-manages ectopic pregnancy (e.g., methotrexate)* (4.8). These tasks were considered by the Research Committee for recommendation to the Board of Directors for elimination from the certification exam. The committee decided to recommend the removal of *Provides paracervical block in the outpatient setting* (3.3), *First assists with gynecological (GYN) surgery* (3.4), and *Performs vulvar biopsy* (4.4). This decision was based upon the items' current and past task analysis survey performance and because these specific clinical procedures are frequently performed by gynecological specialists. While some midwives perform these tasks, they do so infrequently. The AMCB Board of Directors agreed with the recommendation and subsequently removed these items.

Well Woman/Gynecological Comments.

Respondents provided 32 comments about general midwifery tasks in the Well Woman/Gynecology section of the survey (See Table 14). The effect of limitations placed on respondents' practice due to external factors were evident. Respondents commented that although they are clinically trained or would like to perform certain tasks (e.g., endometrial biopsies, hormones for people of trans experience), there is often no opportunity to do so because of easy access to other providers and/or referral sources.

More than one respondent noted their employer or practice setting influenced which tasks they perform (e.g., working in a birth center or infertility clinic, state practice act limitations, providing GYN care only). In 2010, the Institute of Medicine published a report that indicated nurses should practice to the full extent of their education (IOM, 2010). Respondents' comments

indicate that limitations on practice continue to be problematic. One respondent noted that some tasks were out of ACNM's core competencies and hospital privileges, although this respondent did not specify which tasks they were referring to. Additional comments in this section reflected respondents' lack of understanding about scoring the importance of tasks and other comments about the survey.

Contraceptive Services.

All respondents were asked four questions about contraceptive services. Those who indicated they provided contraceptive services were asked additional questions about their contraceptive practice. Respondent scores were highest for *Provides contraceptive services* (4.6 frequency, 3.9 importance) followed closely by *Screens for indications and contraindications for various contraceptive methods with history, physical examination and laboratory data* (4.5 frequency, 3.9 importance), *Counsels about and recommends the use of non-prescription forms of contraception (e.g., condoms, contraceptive gel, film, foams, etc.)* (4.5 frequency, 3.7 importance), and *Counsels about the use of Fertility Awareness Methods (e.g., Billings, rhythm, symptothermal and lactational amenorrhea)* (4.2 frequency, 3.6 importance) (See Table 13).

Figure 7 provides more detailed responses about contraceptive management provided by participants who indicated that they provide contraceptive services. A high percentage of respondents (94% to 96%) indicated that they counsel patients about hormonal methods (combined hormonal contraceptives, Depo-Provera (DMPA), and Progestin-only Contraceptive Pills) and long-acting reversible contraceptive methods (LARC) (Implants and IUDs). Slightly fewer respondents counsel about permanent contraceptive methods (tubal ligation) (81%) and emergency contraception (87%). Interestingly, considerably fewer respondents counsel about cervical cap (41%) and Diaphragm (65%). These two methods were also the methods with the most missing data (56% and 28%, respectively) while the other methods had 0 to 8% missing data. 90 to 97% of respondents reported initiating management for hormonal methods and LARC, while 42% initiated diaphragm use and only 13% initiated cervical cap methods. 72% of respondents reported initiating emergency contraception. These results are not surprising, as oral contraceptives are the most frequently used contraceptive method in the US and LARC methods

are the most effective, and cervical caps are among the least effective methods- especially in the multiparous woman (Kendall & Lebari, 2019; Teal & Edelman, 2021).

There were nineteen comments related to contraceptive methods. Respondents noted that contraceptive gels (e.g., Phexxi) and spermicides should be included as well as counseling regarding partner vasectomies. Respondents also commented regarding the lack of fertility awareness methods and condoms in the contraceptives table and that they regularly counsel regarding these methods. Note that the nine methods selected require prescription, placement, or fitting. Contraceptive methods that do not require these additional steps were asked about as stand-alone tasks outside of the table.

Primary Care

Clinical Tasks.

Primary care tasks included 13 items contained within the General Midwifery section received by all respondents (Table 17). Just over half of the respondents ($n = 217$, 56.7%) indicated that they provide primary care (See Appendix J, Table 19). This is an increase from past task analyses, when in the 2012 Task Analysis 46% of respondents indicated they provided primary care and in the 2017 Task Analysis only 32% indicated that they provide primary care (AMCB, 2012; AMCB, 2017). This increase in midwives indicating that they provide primary care may be reflective of several influencing factors. In the 2022 Task Analysis, all midwives were presented with the primary care tasks contained within the General Midwifery section of the survey as the Research Committee acknowledges that many of these skills are foundational to midwifery practice. In previous task analyses, midwives were only presented with the primary care tasks if they self-indicated that they provided primary care as a distinct practice domain. The current methodology captured respondents who perform primary care tasks but may not think of themselves as primary care providers. This may indicate a misunderstanding among newly practicing midwives about what tasks are in the primary care domain.

Other factors that may have contributed to the increased number of respondents providing primary care services is an actual increase in CNMs/CMs providing primary care and a shift in

providing midwifery services into more primary care and community settings (Stucky et al., 2020; Jacobsen et al., 2022). Finally, the need for services during the COVID-19 pandemic may have resulted in clinical situations requiring midwives to practice to the full extent of their knowledge and training (Stucky et al., 2020).

The highest calculated mean frequency scores were reported for *Applies concepts of informed consent, informed refusal, and shared decision-making in patient encounters* (5.0); *Creates a management plan based on subjective and objective data (e.g., ordering diagnostic imaging and lab work and initiating treatment as indicated)* (5.0); and *Takes a comprehensive health history* (4.9). This is not surprising as the first task is foundational to the practice of midwifery and the second and third are essential skills for virtually all midwifery patient encounters (ACNM, 2022; ACNM 2020). The two tasks rated lowest for frequency were *Sutures minor wounds (not including perineal/vaginal/vulvar lacerations)* (2.1) and *Prescribes medication for smoking cessation.* (2.0).

In the Primary Care domain, importance scores ranged from a low of 2.7 (*Sutures minor wounds [not including perineal/vaginal/vulvar lacerations]*) to a high of 4.0 (*Applies concepts of informed consent, informed refusal, and shared decision-making in patient encounters*). Most items had an unweighted mean composite score of ≥ 8.0 . Only one task scored below the cut point of 5.0: *Sutures minor wounds (not including perineal/vaginal/vulvar lacerations)* (4.8). Review of these tasks by Research Committee members resulted in a recommendation to the AMCB Board of Directors to consider eliminating *Sutures minor wounds (not including perineal/vaginal/vulvar lacerations)* from the certification exam blueprint. Suturing outside of perineal/vaginal/vulvar lacerations is not within midwifery scope of practice, and this task has consistently ranked low in past task analyses. The Board subsequently agreed with this recommendation and the item was removed from the certification exam blueprint.

Clinical Conditions.

Clinical conditions were categorized into chronic ($n = 10$), acute ($n = 5$), and mental health conditions ($n = 7$).

Chronic Conditions.

Many respondents reported screening for all 10 of the chronic conditions ranging from a low of 66% of respondents reporting that they screen for asthma to a high of 92% of respondents reporting that they screen for thyroid disorders (Fig. 8). Most conditions were referred to other providers for management, with 50% of respondents referring for Polycystic ovarian syndrome (PCOS)/metabolic syndrome to 84% of respondents referring for diabetes. Only 14% of respondents initiated treatment for hyperlipidemia, and approximately half of these initiated treatment independently and half through collaboration or consultation. 69% of respondents initiated treatment for Polycystic ovarian syndrome (PCOS) and/or metabolic syndrome- 66% of these initiated treatment independently and 33% initiated treatment through a collaboration/consultation process. 64% of respondents report maintaining independent management of PCOS/metabolic syndrome and 24% of respondents report maintaining independent management of hyperlipidemia. Although these findings only report the practice of this sample of midwives, they beg the question whether increasing numbers of all midwives are managing more primary care conditions due to the demand for primary care services, especially in underserved areas (AAMC, 2020).

Acute Conditions.

Over 95% of respondents reported screening for anemia and urinary tract infections (UTIs), while less than 60% reported screening for Upper Respiratory Tract infections (URI) and gastritis. 98% of midwives initiated treatment for UTIs and 70% maintained treatment, almost all of whom initiated and maintained treatment independently. Of the five acute conditions, the fewest respondents initiated and maintained treatment for otitis externa/otitis media (35% initiated and 12% maintained) and gastritis (27% initiated and 14% maintained). Interestingly, the number of respondents who indicated they initiated and/or maintained treatment of these acute conditions varied widely but of those who did, the majority initiated and/or maintained management independently.

Mental Health Conditions.

Over half of respondent midwives reported screening for six of the seven mental health conditions, while only 35% of respondents reported screening for Attention Deficit Hyperactivity Disorder (ADD/ADHD) (See Figures 12 and 13). Anxiety and depressive disorders were the most frequently screened for mental health conditions, with 92% of respondents screening for each. Interestingly, although many respondents screened, initiated, and maintained treatment for anxiety and depression, only 55% reported screening for bipolar disorder. This is a potentially concerning finding as it is important to rule out bipolar disorder symptoms prior to initiating treatment for unipolar depression (O'Donovan et al., 2020).

Most respondents who initiated and maintained treatment for these mental health conditions did so independently, and many indicated that they refer most mental health conditions to other providers for management. PMS/PMDD is a notable departure from this pattern, as only 38% of respondents report referring for this condition while referral for all other conditions ranged from 66% (depressive disorders) to 90% (eating disorders). These findings support the conclusions of a recent scoping review of midwifery management of perinatal mental health conditions by Coats & Foureur (2019) which found that while midwives have an interest in caring for women with mental health conditions, they lack the confidence, knowledge, and training to do so.

These responses support maintaining focus on primary care in midwifery education programs, as midwives commonly encounter primary care conditions within the first 4 years of practice. There continues to be a need for access to cost-effective primary healthcare services and a shift from treatment and management to prevention, which midwives are well-positioned to provide (Phillippi & Barger, 2015). It is clear from the clinical condition results of this survey that CNMs/CMs new to practice care for women with a variety of clinical conditions that are not consistent with the “normal” or low-risk health care of women traditionally associated with CNM/CM care. In general, respondents are likely to independently manage an increasing number of conditions that are common among women of reproductive age. However, newly certified

midwives also collaboratively manage a wide range of complications, thus requiring knowledge and experience with the management of more complex conditions.

Primary Care Comments.

The 19 comments regarding chronic conditions indicated a need to clarify that these conditions pertain to the non-pregnant population (and should not be confused with pregnancy-specific conditions such as gestational diabetes, perinatal mood, anxiety disorders, etc.). Comments suggested clarifying what constitutes “management” (i.e., medication, counseling, lifestyle changes, etc.), and including non-pharmacological management along with pharmacological management and surgical intervention. Respondents stated that their level of management differed depending on the severity of the condition, and that it was difficult to respond to conditions without taking the complexity of the situation into account. Those who held dual certifications (e.g., FNPs) commented on their expanded scope which could confound the findings.

Seven comments regarding acute conditions included suggestions that conditions should be expanded to identify nuance/severity and to differentiate management approaches. For example, there should be a difference between severity or types of anemia, as thalassemia is referred on or managed collaboratively, but iron-deficiency anemia is managed independently. This supports the comments in the chronic conditions section that respondents had difficulty distinguishing between these primary care conditions and similar conditions occurring during the perinatal period.

Finally, in the seven comments pertaining to common mental health conditions, respondents commented that addressing mental health is a significant component of midwifery, and they emphasized the importance of having the knowledge and resources to treat mental health, especially anxiety and depression. One respondent noted that they are working in rural/underserved areas where access to mental health care is limited, so more education about these topics is important to them. Additional comments regarding mental health were also mentioned in the General Midwifery comments section. Overall, this is significant, as addressing

mental health concerns is a growing aspect of midwifery care (Kendig et al., 2017; Wang et al., 2021).

Participant Suggestions for Tasks on Future Task Analyses

Forty-seven respondents submitted comments when asked about suggestions for tasks to be included in future task analyses. The majority of topics suggested were already included in the task analysis and, as one respondent confirmed, may have been listed here because the respondent didn't remember seeing the task previously on the survey. Some respondents commented that they would recommend asking about employment or business-related information (e.g., annual salary, business questions, clinical hours and experience, precepting, education, work-life balance). This information would be interesting and pertinent to collect in a more comprehensive job analysis with expanded purpose and aims.

Some respondents indicated that this was a comprehensive survey and they had nothing more to add while others suggested multiple additions. Suggested additions included adding specific well woman/gynecologic tasks and conditions (e.g., HRT, gender-affirming care, pessary counseling/fitting, caring for adolescent/teen populations, and hysteroscopy, ovarian cysts, uterine fibroids, vulvar abscesses, reproductive endocrinology, natural family planning, infertility, and menopause) and adding specific primary care tasks and conditions (e.g., hysteroscopy, skin biopsies, wound incision and drainage, outreach care, and trauma-informed care).

Few comments were made for antepartum, intrapartum, or postpartum tasks and conditions and many of the suggestions included items already found on the current task analysis. Suggestions for novel topics included specific antepartum skills (e.g., pregnancy and birth complications, perineal/third degree laceration repair, electronic fetal monitoring and standard nomenclature, preterm premature rupture of membranes (PPROM), collaboration with community providers to facilitating ease of transfer, vaginal birth after cesarean (VBAC), and methods to induce labor). A few respondents commented that they felt that their well woman/

gynecological and primary care skills were not as strong as they needed to be when they graduated from their midwifery education programs

Limitations

This task analysis had several important limitations. First, the overall response rate was 16.3%, which was lower than that of both the 2012 (34.0%) and 2017 (25.4%) Task Analysis Surveys, thus raising questions about response bias and generalizability. Potential causes include overall low response rates to electronic surveys, ineffective recruitment strategies, and the current societal circumstances related to the COVID pandemic (Grandstaff & Webber, 2021).

Response rates for online surveys have been steadily declining for the last several years (Stedman et al., 2019). Response rates may have been impacted by failure to receive emailed invitations due to screening by spam filters. We also opted to send out a general URL that allowed for easier access and was more easily managed by the Task Analysis Project Manager instead of tethering the survey to individual email addresses which would have allowed for more information regarding whether the survey was received and opened. This left us unable to determine the characteristics of, and to follow-up with, non-responders. Failure to follow-up on non-respondents is a potential source of study error and is important for accurately interpreting survey findings (Davern, 2013).

Should future invitations for participation in task analysis surveys be sent via email invitation, it will be important to consider improved distribution strategies to allow for better understanding of the characteristics of the sample and more accurate interpretation of the findings. Additionally, using multimodal recruitment strategies (e.g., email and/or mailed options, telephone recruitment, or social media) have been demonstrated to enhance survey response rates (Dillman, 2014). If an email survey is utilized in future task analyses, investment in targeted stratified random sampling should be considered to ensure a sample that is reflective of the full early-career CNM/CM workforce. Notably, this analysis was conducted in the fall of 2021 during the Delta variant surge of the COVID-19 pandemic. The associated increased workload of healthcare providers, and of women in general, may have contributed to the lower response rate (US Bureau of Labor Statistics, 2022).

Another limitation of this and previous task analysis surveys was the length of the survey, which required approximately 1 hour of respondent's time to fully complete (See Appendix J Table 33 and Figure 5). One hundred and three respondents started the survey but did not fully complete it, with varying degrees of missing data. This is consistent with literature demonstrating higher non-completion rates for longer surveys (Kost & de Rosa, 2018).

A final limitation of this task analysis survey was the use of a retrospective cross-sectional survey design. While retrospective cohort studies are less costly and shorter than prospective cohort design studies, they are susceptible to recall bias (Song & Chung, 2010). A potential solution to this problem is implementation of a prospective design to gain accurate, real-time data. This design could apply electronic tracking of daily activities; examination of medical service codes (e.g., ICD-10-CM, ICD-10-PCS, HCPCS, and Level I HCPCS:CPT); and/or time-motion study methods. Use of prospective, real-time data would likely provide more accurate data about the tasks performed and care provided by newly CNMs/CMs (Sonenberg, 2010).

Recommendations

To increase the representativeness and response rate of the task analysis, we recommend that the AMCB require all certificants to complete the task analysis at the time of their first re-certification cycle (i.e., 5 years after their initial certification). In such a rolling data collection, survey items will be reviewed on a 5-year cycle by the AMCB Research Committee. Data will be analyzed and reported every 5 years. By surveying the complete population, the task analysis will more accurately reflect the full breadth of early-career midwifery practice. Population level data will allow for analysis of variation of practice by key variables such as practice setting, geography, and regulatory environment. Additionally, this will narrow the sample to people who have been in practice for a uniform 5 years, in contrast to the current method, which has variation in the duration of time in practice that can directly affect the variable of interest (i.e., scope of midwifery practice). Mandatory, on-going data collection will address the majority of limitations listed above. Recall bias will continue to be a limitation of this proposed data collection method, but we believe that recall bias poses the least threat to the accuracy and validity of the task analysis.

To improve clarity and accuracy of the clinical conditions sections, we suggest considering clarifying the complexity of the conditions so respondents can more easily distinguish between level of situational risk. We also recommend reviewing the “check all that apply” approach, as this makes data analysis more difficult and yields less accurate and precise results.

We recommend test specifications be set so that no domain of practice drops below 10% of the total certification exam items on the exam blueprint. It would be useful to look at recommendations for question distribution amongst the domains from a more longitudinal perspective and to consider this data when making recommendations to the AMCB Board of Directors for consideration of removal.

We recommend that the Research Committee continue to survey respondents about tasks and conditions that appear to be increasing in clinical practice as exploratory items. This will

allow the committee to have a quantitative measurement whether a task or condition is becoming integrated into clinical midwifery practice enough that it should be a regular task or condition on the Task Analysis survey.

Summary

The primary purpose of this task analysis was to identify clinical tasks and conditions performed by newly certified CNMs/ CMs to inform the design of the AMCB Certification Exam. This process ensures that AMCB is meeting its mission to protect and serve the public and to set the certification standard in midwifery and ensures compliance with NCCA accreditation requirements

Tasks analysis results are used to update how questions are weighted across midwifery practice domains on the certification exam (test specification weights). This regular evaluation and updating results in the distribution of certification exam items that address the knowledge and skills related to critical clinical tasks that are consistent with the clinical practice of new certificants. Data are also used to inform the weighting of normal vs. abnormal conditions to ensure that the included tasks and conditions are at the correct level of specificity for newly certified CNMs/CMs.

The 2022 Task Analysis surveyed CNMs/CM certified by the AMCB between January 2018 and September 2021. Topics covered included demographics, and clinical practice tasks and conditions across the six midwifery practice domains, as well as eliciting respondents' opinions about AMCB's certification and recertification requirements. The survey was administered online and had an overall response rate of 23.4% and a usable response rate of 16.3% and included the six domains of midwifery practice. Additionally, respondent recommendations were sought for how the certification exam should be weighted across the six midwifery practice domains and for the balance of normal vs. abnormal conditions cared for in clinical practice.

Findings from the survey provided evidence for recommendations to be made to the AMCB Board of Directors for specific items to be considered for elimination from the certification exam blueprint. The AMCB Research Committee recommended that the AMCB Board of Directors consider removing seven tasks from the exam blueprint. The Board of

Directors subsequently decided to accept the Committee’s recommendations and remove those items from the certification exam blueprint.

Test specifications for five of the six areas of midwifery practice should also be reconsidered, with an increase in intrapartum, newborn, and primary care items and fewer items focused on antepartum and well woman/GYN care. Changes should be conservative given the influence of the concurrent COVID-19 pandemic. Additionally, data from this research suggest the need to reconsider the weighting of normal and abnormal conditions, with an increase in the latter.

The data from this survey have illuminated several opportunities to improve future task analyses. First and foremost, requiring the task analysis for first-time certificants will ensure an improved response rate. Other recommendations include reviewing opportunities and challenges with the question and survey format and updating the survey instructions for clarity,.

The mission of the AMCB is to protect and serve the public by assuring that individuals who are credentialed as CNMs and CMs have met established standards (AMCB, n.d.). Central to that mission is developing and administering a certification exam that determines whether CNMs/CMs have attained the knowledge necessary for safe and effective entry-level midwifery practice. Results from this task analysis provide data that are crucial to meeting this mission.

References

- American Association of Colleges of Nursing. (2014). *AACN position statement on the practice Doctorate in Nursing*. Retrieved Feb 17, 2022, from <https://www.aacnnursing.org/DNP/Position-Statement>
- American College of Nurse Midwives [ACMM]. (2020). *ACNM Strategic Plan 2021-2024*. Retrieved from <https://www.midwife.org/acnm/files/cclibraryfiles/filename/000000008086/ACNM%202021-24%20Strategic%20Plan%20Updated%2011.17.2020.pdf>
- American College of Nurse Midwives [ACMM]. (2020). *Definition of Midwifery and Scope of Practice of Certified Nurse Midwives and Certified Midwives*. Retrieved from https://www.midwife.org/acnm/files/acnmlibrarydata/uploadfilename/000000000266/Definition%20Midwifery%20Scope%20of%20Practice_2021.pdf
- American College of Nurse Midwives [ACNM] (2014). *Collaborative Management in Midwifery Practice for Medical, Gynecologic and Obstetric Conditions*. Retrieved from: <https://www.midwife.org/acnm/files/ACNMLibraryData/UPLOADFILENAME/000000000058/Collaborative-Mgmt-in-Midwifery-Practice-Sept-2014.pdf>
- American College of Nurse Midwives [ACNM]. (n.d.). *Hospital Credentialing and Privileging*. Retrieved December 27, 2022 <https://www.midwife.org/Hospital-Credentialing-and-Privileging>
- American College of Nurse Midwives [ACNM]. (2020). *ACNM Core Competencies for Basic Midwifery Practice*. Retrieved from: https://www.midwife.org/acnm/files/acnmlibrarydata/uploadfilename/000000000050/ACNMCORECompetenciesMar2020_final.pdf
- American College of Nurse-Midwives [ACNM] (2022). *Position Statement: Shared Decision-Making in Patient Care*. Retrieved from: https://www.midwife.org/acnm/files/acnmlibrarydata/uploadfilename/000000000305/2022_PS-Shared-Decision-Making-in-Midwifery-Care.pdf
- American College of Obstetricians and Gynecologists; Society for Maternal-Fetal Medicine, Caughey, A. B., Cahill, A. G., Guise, J. M., & Rouse, D. J [ACOG]. (2014). Safe prevention of the primary cesarean delivery. *American Journal of Obstetrics and Gynecology*, 210(3), 179–913. doi: 10.1016/j.ajog.2014.01.026. PMID: 24565430.
- American College of Obstetricians and Gynecologists Committee on Obstetric Practice [ACOG]. (2016). Committee opinion No. 670: immediate postpartum long-acting reversible

contraception. *Obstetrics & Gynecology*, 128 (2). e32-e37.
doi:10.1097/AOG.0000000000001587

American Midwifery Certification Board [AMCB]. (n.d.a). *American Midwifery Certification Board*. Retrieved from: <http://www.amcbmidwife.org/>

American Midwifery Certification Board [AMCB]. (n.d.b). *AMCB Committees*. Retrieved from: <https://www.amcbmidwife.org/about-amcb/amcb-committees>

American Midwifery Certification Board [AMCB]. (2012). *AMCB 2012 Task Analysis*. Retrieved from <https://www.amcbmidwife.org/about-amcb/task-analysis>

American Midwifery Certification Board [AMCB]. (2017). *AMCB 2017 Task Analysis*. Retrieved from <https://www.amcbmidwife.org/about-amcb/task-analysis>

American Midwifery Certification Board [AMCB]. (2021). *Demographics report*. Retrieved from: https://www.amcbmidwife.org/docs/default-source/reports/demographic-report-2021.pdf?sfvrsn=cac0b1e8_2

American Midwifery Certification Board [AMCB]. (2022). *AMCB Certification Exam Candidate Handbook Nurse Midwifery and Midwifery*. Retrieved from: <https://www.amcbmidwife.org/amcb-certification/candidate-handbook>

Association of American Medical Colleges. (2020). *The Complexities of Physician Supply and Demand: Projections from 2018 to 2033*. Retrieved from <https://www.aamc.org/system/files/2020-06/stratcomm-aamc-physician-workforce-projections-june-2020.pdf>

Averbach, S. H., Ermias, Y., Jeng, G., Curtis, K.M., Whiteman, M. K., Berry-Bibee, E., Jamieson, D. J., Marchbanks, P. A., Tepper, N. K., & Jatlaoui, T. C. (2020). Expulsion of intrauterine devices after postpartum placement by timing of placement, delivery type, and intrauterine device type: A systematic review and meta-analysis. *American Journal of Obstetrics and Gynecology*, 223(2), 177–188. doi: 10.1016/j.ajog.2020.02.045.

Averbach SH, Ermias Y, Jeng G, et al. Expulsion of intrauterine devices after postpartum placement by timing of placement, delivery type, and intrauterine device type: a systematic review and meta-analysis. *Am J Obstet Gynecol*. 2020;223(2):177-188. doi:[10.1016/j.ajog.2020.02.045](https://doi.org/10.1016/j.ajog.2020.02.045)

Buultjens, M., Farouque, A., Karimi, L, Whitby, L, Milgrom, J., & Erbas, B. (2021). The contribution of group prenatal care to maternal psychological health outcomes: A systematic review. *Women and Birth*, 34(6). e631-e642.

- Coates, D., & Foureur, M. (2018). The role and competence of midwives in supporting women with mental health concerns during the perinatal period: A scoping review. *Health and Social Care in the Community*, 27(4). E389-e405. <https://doi.org/10.1111/hsc.12740>
- Daniels, K., & Abma, J. C. (2020). *Current contraceptive status among women aged 15–49: United States, 2017–2019*. NCHS Data Brief, no 388. National, Center for Health Statistics.
- Davern, M. (2013). Nonresponse rates are a problematic indicator of nonresponse bias in survey research. *Health Services Research*, 48(3), 905–912. doi: 10.1111/1475-6773.12070.
- Dillman, D.A., Smyth, J. D., & Christian, L. M. (2014). *Internet, phone, mail, and mixed-mode surveys: The tailored design method*. 4th Ed. John Wiley & Sons.
- Glazer, K. B., Zeitlin, J., Egorova, N. N., Janevic, T., Balbierz, A., Hebert, P. L., & Howell, E. A. (2021). Hospital quality of care and racial and ethnic disparities in unexpected newborn complications. *Pediatrics*, 148(3).
- Grandstaff, M. & K.L. Webber. “Survey Research during COVID-19: The Challenges Grow Even Larger” (2021). *IHE Research Projects Series 2021-001*. Available at: https://ihe.uga.edu/rps/2021_001
- Greenwood, B. N., Hardeman, R. R., Huang, L., & Sojourner, A. (2020). Physician-patient racial concordance and disparities in birthing mortality for newborns. *Proceedings of the National Academy of Sciences*, 117(35), 21194–21200.
- Gregory, E. C., Osterman, M. J., & Valenzuela, C. P. (2021). Changes in home births by race and Hispanic origin and state of residence of mother: United States, 2018–2019 and 2019–2020. *National Vital Statistics Reports: From the Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System*, 70(15), 1–10.
- Harris, P.A., Taylor, R., Thielke, R., Payne, J., Gonzalez, N., & Conde, J.G. (2009). Research electronic data capture (REDCAP) – A metadata-driven methodology and workflow process for providing translational research informatics support. *Journal of Biomedical Informatics*, 42(2). 377-381.
- Heberlein, E. C., Smith, J. C., LaBoy, A., Britt, J., & Crockett, A. (2021). Birth Outcomes for Medically High-Risk Pregnancies: Comparing Group to Individual Prenatal Care. *American Journal of Perinatology*, 10.1055/a-1682-2704. Advance online publication. <https://doi.org/10.1055/a-1682-2704>.

- Jacobsen, K. E., Katon, J. G., & Kantrowitz-Gordon, I. (2022). Midwifery in the Time of COVID-19: An Exploratory Study from the Perspectives of Community Midwives. *Women's health issues: Official publication of the Jacobs Institute of Women's Health*, 32(6), 564–570. <https://doi.org/10.1016/j.whi.2022.06.009>
- Kendall E, & Lebari D. (2019). Barrier contraception methods. *InnovAiT*, 12(6). 332-337. doi:[10.1177/1755738019831722](https://doi.org/10.1177/1755738019831722)
- Kendig, S., Keats, J. P., Hoffman, C., Kay, L. B., Miller, E. S., Moore Simas, T. A., Friedler, A., Hackley, B., Indman, P., Raines, C., Semenuk, K., Wisner, K. L., & Lemieux, L. A. (2017). Consensus bundle on maternal mental health: Perinatal depression and anxiety. *Journal of Midwifery & Women's Health*, 66(2), 232–239. <https://doi.org/10.1111/jmwh.12603>
- Kost, R. G., & da Rosa, J. C. (2018). Impact of survey length and compensation on validity, reliability, and sample characteristics for Ultrashort-, Short-, and Long-Research Participant Perception Surveys. *Journal of Clinical and Translational Science*, 2(1), 31–37.
- Mancuso, M., Caudle, P., Rosen, G., & Bawden, H. (2007). *Transition to Computer-based Testing: The Computerization of the AMCB Certification Examination*. Retrieved July 15, 2022 from: https://www.amcbmidwife.org/docs/default-source/national-board-exam/transition-to-computer-based-testing.pdf?sfvrsn=666c66c0_2
- Marangoni, M. Jr., Laporte, M., Surita, F., Kraft, M. B., Bahamondes, L., & Juliato, C. R. T. (2021). One-year follow up on post-placental IUD insertion: A randomized clinical trial. *Acta Obstetrica Gynecologica Scandinavica*, 100(4), 596–603. doi: 10.1111/aogs.14081. Epub 2021 Mar 16. PMID: 33421091.
- Mattison, C. A., Dion, M. L., Lavis, J. N., Hutton, E. K., & Wilson, M. G. (2018). Midwifery and obstetrics: Factors influencing mothers' satisfaction with the birth experience. *Birth*, 45(3), 322–327.
- Institute for Credentialing Excellence [ICE]. (2014). *National Commission for Certifying Agencies Standards for the Accreditation of Certification Programs*. Retrieved from https://www.credentialingexcellence.org/Portals/0/NCCA Standards 2021 DRAFT REVISIONS_July 2021.docx
- National Institute for Health and Care Excellence [NICE]. (2021, Mar.). *NICE Guideline: Cesarean Birth* (NG 192). Retrieved from <https://www.nice.org.uk/guidance/ng192>.
- O'Donovan, C., & Alda, M. (2020). Depression Preceding Diagnosis of Bipolar Disorder. *Frontiers in psychiatry*, 11, 500. <https://doi.org/10.3389/fpsy.2020.00500>.

- Osbornek. (2015). Regulation of prescriptive authority for certified nurse-midwives and certified midwives: 2015 national overview. *Journal of Midwifery and Women's Health*, 60(5), 519-533.
- Paladine, H. L., Blenning, C. E., & Strangas, Y. (2019). Postpartum care: An approach to the fourth trimester. *American Family Physician*, 100(8), 485–491. PMID: 31613576.
- Pawluski, J. L., Lonstein, J. S., & Fleming, A. S. (2017). The neurobiology of postpartum anxiety and depression. *Trends in Neurosciences*, 40(2), 106–120. doi: 10.1016/j.tins.2016.11.009. Epub 2017 Jan 24. PMID: 28129895.
- Phillippi, J. C., & Barger, M. K. (2015). Midwives as primary care providers for women. *Journal of Midwifery & Women's Health*, 60(3), 250–257. <https://doi.org/10.1111/jmwh.12295>
- Pilliod, R. A., & Caughey, A.B. (2017). Fetal malpresentation and malposition: Diagnosis and management. *Obstetrics and Gynecology Clinics of North America*, 44(4), 631–643. doi: 10.1016/j.ogc.2017.08.003. PMID: 29078945.
- Renfrew, M. J., McFadden, A., Bastos, M. H., Campbell, J., Channon, A. A., Cheung, N. F., Silva, D. R., Downe, S., Kennedy, H. P., Malata, A., McCormick, F., Wick, L., & Declercq, E. (2014). Midwifery and quality care: findings from a new evidence-informed framework for maternal and newborn care [Review]. *Lancet*. [https://doi.org/10.1016/S0140-6736\(14\)60789-3](https://doi.org/10.1016/S0140-6736(14)60789-3)
- Substance Abuse and Mental Health Services Administration [SAMHSA]. (2022, May 10). *Statutes, Regulations, and Guidelines*. Medication Assisted Treatment (MAT): Statutes, Regulations and Guidelines. <https://www.samhsa.gov/medication-assisted-treatment/statutes-regulations-guidelines>
- Sandall, J., Soltani, H., Gates, S., Shennan, A., & Devane, D. (2016). Midwife-led continuity models versus other models of care for childbearing women. *Cochrane Database of Systematic Reviews*(4).
- Shorey, S., Chee C. Y. I., Ng, E. D., Chan, Y. H., Tam, W. W. S., & Chong, Y. S. (2018). Prevalence and incidence of postpartum depression among healthy mothers: A systematic review and meta-analysis. *Journal of Psychiatric Research*, 104, 235–248. doi: 10.1016/j.jpsychires.2018.08.001. Epub 2018 Aug 3. PMID: 30114665.
- Smith, D. C. (2016). Interprofessional collaboration in perinatal care: The future of midwifery. *Journal of Perinatal & Neonatal Nursing*. 30(3), 167–173. doi: 10.1097/JPN.000000000000187. PMID: 27465442.

- Sonenberg, A. (2010). Medicaid and state regulation of nurse-midwives: The challenge of data retrieval. *Policy, Politics, & Nursing Practice*, 11(4), 253–259. doi:10.1177/1527154411398137.
- Song, J. W., & Chung, K. C. (2010). Observational studies: cohort and case-control studies. *Plastic and Reconstructive Surgery*, 126(6), 2234–2242. doi: 10.1097/PRS.0b013e3181f44abc.
- Stedman, R. C., Connelly, N. A., Heberlein, T. A., Decker, D. J., & Allred, S. B. (2019). The end of the (research) world as we know it? Understanding and coping with declining response rates to mail surveys. *Society & Natural Resources*, 32(10), 1139–1154.
- Stucky, C. H., Brown, W. J., & Stucky, M. G. (2020). COVID 19: An unprecedented opportunity for nurse practitioners to reform healthcare and advocate for permanent full practice authority. *Nursing Forum*, 10.1111/nuf.12515. <https://doi.org/10.1111/nuf.12515>
- Teal S., & Edelman A. (2021). Contraception selection, effectiveness, and adverse effects: A review. *JAMA*, 326(24), 2507–2518. doi:10.1001/jama.2021.21392.
- Thornton, P. (2017). Characteristics of spontaneous births attended by midwives and physicians in US hospitals in 2014. *Journal of Midwifery & Women's Health*, 62(5), 531-537.
- Thumm, E. B., Smith, D. C., Squires, A. P., Breedlove, G., & Meek, P. M. (2021). Burnout of the US midwifery workforce and the role of practice environment. *Health Services Research*, 57(2), 351–363.
- Triebwasser, J. E., Kamdar, N. S., Langen, E. S., Moniz, M. H., Basu, T., Syrjamaki, J., Thomason, A. C., Smith, R. D., & Morgan, D. M. (2019). Hospital contribution to variation in rates of vaginal birth after cesarean. *Journal of Perinatology*, 39(7), 904–910.
- U.S. Bureau of Labor Statistics (2022). *Effects of COVID-19 pandemic and response on the consumer expenditure surveys*. U.S. Bureau of Labor Statistics. Available at: <https://www.bls.gov/covid19/effects-of-covid-19-pandemic-and-response-on-the-consumer-expenditure-surveys.htm> [Accessed March 9, 2022].
- Wang, T.-H., Pai, L.-W., Tzeng, Y.-L., Yeh, T.-P., & Teng, Y.-K. (2021). Effectiveness of nurses and midwives-led psychological interventions on reducing depression symptoms in the perinatal period: A systematic review and meta-analysis. *Nursing Open*, 8(5), 2117–2130. <https://doi.org/10.1002/nop2.764>

APPENDIX A. AMCB Research Committee Members

Name	Credentials	Position outside of AMCB	Expertise	Year of Initial AMCB Certification	ACNM Membership Region
Tanya Tanner	CNM, PhD, MBA, APN, PMHNP-BC, FACNM	Assistant Professor, Frontier Nursing University	Clinical practice, physiologic birth, research, distance midwifery education	1996	6
Cathy L. Emeis	CNM, PhD, FACNM	Associate Professor, Oregon Health & Science University	Clinical practice, research, midwifery educator, quality improvement	1998	7
Lydia Doublestein	CM, IBCLC	Midwife	Clinical practice, physiologic birth, precepting	2017	1
Carol Snapp	CNM, DNSc, FACNM	Visiting Professor, Chamberlain University	Clinical practice, community and small community hospital practice, and midwifery education	1983	3
E. Brie Thumm	CNM, PhD, MBA, FACNM	Assistant Professor, University of Colorado College of Nursing	Midwifery workforce research, psychometrics, dissemination & implementation science	2001	6

APPENDIX B. Psychometrician Biography

Dr. Deborah Schnipke is a Senior Psychometrician at ACS Ventures, LLC and has over 20 years of experience working in measurement and providing psychometric expertise for all aspects of the test development process in a variety of fields. Dr. Schnipke specializes in strategic planning and operational support for launching and sustaining assessment programs. She consults on the design and redesign of numerous testing programs, oversees test development operations for large- and small-scale programs, and conducts audits of testing programs. She is invested in ensuring that exams are reliable, valid, fair, and in compliance with industry standards, such as the AERA/APA/NCME standards and NCCA and ISO 17024:2012 accreditation standards. She has experience as a speaker, reviewer, discussant, and author for major psychometric journals and conferences. Dr. Schnipke earned her Ph.D. in Quantitative Psychology from Johns Hopkins University.

APPENDIX C. Email Invitation to Pre-Pilot Participants

Good afternoon _____,

The AMCB Research Committee is preparing to conduct the AMCB 2022 Task Analysis survey for midwives who have been certified within the past four years. AMCB conducts a task analysis survey every 5 years to meet The National Commission for Certifying Agencies (NCCA) Standards for the Accreditation of Certification Programs. The primary purpose of the task analysis survey is to identify the frequency and importance of activities carried out in clinical practice by those who have recently become AMCB certified.

Your contact information was provided to the Research Committee, and we are now requesting your participation in preparing the task analysis survey for the recent AMCB certificants. We would like your assistance to evaluate the clarity of the survey items and the clarity and appropriateness of the response options, to identify any problems with the flow of the survey or survey structure, and to provide us with any other comments you have about the survey. There will be areas provided throughout the survey to share your comments. You will be able to access the survey between April 26th and May 2nd. Completion of the survey should take you less than an hour- please time how long it takes you to complete it. The AMCB Manager of Data and Research will provide your deidentified feedback about the survey to the AMCB Research Committee after deleting any demographic and practice-related data. Please consider your analysis of the survey as if you were a midwife in practice for four years or less.

You may take the survey by clicking on the following link:

[AMCB Task Analysis Pre-Pilot Survey](#)

If the above link does not work, please copy and paste this into your browser: <https://redcap.amcbmidwife.org/redcap/surveys/?s=MLY7TYCAA>.

If you have any questions, please reply to this email.

Thank you for your time and assistance.

Research Committee

American Midwifery Certification Board

APPENDIX D. Email Invitation to Pilot Participants

Dear _____,

We are reaching out to you today in your role as _____ to ask for your assistance in preparing AMCB's upcoming Task Analysis survey for recent AMCB certificants. The AMCB Research Committee is preparing to conduct the 2022 Task Analysis survey for midwives who have been certified within the past four years. AMCB conducts a Task Analysis every 5 years to meet The National Commission for Certifying Agencies (NCCA) standards for the Accreditation of Certification Programs. The primary purpose of the Task Analysis is to identify the frequency and importance of activities performed in clinical practice by recently certified midwives. The Task Analysis results are one piece of data used by AMCB to determine the structure and content of the certification exam.

We are requesting your help to pilot test the Task Analysis survey to evaluate its clarity, content, and structure. When completing the survey, please assume you are a new midwife practicing in full-scope midwifery practice providing all types of pregnancy care and contraceptive services. The online survey will be accessible from Monday, June 28th to Sunday, July 12th. Completion of the survey should take you an hour or less and you may save your responses to finish it in more than one sitting. To save your responses and return later, please click the "Save and Return Later" button at the bottom of the page and note your individual survey code. When you return, click on the survey link in this email and then click the "Returning" button in the upper right-hand corner to input your code. When the survey closes, the AMCB Manager of Data and Research will provide your deidentified feedback to the AMCB Research Committee.

You may take the survey by clicking on the following link:

[AMCB Task Analysis Pilot Survey](#)

If the above link does not work, please copy and paste this into your browser:

<https://redcap.amcbmidwife.org/redcap/surveys/?s=MLY7TYCAA>

If you have any questions, please reply to this email.

Thank you for your time and assistance.

Research Committee

American Midwifery Certification Board

APPENDIX E. Initial Email Notice to Main Study Participants



american **midwifery** certification board



AMCB Certification
The Gold Standard
In Midwifery Certification
The Importance of AMCB Certification >

Dear Midwife:

The AMCB Research Committee is conducting a survey of midwives who first certified from 2018 to 2021. A Task Analysis survey is conducted by AMCB every five years for the purpose of identifying tasks that newly certified CNMs/CMs perform in practice. While participation in this AMCB Task Analysis is voluntary, it is very important to the midwifery profession because the results are used to help determine what types of questions appear on the AMCB Nurse Midwifery/ Midwifery Certification Examination.

Completing the survey will take about 1 hour. The time required will vary depending on your area(s) of practice. The majority of questions will ask you how often you perform certain midwifery tasks or care for patients with specific medical conditions and the importance of fundamental midwifery tasks. If you are not currently practicing, you will be asked to share your opinion about the importance of fundamental midwifery tasks. Other questions will ask you about basic demographic information or about your midwifery practice in general. Your participation is confidential, and your responses will be de-identified prior to data analysis. Presentation of the survey results will include only aggregate data.

We realize that your time is valuable, so as a token of our thanks, those who complete the survey in its entirety can receive **10 contact hours** toward AMCB recertification and to be entered to win a Visa e-gift card. Each week of the survey, 6 winners will receive a **\$100 Visa e-gift card**, and 1 grand prize winner will receive a **\$500 Visa e-gift card**. Fill out the survey in the first week, and you will have **21 chances to win!**

The online Task Analysis survey will be available from November 1st through November 21st.

We appreciate you for giving your valuable time to complete the survey and for your commitment to the midwifery profession. Should you have any questions, please reply to this email or contact Lori Havens, AMCB Manager of Data and Research at lhavens@amcbmidwife.org.

Sincerely,
Research Committee
American Midwifery Certification Board



© Copyright American Midwifery Certification Board, Inc. (AMCB)
Phone: 410-694-9424 • Fax: 410-694-9425 • amcbmidwife.org

You're receiving this because you have opted in to receive these types of communications. If you would like to adjust your [email communications](#), please sign in to the portal.

[Unsubscribe Here](#)



american **midwifery** certification board

APPENDIX F. Initial Email Invitation to Main Study Participants



american **midwifery** certification board



Dear Midwife:

The AMCB Research Committee is conducting a survey of midwives who first certified from 2018 to 2021. A Task Analysis survey is conducted by AMCB every five years for the purpose of identifying tasks that newly certified CNMs/CMs perform in practice. While participation in this AMCB Task Analysis is voluntary, it is very important to the midwifery profession because the results are used to help determine what types of questions appear on the AMCB Nurse-Midwifery/Midwifery Certification Examination.

Completing the survey will take about 1 hour. The time required will vary depending on your area(s) of practice. The majority of questions will ask you how often you perform certain midwifery tasks or care for patients with specific medical conditions and the importance of fundamental midwifery tasks. If you are not currently practicing, you will be asked to share your opinion about the importance of fundamental midwifery tasks. Other questions will ask you about basic demographic information or about your midwifery practice in general. Your participation is confidential, and your responses will be de-identified prior to data analysis. Presentation of the survey results will include only aggregate data.

We realize that your time is valuable, so as a token of our thanks, those who complete the survey in its entirety can receive **10 contact hours** toward AMCB recertification and to be entered to win a Visa e-gift card. Each week of the survey, 6 winners will receive a **\$100 Visa e-gift card**, and 1 grand prize winner will receive a **\$500 Visa e-gift card**. Fill out the survey in the first week, and you will have **21 chances to win!**

The online Task Analysis survey is available now through November 21st and may be completed in more than one sitting. Should you choose to leave the survey and return at a later time, please save your individual survey code and the link to the survey in a safe place, as you will need both of these to return to complete the survey.

We appreciate you for giving your valuable time to complete the survey and for your commitment to the midwifery profession. Should you have any questions, please reply to this email or contact Lori Havens, AMCB Manager of Data and Research at lhavens@amcbmidwife.org.

Sincerely,
Research Committee
American Midwifery Certification Board

You may open the survey in your web browser by clicking the link below:

[Task Analysis Survey](#)

If the link above does not work, try copying the link below into your web browser: <https://redcap.amcbmidwife.org/redcap/surveys/?s=MLY7TYCAA>



© Copyright American Midwifery Certification Board, Inc. (AMCB)
Phone: 410-694-9424 • Fax: 410-694-9425 • amcbmidwife.org

You're receiving this because you have opted in to receive these types of communications. If you would like to adjust your [email communications](#), please sign in to the portal.

[Unsubscribe Here](#)



american **midwifery** certification board

APPENDIX G. First Follow-Up Email Invitation Reminder to Main Study Participants



american **midwifery** certification board



Dear Midwife:

This is a follow-up email to remind you to please complete the AMCB Task Analysis survey if you haven't already. While participation in the Task Analysis is voluntary, it is very important to the midwifery profession because the results are used to help determine what types of questions appear on the AMCB Nurse-Midwifery/Midwifery Certification Examination.

Completing the survey will take about 1 hour. The time required will vary depending on your area(s) of practice. The majority of questions will ask you how often you perform certain midwifery tasks or care for patients with specific medical conditions and the importance of fundamental midwifery tasks. If you are not currently practicing, you will be asked to share your opinion about the importance of fundamental midwifery tasks. Other questions will ask you about basic demographic information or about your midwifery practice in general. Your participation is confidential, and your responses will be de-identified prior to data analysis. Presentation of the survey results will include only aggregate data.

We realize that your time is valuable, so as a token of our thanks, those who complete the survey in its entirety can receive **10 contact hours** toward AMCB recertification and to be entered to win a Visa e-gift card. Each week of the survey, 6 winners will receive a **\$100 Visa e-gift card**, and 1 grand prize winner will receive a **\$500 Visa e-gift card**. Fill out the survey in the first week, and you will have **21 chances to win!**

The online Task Analysis survey is available now through November 21st and may be completed in more than one sitting. Should you choose to leave the survey and return at a later time, please save your individual survey code and the link to the survey in a safe place, as you will need both of these to return to complete the survey.

We appreciate you for giving your valuable time to complete the survey and for your commitment to the midwifery profession. Should you have any questions, please reply to this email or contact Lori Havens, AMCB Manager of Data and Research at lhavens@amcbmidwife.org.

Sincerely,
Research Committee
American Midwifery Certification Board

You may open the survey in your web browser by clicking the link below:

[Task Analysis Survey](#)

If the link above does not work, try copying the link below into your web browser: <https://redcap.amcbmidwife.org/redcap/surveys/?s=MLY7TYCAAA>



© Copyright American Midwifery Certification Board, Inc. (AMCB)
Phone: 410-694-9424 • Fax: 410-694-9425 • amcbmidwife.org

You're receiving this because you have opted in to receive these types of communications. If you would like to adjust your [email communications](#), please sign in to the portal.

[Unsubscribe Here](#)



american **midwifery** certification board

APPENDIX H. Second Follow-Up Email Invitation Reminder to Main Study Participants



american **midwifery** certification board



Dear Midwife:

Don't delay completing the AMCB Task Analysis survey if you haven't already! The survey will close one week. While participation in the Task Analysis is voluntary, it is very important to the midwifery profession because the results are used to help determine what types of questions appear on the AMCB Nurse-Midwifery/Midwifery Certification Examination.

Completing the survey will take about 1 hour. The time required will vary depending on your area(s) of practice. The majority of questions will ask you how often you perform certain midwifery tasks or care for patients with specific medical conditions and the importance of fundamental midwifery tasks. If you are not currently practicing, you will be asked to share your opinion about the importance of fundamental midwifery tasks. Other questions will ask you about basic demographic information or about your midwifery practice in general. Your participation is confidential, and your responses will be de-identified prior to data analysis. Presentation of the survey results will include only aggregate data.

We realize that your time is valuable, so as a token of our thanks, those who complete the survey in its entirety can receive **10 contact hours** toward AMCB recertification and to be entered to win a Visa e-gift card. Each week of the survey, 6 winners will receive a **\$100 Visa e-gift card**, and 1 grand prize winner will receive a **\$500 Visa e-gift card**. Fill out the survey in the first week, and you will have **21 chances to win!**

The online Task Analysis survey is available now through **November 21st** and may be completed in more than one sitting. Should you choose to leave the survey and return at a later time, please save your individual survey code and the link to the survey in a safe place, as you will need both of these to return to complete the survey.

We appreciate you for giving your valuable time to complete the survey and for your commitment to the midwifery profession. Should you have any questions, please reply to this email or contact Lori Havens, AMCB Manager of Data and Research at lhavens@amcbmidwife.org.

Sincerely,
Research Committee
American Midwifery Certification Board

You may open the survey in your web browser by clicking the link below:

[Task Analysis Survey](#)

If the link above does not work, try copying the link below into your web browser: <https://redcap.amcbmidwife.org/redcap/surveys/?s=MLY7TYCAAA>



© Copyright American Midwifery Certification Board, Inc. (AMCB)
Phone: 410-694-9424 • Fax: 410-694-9425 • amcbmidwife.org

You're receiving this because you have opted in to receive these types of communications. If you would like to adjust your [email communications](#), please sign in to the portal.

[Unsubscribe Here](#)



american midwifery certification board

APPENDIX I. Social Media and Website Listings

AMCB Task Analysis Survey is coming!

Were you first certified between 2018-2021?

It's your time to shine!

Fill out the Task Analysis Survey starting on 11/1 to provide a valuable service to the profession of midwifery.

As a token of our thanks, those who complete the survey can receive **10 contact hours** toward AMCB recertification and will be entered to win a Visa e-gift card.

AMCB Task Analysis Survey is available!

Were you first certified between 2018-2021?

It's your time to shine!

Fill out the Task Analysis Survey between 11/1-11/21 to provide a valuable service to the profession of midwifery.

As a token of our thanks, those who complete the survey can receive **10 contact hours** toward AMCB recertification and will be entered to win a Visa e-gift card.

APPENDIX J. Additional Tables

Survey Response Tables

Table 1. Survey Response

Survey Response	Number	Percent	95% Confidence Interval
Surveys Sent	2,351	100%	
Bounce Backs	-42	1.80%	
Opt Outs	0	0%	
Surveys Delivered to Participants	2,309	98.2%	
Respondents			
Total Respondents	556	23.6%	
Removed for having no data at all (no responses to demographic questions or ratings on tasks or conditions)	-88	3.7%	
“All Respondents” group (excluding 88 respondents with no data)	468	20.3%	±4%
Removed for not currently practicing midwifery	-54	2.3%	
Removed for not rating any statements (did provide demographics)	-31	1.3%	
“Respondents Analyzed” group (Main sample)	383	16.3%	±5%

Table 2. Survey Completion

Completion	Frequency	Percent
Complete*	280	73.1%
Incomplete**	103	26.9%
Total	383	100%

*Complete = respondent clicked submit at the end of the survey

**Incomplete = respondent did not click submit at the end of the survey (did not reach end of the survey)

Demographic and Comparison Tables

Table 3. Comparison of Survey Respondents to Survey Population & AMCB Population: Credential

Credential	All Respondents		Respondents Analyzed		AMCB Population	
	Number	Percent	Number	Percent	Number	Percent
CM	7	1.5%	5	1.3%	118	.91%
CNM	461	98.5%	378	98.7%	12,872	99.09%
Total	468	100%	383	100%	12,990	100%

Table 4. Comparison of Survey Respondents to Survey Population & AMCB Population: Gender

Current Gender Identity (Check all that apply)	All Respondents		Respondents Analyzed		AMCB Population*	
	Number	Percent	Number	Percent	Number	Percent
Woman/Female	456	97.4%	374	97.7%	12,837	98.86%
Man/Male	5	1.1%	3	0.8%	98	.75%
Trans Female/Trans Woman	0	0.0%	0	0.0%		
Trans Male/Trans Man	1	0.2%	1	0.3%		
Gender Queer	2	0.4%	2	0.5%		
Gender Non-Conforming	4	0.9%	4	1.0%		
Gender Non-Binary	5	1.1%	5	1.3%		
Different identity [specify]: fluid	1	0.2%	1	0.3%		
Other					9	.07%
I choose not to respond	2	0.4%	2	0.5%	41	.32%
Total*	468	100.0%	383	100.0%	12,990	100%

*Totals do not equal the sum of each subgroup because respondents could select more than one option.

**Table 5. Comparison of Survey Respondents to Survey Population & AMCB Population:
Race**

Racial Identity (check all that apply)	All Respondents		Respondents Analyzed		AMCB Population	
	Number	Percent	Number	Percent	Number	Percent
American Indian or Alaskan Native	6	1.3%	6	1.6%	75	.58%
Asian	10	2.1%	6	1.6%	216	1.66%
Black or African American	31	6.6%	21	5.5%	890	6.85%
Hispanic or Latinx	31	6.6%	25	6.5%	614	4.73%
Native Hawaiian or Other Pacific Islander	2	0.4%	2	0.5%	25	.19%
White	396	84.6%	330	86.2%	11,104	85.52%
Other	2	0.4%	2	0.5%	168	1.29%
<i>Other [specify]: Irish</i>	1	0.2%	1	0.3%		
<i>Other [specify]: Jewish</i>	1	0.2%	1	0.3%		
I choose not to respond	11	2.4%	10	2.6%	426	3.28%
Total*	468	100.0%	383	100.0%	12,990	100%

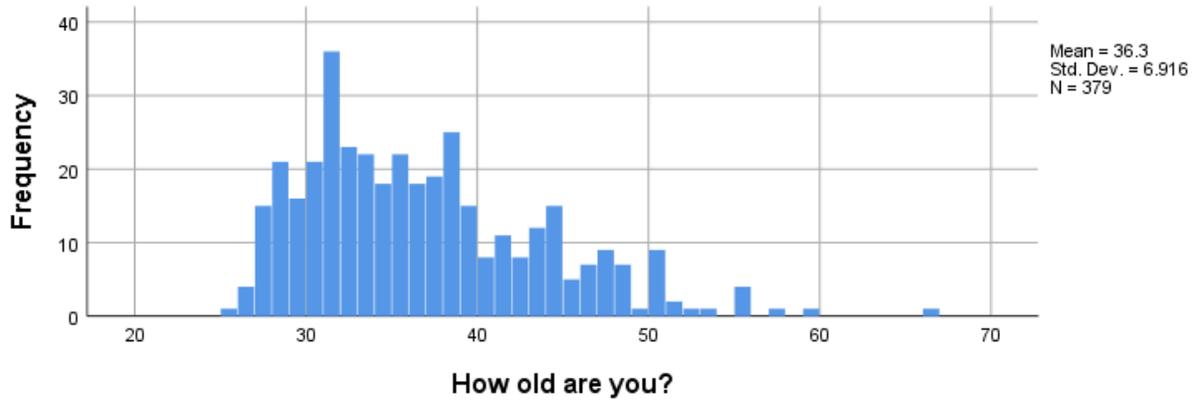
*Totals do not equal the sum of each subgroup because respondents could select more than one option.

**Table 6. Age
How old are you?**

Number of responses	379
Missing	4
Total	383
Mean	36.3
Median	35.0
SD	6.9
Minimum	25
Maximum	66

Figure 1. Age

How old are you?



Education and Certification Tables

Table 7. Highest Earned Degree

What is the highest degree you have earned?

Degree	Number	Percent
Master's Degree	331	86.4%
PhD Degree	3	.8%
DNP Degree	47	12.3%
Post master's certificate	2	.5%
Total	383	100%

Table 8. Post-Graduate/Fellowship Program

Have you attended a post graduate midwifery fellowship or residency program?

Attendance Status	Number	Percent
Never attended	359	93.7%
Previously attended	17	4.4%
Currently attending	7	1.8%
Total	383	100.0%

Table 9. Year Certified**What year were you certified by AMCB?**

Year	Number	Percent
2018	112	29.2%
2019	103	26.9%
2020	92	24.0%
2021	75	19.6%
No response	1	.3%
Total	383	100.0%

Table 10. Type of Certification**What AMCB certification do you have (hold)?**

Certification	Number	Percent
CM	5	1.3%
CNM	378	98.7%
Total	383	100%

Table 11. Other Certifications**What other certifications do you have (hold)? (check all that apply)**

Certification	Number	Percent	Valid Percent
Certified Professional Midwife (CPM))	9	2.3%	2.8%
Family Nurse Practitioner (FNP)	14	3.7%	4.3%
Women's Health Nurse Practitioner (WHNP or WHCNP)	92	24.0%	28.6%
Adult Nurse Practitioner (ANP)	4	1.0%	1.2%
Neonatal Nurse Practitioner (NNP)	0	0.0%	0.0%
Psychiatric-Mental Health Nurse Practitioner (PMHNP)	0	0.0%	0.0%
Sonographer (RDMS or Midwife Sonographer Certificate)	2	0.5%	0.6%
International Board-Certified Lactation Consultant (IBCLC)	19	5.0%	5.9%
Sexual Assault Nurse Examiner (SANE)	5	1.3%	1.6%
Other (See Table 29)	18	4.7%	5.6%
No additional certifications	169	44.1%	52.5%
Subtotal (at least one response)	322	84.1%	100.0%
No response	61	15.9%	
Total	383	100.0%	

Table 12. Other Certifications (specify)

What other certifications do you have (hold)*? (Other [specify])

Certification	Number*	Percent
Advanced Registered Nurse Practitioner	2	8%
Aromatherapist Level 3	1	4%
BC-ADM	1	4%
C-EFM	5	20%
Certified lactation counselor (CLC)	2	8%
NRP	1	4%
Nurse Educator/CNE	1	4%
Inpatient obstetrics certification	1	4%
Physician Assistant (PA-C)	1	4%
PMH-C	1	4%
RNC-OB	4	16%
Registered dietitian	1	4%
Reproductive Health Research Institute Fellow	1	4%
RN	1	4%
RNC-MNN	1	4%
Surgical Assistant - Certified SA-C	1	4%
Total	25	100%

*n=18 with some respondents indicating more than one certification.

Table. 13. Length of Practice

How long have you been practicing as a Certified Nurse-Midwife/Certified Midwife?

Time Practicing	Number	Percent
Not practicing yet	1	0.3%
Less than 6 months	72	18.8%
6 months up to 1 year	45	11.7%
1 year up to 2 years	106	27.7%
2 years up to 3 years	98	25.6%
Greater than 3 years	61	15.9%
Total	383	100.0%

Previous Nursing Experience Tables

Table 14. Previous RN Employment

Were you employed as an RN before you became an AMCB-certified midwife?

Response	Number	Percent
Yes	334	87.2%
No	49	12.8%
Total	383	100.0%

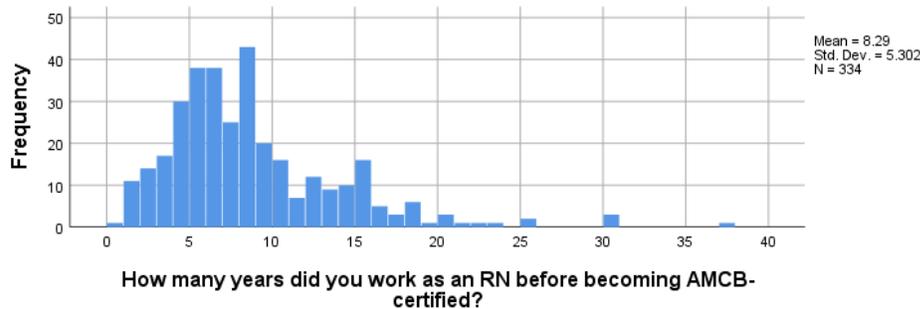
Table 15. Years Worked as RN

How many years did you work as an RN before becoming AMCB-certified?

Number of responses	334
Missing	0
Total (yes in Table 31)	334
Mean	8.3
Median	7.0
SD	5.3
Minimum	.4
Maximum	37

Figure 2. Years Worked as RN

How many years did you work as an RN before becoming AMCB-certified?



Employment Tables

Table 16. *Currently Practicing Midwifery*

Are you currently providing midwifery care? (“All Respondents” group)

Response	Number	Percent
Yes	414	88.5%
No	54	11.5%
Total	468	100.0%

Table 17. *Reason not Employed in Midwifery*

Please share why you are not currently employed in midwifery.

Response	Number	Percent
Actively seeking midwifery employment	24	45.3
Unable to find a position	6	11.3
Not interested in midwifery practice at this time	1	1.9
Personal reasons (e.g., family obligations)	4	7.5
COVID-related	2	3.8
Decline to answer	1	1.9
Other	15	28.3
Total	53	100

Table 18. Reason not Employed in Midwifery (specify)

Please share why you are not currently employed in midwifery: Other [specify]

Response	Number
Awaiting credentialing	1
Credentialing pending	1
Finishing DNP program	1
Hired, waiting for start date	1
I will start in December	1
Maternity leave extended	1
New midwifery job starts in 1 week.	1
Accepted a position that will start in 2022	1
Will begin a WHNP post-graduate certificate program in January. Will wait until program completion and credentialing to search for advanced practice employment.	1
Currently working as an IBCLC.	
Working in non-profit as a nurse manager, figuring out what I want to do with my degree	1
Total	10

Table 19. Type of Midwifery Care Provided.

What kind of midwifery care do you provide? (CHECK ALL THAT APPLY)

Type of Practice	Number	Percent
Antepartum care (including OB triage)	365	95.3%
Intrapartum care	345	90.1%
Postpartum care	359	93.7%
Newborn care	97	25.3%
Gynecologic/Reproductive care	362	94.5%
Primary care	217	56.7%
Total*	383	

*Total does not equal the sum of the options because respondents checked all that applied.

Table 20. Percentage of Practice Dealing with Abnormal Conditions per 2012, 2017, and 2022 Task Analyses

What percentage of your overall practice deals with patients with abnormal conditions?

Responses	2021	2017	2012
Number of responses	280	292	--
Missing*	103	56	--
Total	383	292	
Mean	53.75	48.35	41.0
Median	50	--	--
SD	23.293	21.53	--
Minimum	0	--	--
Maximum	100	--	--

*103 respondents did not reach the Final Thoughts section at the end of the survey.

Figure 3. Percentage of Practice Dealing with Abnormal Conditions.

What percentage of your overall practice deals with patients with abnormal conditions?

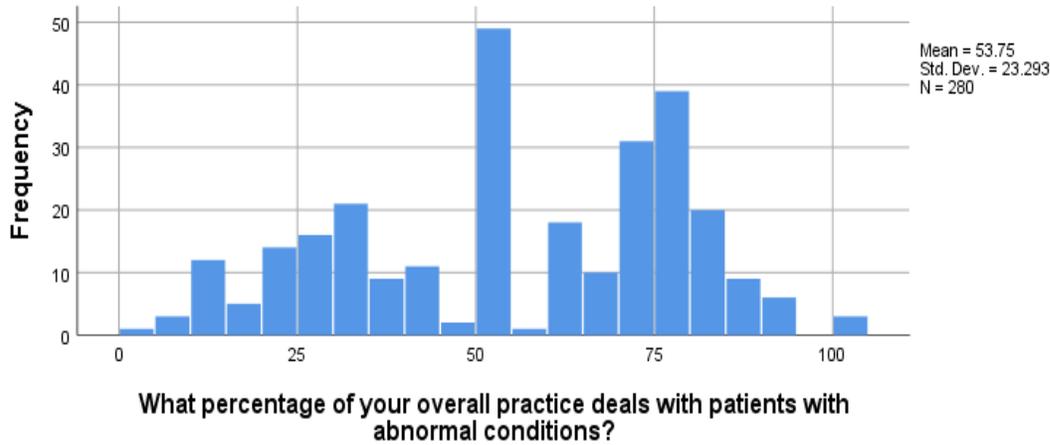


Table 21. Average Number of Midwifery Work Hours per Week.

Average number of hours worked per week in midwifery:

Hours	Number	Percent
80+ hours	12	3.1%
60-80 hours	38	9.9%
40-60 hours	242	63.2%
20-40 hours	72	18.8%
0-20 hours	19	5.0%
Total	383	100

Table 22. Type of Primary Midwifery Employer

Which of the following best describes your PRIMARY midwifery employer?

Employer	Number	Percent
(Nurse) Midwifery Group	58	15.1%
Community Health Center	47	12.3%
Educational Institution	3	0.8%
Federal Government/Military	10	2.6%
Health Maintenance Organization (HMO)	3	0.8%
Hospital/Medical Center/Academic Health Center	127	33.2%
Physician Group	111	29%
Self-employed/solo practice	16	4.2%
Other	8	2.1%
Total	383	100

Table 23. Primary Midwifery Employer (other).

Which of the following best describes your PRIMARY midwifery employer? (Other)

Response	Number
Birth Center	3
Crisis pregnancy center	1
FNPs & CNMs (midwifery and family practice combines)	1
Private practice of midwifery-physician collaborative	2
Telehealth startup	1
Total	8

Table 24. Zip Code of Primary Employer

The zip code of your PRIMARY employer is (reported by state):

State	n	%	State	n	%	State	n	%
Alaska	7	1.9	Maine	4	1.1	Oklahoma	2	0.5
Arizona	6	1.6	Maryland	10	2.7	Oregon	10	2.7
California	16	4.3	Massachusetts	7	1.9	Pennsylvania	16	4.3
Colorado	18	4.9	Michigan	8	2.2	Rhode Island	1	0.3
Connecticut	7	1.9	Minnesota	15	4.1	South Carolina	1	0.3
Delaware	1	0.3	Missouri	4	1.1	South Dakota	3	0.8
Florida	8	2.2	Montana	3	0.8	Tennessee	10	2.7
Georgia	11	3	Nebraska	1	0.3	Texas	16	4.3
Hawaii	1	0.3	Nevada	2	0.5	Utah	1	0.3
Idaho	3	0.8	New Hampshire	1	0.3	Vermont	3	0.8
Illinois	20	5.4	New Jersey	13	3.5	Virginia	19	5.1
Indiana	5	1.4	New Mexico	9	2.4	Washington	18	4.9
Iowa	6	1.6	New York	30	8.1	Wisconsin	16	4.3
Kansas	1	0.3	North Carolina	15	4.1	Wyoming	1	0.3
Kentucky	2	0.5	North Dakota	4	1.1	Total	369	100
Louisiana	3	0.8	Ohio	11	3	(missing data n=14)		

Figure 4. State of Primary Employer
State of Primary Employer

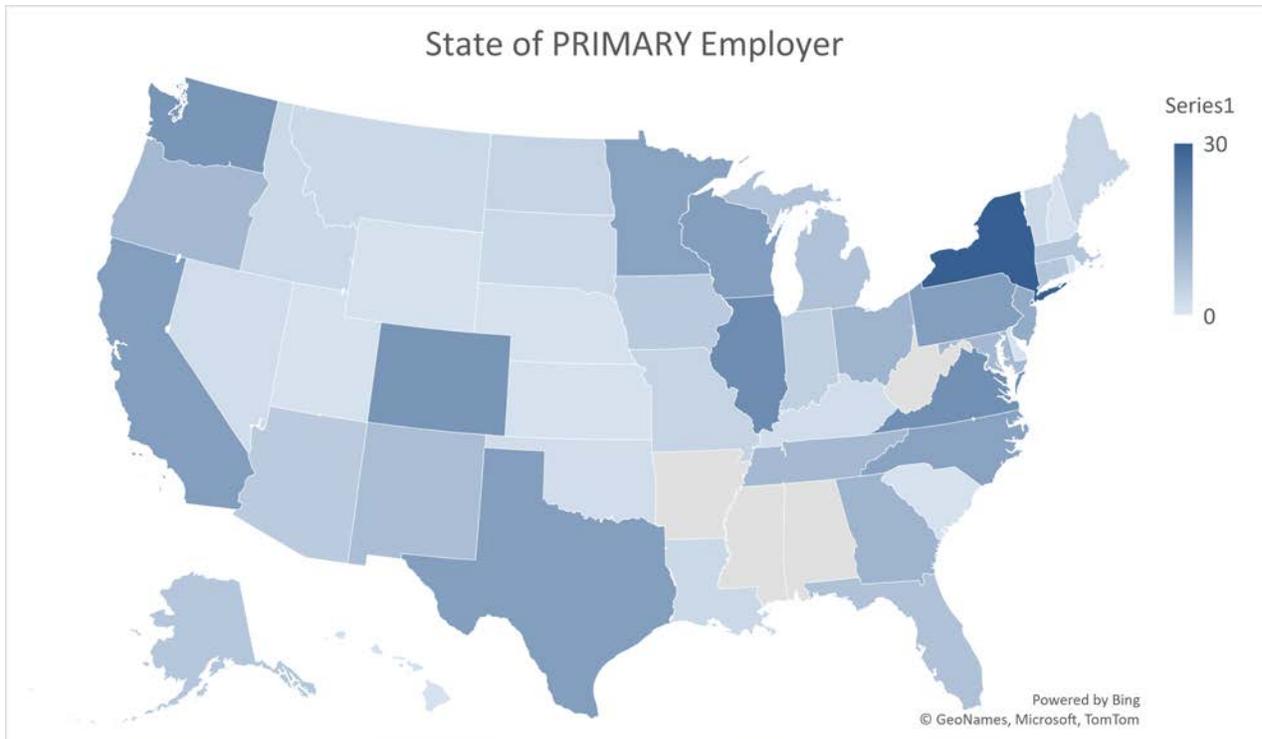


Table 25. Additional State Locations

In addition to your primary US state or location, do you practice in any additional US states or locations? (Not including volunteer work).

Response	Number	Percent
No	349	94.6%
Yes	20	5.4%
Total Valid Cases	369	100.0

Table 26. Prescriptive Authority

Do you have prescriptive authority?

Response	Number	Percent
Yes	365	95.3%
No	9	2.3%
Pending	8	2.1%
No response	1	.3%
Total	383	100.0%

Table 27. Hospital Privileges

Do you have hospital privileges?

Response	Number	Percent
Yes	289	75.5%
No	75	19.6%
Pending	19	5.0%
Total	383	100.0%

Table 28. Hospital Staff Membership

Do you have hospital staff membership through any of the following routes?

Response	Number	Percent
Medical staff	106	36.7%
Allied Health staff	45	15.6%
I do not know	100	34.6%
None	38	13.1%
Total	289	100%

Table 29. Voting Hospital Staff Membership

Are you a voting member of the medical staff?

Response	Number	Percent
No	160	55.4%
Yes	31	10.7%
I do not know	98	33.9%
Total	289	100%

Professional Issues Tables

Eligibility Requirements for Candidates from an Educational Program for Nurse-Midwives:

- Proof of licensure, active on the date of the examination, as a U.S. Registered Nurse (i.e., in one of the fifty states, the District of Columbia, or U.S. territory)
- Satisfactory completion of a graduate degree or has met the institutional requirements for a graduate degree from a program accredited by or with pre-accreditation status from the Accreditation Commission for Midwifery Education (ACME).
- Verification by the director of the midwifery program confirming the candidate has met the institutional requirements for a graduate degree, and the date it was completed.
- Attestation by the director of the midwifery program that the candidate is performing at the level of a safe, beginning practitioner.

Table 30. Necessity of Current Eligibility Requirements to Achieve Competence (CNM).

In your opinion, are the current eligibility requirements for candidates from Nurse-Midwifery Educational Programs to take the AMCB examination necessary to achieve competence as a midwife?

Response	Number	Valid Percent
Yes	266	95.0%
No	14	5.0%
Missing*	103	--
Total	383	100%

*This question was asked at the end of the survey, which was not reached by 103 respondents.

Eligibility Requirements for Candidates from an Educational Program for Certified Midwives:

- Satisfactory completion of a graduate degree or has met the institutional requirements for a graduate degree from a program accredited by or with pre-accreditation status from ACME.
- Verification by the director of the midwifery program confirming the candidate has met the institutional requirements for a graduate degree, and the date it was completed.
- Attestation by the director of the midwifery program that the candidate is performing at the level of a safe, beginning practitioner.

Table 31. Necessity of Current Eligibility Requirements to Achieve Competence (CM).

In your opinion are the current eligibility requirements (listed above) for candidates from Midwifery Education Programs to take the AMCB exam necessary to achieve competence as a midwife?

Response	Number	Valid Percent
Yes	266	95.0%
No	14	5.0%
Missing*	103	
Total	383	100.0%

*This question was asked at the end of the survey, which was not reached by 103 respondents.

Requirements for CNM/CM Recertification from AMCB:

Option 1: AMCB Certificate Maintenance Module Method

- Successfully complete 3 AMCB Certificate Maintenance Modules during the five-year certification cycle. The five-year cycle begins with the year following certification. One module must be completed in EACH of the three areas of practice: Antepartum and Primary Care of the Pregnant Woman; Intrapartum, Postpartum and Newborn; and Gynecology and Primary Care for the Well-Woman.

AND

- Obtain 20 contact hours of approved continuing education units. The Certificate Maintenance Modules completed cannot count toward the required 20 contact hours.

OR

Option 2: Reexamination Method

Take the current AMCB Certification Examination no sooner than the fourth (4th) year of the current five-year certification cycle.

Table 32. Appropriateness of Current Recertification Requirements to Maintain Competence
In your opinion, after the certification is obtained, are the recertification requirements (listed above) appropriate to maintain competence as a midwife?

Response	Number	Valid Percent
Yes	266	95.0%
No	14	5.0%
Missing*	103	
Total	383	100.0%

*This question was asked at the end of the survey, which was not reached by 103 respondents.

Survey-Related Tables

Table 33. Time Required to Complete Survey

Approximately how many minutes did it take you to complete the survey?

Responses	Statistic
Number of responses	276
Missing*	107
Total	383
Mean	53
Median	55
Mode (most frequent response)	60
SD	20.6
Minimum	4
Maximum	180

*103 respondents did not reach the Final Thoughts section at the end of the survey. On this question, an additional 4 respondents chose not to answer.

Figure 5. Time Required to Complete Survey

Approximately how many minutes did it take you to complete the survey?

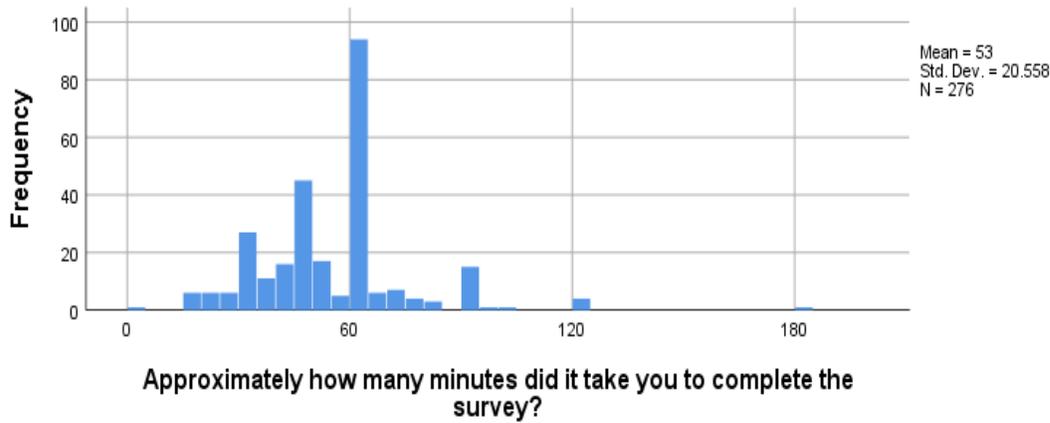
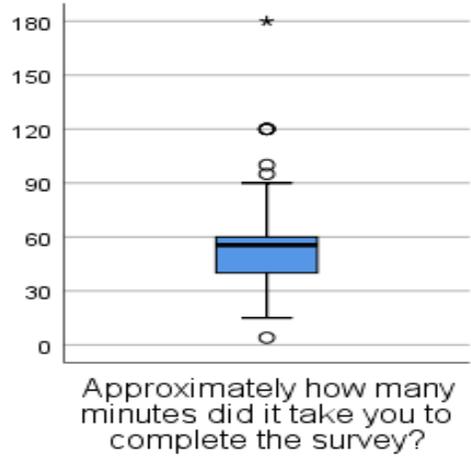


Figure 6. Time Required to Complete Survey

Approximately how many minutes did it take you to complete the survey?



In the boxplot to the left, the median (55 minutes) is displayed as the black horizontal line in the middle of the blue box. The bottom and top of the blue box show the 25th and 75th percentiles, thus 50% of the number of minutes fall within the blue box (within 40 to 60 minutes) and approximately 95% fall within the solid lines extending above and below the box (15–90 minutes). Extreme outliers are shown with circles and asterisk.

Table 34. Clarity of Directions

Were the directions in the survey clear?

Response	Number	Valid Percent
Yes	273	97.5
No	7	2.5
Total	280	100
Missing*	103	
Total	383	

*103 respondents did not reach the Final Thoughts section at the end of the survey.

Table 35. Clarity of Directions, comments

Were the directions in the survey clear?

Comments
The answers of some of the questions open a box asking why you selected no when you didn't select no but don't open the box if you actually select no. Directions were clear but some answer wording were not consistent with question.
The directions were clear, but I do not do much antepartum care, so the importance of some of these skills was hard to determine for me. I do mostly GYN first assist and see GYN patients in clinic.
The importance question paired with almost every question is a waste of time.
The part of the question that asked how important it was for midwives to be able to independently manage the conditions was somewhat confusing and difficult to answer. Many of the conditions that had the "importance" aspect of the question I thought were outside of our scope of practice to manage independently, but I still think it is important for midwives to have a familiarity and comfort level with evaluation for the condition and initial tx at the very least (i.e. pre-eclampsia with severe features).
The question of the importance of tasks did not seem to be useful information to me.
It was confusing that some parts were about my practice and others were about general midwifery practice/competency - sometimes I forgot which was being asked about in terms of importance.
Mostly, few spelling errors, should have been a place for "n/a" under "Importance," and FIX THE YES/NO tabs!
Several of the Yes buttons actually popped up in the section to add additional comments as if I had clicked "no.". It is an unfortunate and frustrating glitch.

Table 36. Distribution of Practice Across 6 Midwifery Practice Domains

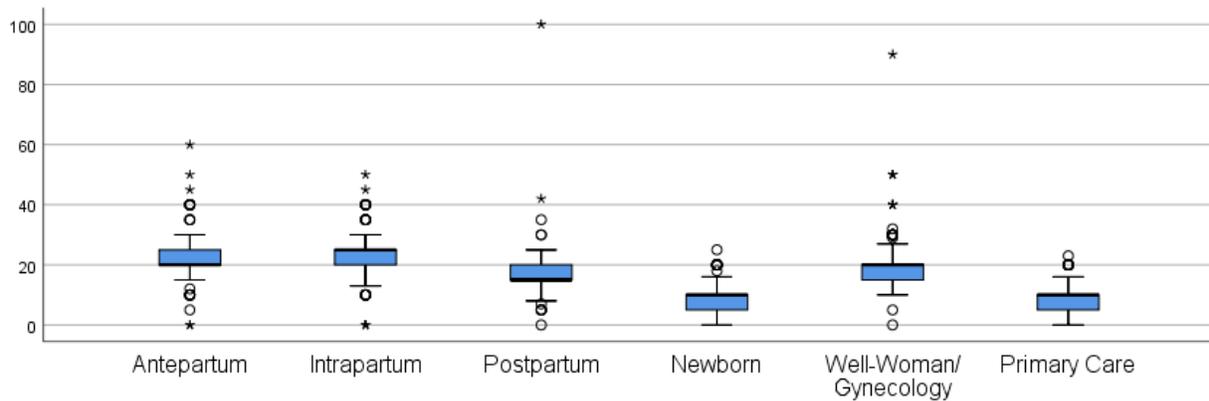
What percentage of exam items would you assign to each of the following six areas of midwifery practice based on its importance to clinical midwifery practice?

	Antepartum	Intrapartum	Postpartum	Newborn	Gynecologic/ Reproductive care	Primary Care
Number of Responses	280	280	280	280	280	280
Missing*	103	103	103	103	103	103
Total	383	383	383	383	383	383
Mean	22.7	23.8	16.9	8.3	18.7	9.6
Median	20	25	15	10	20	10
SD	6.3	6.4	7.1	4.5	8.1	4.2
Minimum	0	0	0	0	0	0
Maximum	60	50	100	25	90	23

*103 respondents did not reach the Final Thoughts section at the end of the survey.

Figure 7. Distribution of Practice Across 6 Midwifery Practice Domains

What percentage of exam items would you assign to each of the following six areas of midwifery practice based on its importance to clinical midwifery practice?



In the boxplots above, the median is displayed as the black horizontal line in the middle of the blue box. The bottom and top of the blue box show the 25th and 75th percentiles, thus 50% of responses fall within the blue box and approximately 95% fall within the solid lines extending above and below the box. Extreme outliers are shown with the circles and asterisks.

COVID Tables

Table 37. Impact of COVID on Midwifery Work

How has the COVID pandemic impacted working as a midwife?

Response	Number
I am recovering from health issues and am looking for the safest environment to work in.	1
I was placed on unpaid administrative leave this morning for declining to receive the COVID injection.	1
Total	2

Table 38. Impact of COVID on Scope of Midwifery Practice

Has COVID impacted your scope of midwifery practice?

Response	Frequency	Valid Percent
Yes (<i>see Table 24</i>)	149	53.4
No	130	46.6
Total	279	100
Missing	104	---
Total	383	--

Table 39. Impact of COVID on Scope of Midwifery Practice

How has the COVID pandemic impacted your scope of midwifery practice?

Response	Number
Give recommendations for women with Covid, vaccines, refer/consult for severe illness.	1
I have managed Covid and non Covid patients with great results.	1
I started in the middle of the pandemic so it has not impacted my scope at all, plus I'm birth center, so we don't care for women who have active Covid in labor. I think it may have enabled me to get a job, though as the birth center's volume increased as a result of pandemic restrictions in the hospital.	1
It did not impact my scope but it did impact my training and student experience greatly as it was quite difficult last year to find sites who would take students.	1
It has limited the assessment of family and partner dynamics due to limiting number of support people and ability of partners to come to appointments	1
Not the scope, but did cause our practice to stop group care	1

Table 39. *Impact of COVID on Scope of Midwifery Practice, cont.*

How has the COVID pandemic impacted your scope of midwifery practice?

Response	Number
Started practicing after Covid began, not sure how my scope would be different	1
Telehealth was initiated.	1
We do a lot of education on social distancing, etc and recommendations for vaccination. There has been an increase in PMAD to navigate with patients. We haven't had many Covid positive patients in labor.	1
Yes it has affected my practice, COVID has created changes in allowed support systems in the hospital, and staff shortages.	1
Total	10

APPENDIX K. Task Analysis Survey Directions

Thank you for taking the time to complete this survey. This survey describes skills (tasks) performed by CNMs and CMs who practice in the United States. The purpose of the survey is to identify tasks new midwives perform in practice and to use this information to inform the content included on the national AMCB certification exam.

You will be asked to make determinations about specific tasks in your current clinical practice. Please read each task carefully and respond according to the instructions provided. You will be asked to report your domains of midwifery practice. You will only see questions that pertain to the domains you indicate, and you may skip any items that you wish.

We realize that your time is valuable, so as a token of our thanks, those who complete the survey in its entirety can receive **10 contact hours** toward AMCB recertification and will be entered to win a Visa e-gift card. Each week of the survey, 6 winners will receive a **\$100 Visa e-gift card**, and 1 grand prize winner will receive a **\$500 Visa e-gift card**. Fill out the survey in the first week, and you will have **21 chances to win!**

Filling out this survey constitutes your informed consent to voluntarily participate in this project. No identifying information will be linked to your responses. We appreciate your participation in this survey. You will be providing a valuable service to the profession of midwifery.

Helpful hints:

- We suggest completing the survey on a full screen device (not a mobile phone).
- The survey will take about 1 hour to complete.
- When taking the survey **DO NOT CLICK** the “**Back**” button in your browser. If you wish to return to the previous screen, please click “**Previous Page**”.
- When you are finished with a page, click “**Next**”. Continue until the last page where you can click “**Submit**”.

- If you must leave the survey prior to completion, you need to click "**Save and Return**". Please make a note of the code as you will need this to resume the survey. When you return to the survey, please click the "**Returning?**" button in the upper-right corner of this page and enter your code.

AMCB Research Committee

APPENDIX L. Exploratory Items

Antepartum Task Statements
Performs first-trimester ultrasound to establish or confirm gestational age.
Provides medication-assisted treatment (MAT) for opioid dependence during pregnancy.
Performs and interprets biophysical profile to evaluate fetal wellbeing.
Performs third-trimester limited ultrasound to assess amniotic fluid volume, fetal presentation, and/or placental location.
Provides antepartum care for multifetal pregnancy.
Intrapartum Task Statements
Uses ultrasound in labor to determine fetal presentation and fetal position.
First assists at cesarean birth.
Postpartum Task Statements
NONE
Newborn Task Statements
Performs infant intubation.
Orders and interprets bilirubin levels.
Gynecology Task Statements
Provides guidance and counseling regarding gender-affirming hormonal therapy.
Prescribes and manages gender-affirming hormonal therapy.
Counsels about Pre-Exposure Prophylaxis (PrEP) for HIV prevention.
Prescribes PrEP for HIV prevention.
Performs limited pelvic/transvaginal ultrasound for intrauterine device localization.
Performs complete pelvic/transvaginal ultrasound.
Performs pre-hysterectomy and post-hysterectomy counseling.
Performs manual vacuum aspiration to electively terminate pregnancy.
Prescribes pharmaceuticals for treatment of infertility.
Primary Care Task Statements
Prescribes medication-assisted treatment (MAT) for opioid use disorder.

At the time of the 2022 Task Analysis Survey, the term “medication-assisted treatment” (MAT) was being used instead of the current “medications for opioid use disorder” (MOUD) (SAMHSA, 2022).. For consistency, we have retained that terminology.

APPENDIX M. AMCB Board of Directors Approved Tasks for Removal from Exam Blueprint

Domain	Task
Intrapartum	Performs vacuum assisted birth
	Administers pudendal anesthesia
Newborn	Manages infant who requires phototherapy
Gynecology	Provides paracervical block in the outpatient setting
	Performs vulvar biopsy
	First assists with gynecological surgery
Primary Care	Sutures minor wounds (not including perineal/vaginal/vulvar lacerations)